

Accounting Methodology Document

Relating to the 2020 Regulatory Financial Statements

1	INT	RODUCTION	1
	1.1	REGULATORY REPORTING REQUIREMENTS	1
	1.2	Introduction to the AMD	
	1.3	SCOPE OF DOCUMENT	
	1.4	STRUCTURE AND PURPOSE OF THE AMD	
2	RUS	SINESS AND SYSTEM OVERVIEW	Δ
_			
	2.1	BT Group and regulatory reporting	
	2.2	THE REPORTING HIERARCHY FOR USE IN THE AS SYSTEM	
	2.2. 2.2.		
	2.2. 2.2.		
	2.2.	The AS System, CostPerform	
	2.3.	,	
	2.3. 2.3.	·	
	2.3. 2.3.	, , , , , , , , , , , , , , , , , , , ,	
	_		
3	ATT	TRIBUTION METHODOLOGIES OVERVIEW	10
	3.1	Introduction	10
	3.2	INTRODUCTION TO THE SEQUENCING OF ATTRIBUTIONS AT THE FIRST PROCESSING LEVEL, LAYER 101	11
	3.3	INTRODUCTION TO ATTRIBUTION STAGES AFTER LAYER 101	12
	3.3.	1 Activity Groups to Plant Group or Rest of BT Residual (Processing layer L121-601 and 701)	12
	3.3.	2 Plant Groups to Component (Processing Layer 801)	12
	3.3.	3 Component to Service (Processing Layer 870)	12
	3.4	EXPLANATIONS OF ATTRIBUTION CONCEPTS	13
4	ACC	COUNTING POLICIES	15
	1 1	BASIS OF PREPARATION OF THE RFS	1 [
	4.1 4.2	PRINCIPLES OF VALUATION OF NON-CURRENT ASSETS	
	4.2	PROPERTY, PLANT AND EQUIPMENT AND SOFTWARE INTANGIBLE ASSETS	
	4.5	CURRENT COST OF PROPERTY, PLANT AND EQUIPMENT AND SOFTWARE INTANGIBLE ASSETS	
	4.4	DEPRECIATION	
	4.6	GOVERNMENT GRANTS	
5	CCA	A VALUATION METHODS	18
	5.1	Introduction	18
	5.2	CHOICE OF VALUATION METHOD	19
	5.2.	1 New technology and its use as MEA	19
	5.2.		
	5.2.	3 Choice and application of indices for Indexation Method	20
	5.2.	4 Depreciation	20
	5.2.	5 Disposals, write-outs and write offs	20
	5.3	DETAILED VALUATION METHODOLOGY	20
	5.3.	1 Introduction	20
	5.3.	5	
	5.3.	<i>3</i> Access – Copper	21

5	3.4 Fibre	21
5	3.5 Duct	21
5	3.6 Voice Switch	22
5	3.7 System X Local Switches	22
5	3.8 Transmission	24
5	3.9 Other	24
6 DI	IRECT ALLOCATIONS	26
7 AF	PPORTIONMENT MODELS	27
7.1	INTRODUCTION TO APPORTIONMENT MODEL BASES AT LAYER 101	27
7.2	APPORTIONMENT MODEL DICTIONARY – RULE TYPE 3 BASES	27
7.3	OUC DRIVEN BASES — RULE TYPE 3 BASES	71
7	3.1 Introduction	71
7	3.2 Detail for each CFU and CU's OUC-driven bases	71
7	3.3 Openreach (OUC B)	71
7	3.4 Group (OUC C)	72
7	3.5 Corporate adjustments (OUC E)	72
7	3.6 BT Facilities Management (OUC F)	72
7	3.7 EE (OUC S (2018/19: G))	72
7	3.8 BT Business & Public Sector (OUC N (2018/19: H))	73
7	3.9 Enterprise (OUC N)	73
7	3.10 Technology (OUC T)	73
7	3.11 Security (OUC V)	75
7	3.12 Property (OUC W)	75
7	3.13 Group Procurement (OUC Y)	76
7	3.14 Group Consolidation Units (OUC Z)	76
8 TF	RANSFER CHARGES	77
8.1	INTRODUCTION TO TRANSFER CHARGING	77
8.2	Transfer charges – charges which do not net to nil within the SMP Markets	79
8.3	Transfer charges as a basis for cost attribution	79
9 A0	CTIVITY GROUPS	80
9.1	Introduction to Activity Groups	80
9.2	ACTIVITY GROUP DICTIONARY	81
9.3	WACC PERCENTAGES	88
10	PLANT GROUPS	89
10.1	Introduction to Plant Groups	89
10.2	PLANT GROUP DICTIONARY	90
10.3	WACC PERCENTAGES	172
11	COMPONENTS	179
11.1	Introduction to Components	179
11.2	COMPONENT TO SERVICE ATTRIBUTION	179
11	1.2.1 Introduction to factors and factored volumes	179
11	1.2.2 Derivation of usage factors	180
11.3	COMPONENT TO SUPER COMPONENT MAPPING AND USAGE FACTORS	181
11.4	COMPONENT TO SERVICE MAPPINGS INCLUDING USAGE FACTORS	226

12	PHYSICAL INFRASTRUCTURE ACCESS DOWNSTREAM COSTS	227
	PIA Downstream Costs	227
13	EQUIVALENCE OF INPUT SERVICES	229
	WBA Eol	229
ΔΝΝ	IEX 1 SECTORS	
1.		_
1.		
1.		
ANN	IEX 2 OPENREACH REPORTING	260
2.	1 Introduction	260
2.	2 OPENREACH PRODUCT GROUPS	260
2.	3 FORMAT OF THE OPENREACH INFORMATION STATEMENTS	261
2.	4 DISAGGREGATING SMP DEFINED INFORMATION INTO OPENREACH REGULATORY STATEMENTS	261
2.	5 OPENREACH REVENUE	261
2.	6 RECONCILIATION OF OPENREACH INCOME STATEMENT	261
ANN	IEX 3 DATA SOURCES	262
3.	1 Introduction	262
3.	2 HIGH LEVEL SUMMARY OF SYSTEMS	262
3.	3 DETAILED SUMMARY OF SYSTEMS	263
3.	4 OTHER DATA SOURCES	269
3.	5 21CN VOLUMES AND CAPITAL	271
ANN	IEX 4 ELECTRICITY PRICE REPORTING	273
4.	1 Direction	273
4.	2 BT ELECTRICITY CHARGE CALCULATION	273
4.	3 CONTRACT INFORMATION AND BREAKDOWN	274
4.	4 COST ATTRIBUTION PROCESS FOR LLU RELATED ELECTRICITY COSTS	274
ANN	IEX 5 DETAILED VALUATION METHODOLOGY BIBLIOGRAPHY	275
ANN	IEX 6 STUDIES AND DATA SOURCES IN CURRENT COST ACCOUNTING VALUATIONS	276
ANN	IEX 7 INDICES AND TRENDS USED IN CURRENT COST ACCOUNTING	277
ANN	IEX 8 F8 CODE MARKERS	278
8.	1. Finance Types	278
	2. Transaction Types	
	3. Summary Types	
ANN	IEX 9 DETAILED ATTRIBUTION TABLES	280

1 Introduction

1.1 Regulatory reporting requirements

BT predominantly operates within the UK telecommunications sector. We are regulated by Ofcom (the UK's independent communications regulator, www.ofcom.org.uk), the Communications Act 2003, various European Union Directives, and other regulations and recommendations.

A key part of this regulation relates to regulatory financial reporting obligations imposed by Ofcom to monitor and enforce other obligations and directions. We are required to demonstrate compliance with these obligations in certain Markets in which we have Significant Market Power (SMP), principally through the Regulatory Financial Statements (RFS) we produce each financial year.

1.2 Introduction to the AMD

Each financial year, the Accounting Methodology Document (AMD) is published alongside the RFS. The AMD sets out the basis on which we prepare the RFS, and acts as a guide to the framework, methodologies, principles and systems that relate to it.

As part of this, the AMD shows that we have prepared the RFS in compliance with the SMP conditions that apply to BT and, along with the Wholesale Catalogue, serves as the basis for the RFS' Properly Prepared in Accordance With (PPIA) audit opinions.

The Long Run Incremental Cost Model Relationships and Parameters (LRIC Model R&P) document is published as part of the AMD in a separate annex.

The Wholesale Catalogue

The Wholesale Catalogue describes the wholesale services included in the Wholesale SMP Markets and technical areas where BT has a regulatory financial reporting obligation. It is published alongside both the AMD and the RFS.

1.3 Scope of document

The dictionary sections within the AMD have been written specifically to describe substantially all of the attribution of the total ledger value, ensuring we describe the methodologies of at least 90% of the attributions for any SMP market in absolute terms.

The document follows this principle of identifying only those material items, rather than the total population of items that are relevant to a methodology. Key destination tables, presented in the Annex published separately on the Company's website, specify the destinations of at least 90% of the costs attributed by a methodology.

1.4 Structure and purpose of the AMD

The AMD is used to describe:

- The legal and accounting frameworks under which the RFS are prepared;
- The costing principles used by BT to prepare the RFS on a Fully Allocated Cost (FAC) basis;
- The methods used in the Accounting Separation (AS) process to attribute revenue, costs and capital employed to the Markets and Technical Areas in the RFS;
- The systems and processes used by BT to support AS; and
- The valuation principles employed to value assets on a current cost basis.

The AMD is structured into three parts:

- Part A, which introduces principles and concepts behind regulatory reporting (Section: 2-6);
- Part B, which consists of detailed dictionary sections, explaining the methodologies used within each stage
 of our cost allocation process (Sections 7-12);
- The Annexes, which provide further relevant reference information (Annexes 1-9). These are published alongside the AMD or, in some cases, as a separate document on our website.

AMD Sections

The AMD consists of sections explaining the different stages of the Accounting Separation (AS) process. AS is the method by which we attribute costs, revenues and capital employed to the defined Markets and Technical Areas of BT.

1

Section	Contents
Section 1: Introduction	Introduction and guide to the AMD and its content.
Section 2: Business and systems overview	Overview of the BT business, introduction to AS; describes how ledger data is transformed to data input into the AS system, CostPerform.
Section 3: Attribution methodologies overview	Introduction to concept of cost attribution and process flows from high level ledger costs through to Products and Services.
Section 4: Accounting policies	Basis of preparation of the RFS, highlighting differences between BT's annual report and the RFS.
Section 5: CCA valuation methods	Description of specific valuation methodologies used to value non- current assets.
Section 6: Direct allocations	Description of costs attributed directly without the use of an apportionment model.
Section 7: Apportionment models	Introduction to apportionment models used to calculated bases, and Organisational Unit Code (OUC) driven bases, including their position in attribution process.
Section 8: Transfer Charges	Explanation of intra-group transfers and their accounting treatment in the RFS.
Section 9: Activity groups	Introduction to Activity Groups (AGs) and their use in the attribution process, giving an overview of all material AGs and summary of methodologies applied to attribute costs to the next cost pool (Plant Groups (PGs) or Products).
Section 10: Plant groups	Introduction to PGs and their use in the attribution process. Overview of all material PGs and summary of methodologies used for each PG to attribute the costs to the next cost pool (Components).
Section 11: Components	Introduction to Components, their usage factors, and how these are used in the attribution process. Overview of all material components and usage factors, and the basis for them.
Section 12: Equivalence of input services (EoI)	Introduction to EoI charging and services used for this. Dictionary of Openreach charges which impact the WBA Markets.
Annex 1: Sectors	List and description of key CostPerform sectors involved in the cost allocation process.
Annex 2: Openreach reporting	Overview of our Openreach obligations which are in compliance with the Commitments.
Annex 3: Data sources	Dictionary of data sources.
Annex 4: Electricity price reporting	Description and explanation of our methodology for setting the electricity charges that are used in the cost attribution process.
Annex 5: Detailed valuation methodology bibliography	Bibliography of documents used as part of preparing our non-current asset valuation methodologies.
Annex 6: Studies and data sources in CCA valuations	List of studies and data sources used as part of our Current Cost Accounting (CCA) valuations.
Annex 7: Indices and trends used in CCA	List of indices and trends used in CCA.
Annex 8: F8 Code Markers	Characteristics of finance types, transaction types and summary types.
Annex 9: Detailed Attribution	Mapping of RFS asset categories to Plant Groups and Sectors
Tables	Table that identifies the key destinations of all bases described in the AMD.

PARTA -OVERVIEW

2 Business and system overview

This section provides:

- A brief overview of our business and our regulatory financial reporting obligations
- A description of how the underlying financial transactions supporting the business activities recorded in BT Group's financial ledgers are grouped into cost pools ('F8 groups') to provide the input costs, revenues, assets and the liabilities used by the AS system
- Description of our AS system, CostPerform.

2.1 BT Group and regulatory reporting

We are subject to regulatory financial reporting obligations for Markets and Technical Areas where we are deemed to have SMP.

We prepare the RFS which show our costs, revenues, assets and liabilities against regulatory Markets and Services as defined by Ofcom in their market reviews. The statements are prepared via the AS process and comprise a financial performance summary, review of financial performance by groupings of Markets and by individual Markets, and other information including the network activity statement, adjusted financial performance and reconciliation statements. For regulatory reporting purposes, revenue is derived from and recorded against a range of services which BT provides. Costs associated with operational and support activities undertaken to support the provision of these services are recorded against sectors such as planning and development, provision and installation, maintenance and plant support.

A list and description of all of our reporting sectors is available in Annex 1.

The Customer Facing Units (CFUs) and Corporate Units (CUs) within BT

BT operates as a single business, made up of different organisational units. There are two types of organisational unit in BT: customer-facing units that sell products and services and corporate units that support the whole of the group. The costs and assets of each unit are attributed using the AS system to create the RFS.

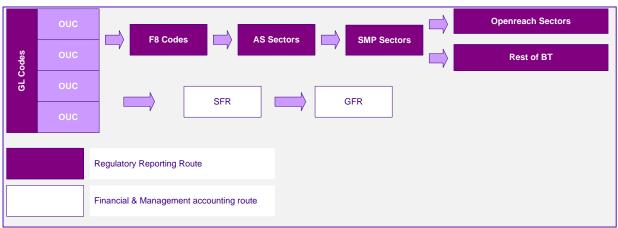
For 2019/20, the units were as follows:

Division	Name		
В	Openreach		
С	BT Group Headquarters		
E	Corporate Adjustments		
F	Facilities		
H, K, N, P	BT Enterprise, including (sub boxes)		
J, MB	BT Global Services		
S	BT Consumer		
Т	BT Technology		
V	Security		
W, R, YH	Property		
Υ	Group Procurement		

2.2 The reporting hierarchy for use in the AS system

Our financial cost allocation system, CostPerform, uses a hierarchy pyramid coding structure to support the data capture and information summation at the CFU and activities level. The diagram below shows the grouping of financial accounting information from general ledger cost accounts to F8 codes and sectors. The different levels of the hierarchy are discussed in sections 2.2.1 to 2.2.3.

BT's SMP Reporting and Coding Structures



2.2.1 Financial and Management Reporting route

Accounting Transaction (GL Codes) Layer

The costs, revenues, assets and liabilities of our main business activities (within the operating businesses of Consumer, Enterprise, Technology, Global Services, Openreach and other parts of the BT Group organisation) are recorded in the group General Ledger (GL) system.

Financial and Management Accounting (SFR Lines and Reports) Layer

General ledger codes are aggregated to Standard Financial Report (SFR) Lines. One or many GL Codes are aggregated to an SFR line which form the basis of BT's Financial and Management Reports used internally. The SFRs form the basis of both Financial and Management reports. There are approximately 100 SF Reports and approximately 8,200 SFR Lines. These are not used for the production of the RFS.

• Group Accounting (GFR Lines and Reports) Layer

SFR Lines aggregate to Group Financial Reporting (GFR) Lines. One or many SFR Lines are aggregated to a GFR line. GFR lines form the basis of BT's Group Financial Reports, from which, BT's external Financial Reports are produced.

Self-accounting Units (SAUs) not using the BT Group General Ledger (GL) system provide summarised details of their financial accounts on Group Financial Return (GFRet), with line items from the GFRet mapped to GL codes for use in the AS system.

2.2.2 Regulatory Reporting Route (AS system)

• Base & Apportionment (F8 codes) Layer

One or many general ledger codes, which are similar in nature, are grouped into 'F8 codes'. The costs, revenues, assets and liabilities associated with an individual F8 code (for a given Organisational Unit Code - see OUC description below) will be attributed to Products, Plant Groups (PGs) and/or Activity Groups (AGs) using a base methodology appropriate to the OUC that records the entry.

The Regulatory Reporting system CostPerform receives general ledger feeds and attributes costs, revenues, assets and liabilities to the regulated Markets and Services.

F8-OUC combinations are the lowest level at which discrete costs pools are defined for the purpose of the AS System.

Regulatory Reporting (AS Sectors and SMP Sectors) Layer

One or many F8 codes are grouped into similar functional categories called AS sectors to make regulatory reporting more manageable. Although sectors contain functionally similar categories of cost, an individual sector is likely to use multiple attribution base methodologies. AS sectors are grouped into two broad categories: Income Statement; and Balance Sheet.

All AS sectors point to SMP reporting sectors, to further aggregate regulatory reporting information. One or many AS sectors can map to an SMP sector. These SMP reporting sectors are presented in the RFS.

Organisational Unit Codes (OUCs) and Sectors

OUCs provide a horizontal, organisational cut of the financial data in the vertical 'GL-F8-sector' pyramid. Costs, revenues, assets and liabilities are recorded by OUC, at the class of work (CoW)/general ledger account level. CoWs specify a type of activity or asset type on which engineers are engaged at an F8 code level.

The codes for OUCs follow a hierarchical structure, with the first level of the OUC code defining the highest level of the organisation unit (i.e. Corporate or Customer-Facing Unit) and the subsequent letters of the OUC code representing the more detailed sub-divisions within the top-level organisation unit. For example, OUC code B represents Openreach, and code BK represents a subsidiary organisational unit within Openreach.

A Sector is represented by a series of F8 codes, with OUCs showing the financial values of their revenue, costs, assets and liabilities against the different F8 codes. Each sector can be represented by a matrix of the F8-OUC combinations. The AS system looks at each F8-OUC combination to identify an appropriate base attribution methodology to allocate the costs, revenues, assets and liabilities.

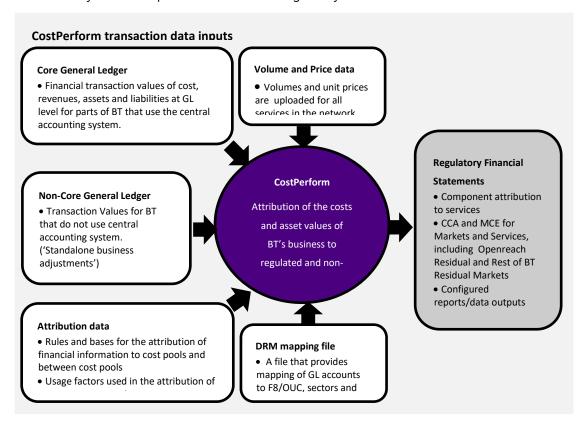
2.2.3 Attribution of financial information to Markets and Services

The AMD explains how the costs, revenues, assets and liabilities of the BT Group business are attributed to the products of the defined regulatory Markets and Services. The AMD sets out the component F8/OUC codes and the attribution methodologies that are applied to each F8/OUC code, for each sector, to flow them through to products (and/or intermediate cost pools). Several F8-OUC combinations may share the same base, if they have similar cost behaviour. Our attribution methodologies are described in detail in the Methodology Dictionaries, in Part B of this document.

2.3 The AS System, CostPerform

2.3.1 System overview

We use a system called CostPerform to perform the fully allocated cost attribution for the Regulatory Financial Statements. CostPerform takes financial information from our general ledgers and uses a series of predetermined rules and bases to attribute costs, assets and revenues to regulated and non-regulated Markets via a series of cost pools. The diagram below illustrates the types of transaction data that enters the CostPerform system and is processed to form the regulatory financial statements:



Financial Information from our Core General Ledger

We upload financial information relating to costs, revenues, assets and liabilities for the business units that use the general ledger in our central accounting system. This information is uploaded in the form of general ledger codes and organisational unit codes.

Non-core GL feed

We upload financial information relating to cost, revenues, asset and liabilities for the self-accounting business units from the Group Consolidation System. These business units are typically BT-owned subsidiaries and are included in CostPerform to reconcile the financial information used in preparing the RFS to that published in our statutory accounts, but are allocated to the Rest of BT Residual market.

We also upload central journals that relate to accounting adjustments that have been reflected in the statutory accounts but not processed within the Core ledger.

We upload information relating to our Current Cost Accounting revaluations including asset values and indices. This information is uploaded into CostPerform with the underlying data being sourced from our fixed asset register and a variety of our sources including indices published on the ONS website.

We also enter some other journals into CostPerform in order to account for specific regulatory adjustments, such as the accounting for Excess Construction Charges.

Volumes and Prices for our Network Business

We upload service volumes and prices for our Network Business. In the case of Openreach Markets the volumes are sourced directly from Openreach, but they are pre-processed in order to input them at the required level of granularity for regulatory reporting. In the case of the other Wholesale Markets we source the external volumes from BT Enterprise and the internal volumes are derived from the volume of downstream retail products, using several different sources.

The prices for all reported services are sourced directly or indirectly from the Openreach and BT Enterprise price lists, but in some cases these are aggregations of more than one price.

General Ledger Hierarchy

General Ledger (GL) accounts are the lowest level at which financial information is brought into CostPerform. A General Ledger Hierarchy file is also fed into CostPerform, which sets out a mapping of GL accounts to F8 codes and assigns a series of markers to provide additional information about the F8 code e.g. sectors, transaction types etc. This enables the system to track and report results against several views.

F8 code / OUC Hierarchy

This file designates an attribution rule to each F8 code and OUC combination.

Attribution Rules

Some of the attribution rules are processed or calculated by CostPerform, but other rules need uploading into the system. These rules are uploaded in the format of % allocations, e.g. Specialised Accommodation costs are apportioned according the floor space occupied and the rule table that is uploaded shows the percentage of floor space occupied by each plant group.

2.3.2 System processes and processing totals

The CostPerform system defines different categories of costs which are treated in a similar manner in the system. A particular category of costs will be attributed to other cost pools at each processing level within the system, resulting in a sequential flow of costs across different categories at each stage. The process of cost pools emptying as all the costs are attributed forwards is referred to as 'exhaustion'.

The diagram on page 15 illustrates the main processing stages of the CostPerform system for the RFS.

These levels cascade costs downwards (the attribution process) in a specific order (as shown in the above diagram), to the final level of products (note that costs are allocated to products but the main focus for regulatory reporting is at the Component and Service level as these are what we publish in the RFS for SMP Markets). The order of attribution is important because some attributions are made based on previously attributed costs. For example, some costs are attributed on the basis of pay costs.

Section 3 provides further introduction to the methodologies used at each CostPerform level, and explains where further detailed information for each stage is listed within the AMD.

General ledger Layer 101 - F8OUC F8 codes by OUC Layer 151 - 153 Rule Type 1 Rule Type 3 Rule Type 28 Rule types (RT) Activity Plant Layer 191 Groups Groups **Products** Reconciliation layer (RT1 and 3) (AGs) (PGs) Activity Layer 200 - 600 Activity Groups Groups (AGs) Plant Laver 701 Groups **Products Plant Groups** (PGs) Layer 801 **Products** Components Components Layer 870 Services **Products** Services

Main processing stages of the Cost Perform system for the RFS:

2.3.3 Controls

There are a number of controls in the AS system to ensure the accuracy and completeness of the results. The key controls include:

AS data vetting

All mapping of data from the CostPerform system, except the direct interfaces from the GL, takes place through the DRM (Oracle Data Relationship Manager). The Operations finance team manages version control data integrity. Data is exported from the DRM and processed using CFCT. To help ensure data integrity an updated DRM table cannot be edited unless a superseding script is loaded by an authorised user, to overwrite the previous data. Once data has been submitted to a CostPerform run it cannot be altered until a new run is initiated.

Specification of data sets for runs

A run of the system is given a unique name, through which data sets and reference data can be identified.

Completeness of processing

Reports are extracted from CostPerform at the end of each run to show the completeness of processing at each layer within the system.

3 Attribution methodologies overview

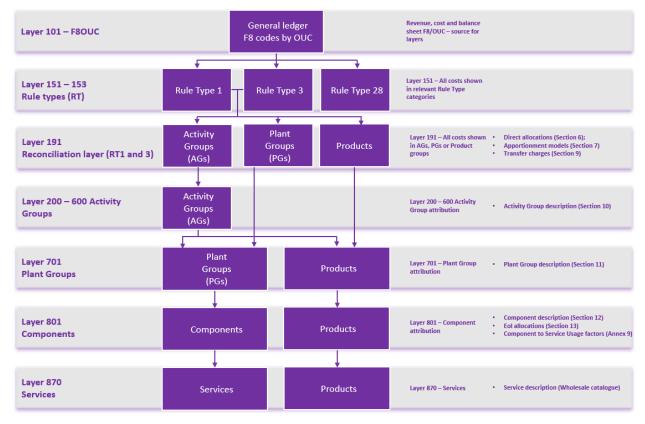
This section covers:

- Introduction to apportionment methodologies;
- Introduction to the sequencing of attributions at first processing layer, Layer 101;
- Introduction to attribution stages after Layer 101; and
- Explanation of attribution concepts.

3.1 Introduction

To allocate revenues, costs, assets and liabilities from the general ledger through to SMP and residual services, a range of allocation methodologies are used sequentially.

There are four key stages where apportionment methodologies are applied, known in the CostPerform system as Layers 101, 701, 801 and 870. These layers of apportionment, and the detailed methodologies within each layer, are explained in the following AMD sections:



3.2 Introduction to the sequencing of attributions at the first processing level, Layer 101

All costs, revenues, assets and liabilities are attributed at the first layer of CostPerform, Layer 101, using one of three types of attribution. These attribution rule types are sequential, with the later rules creating their attribution logic using the results of the earlier attribution stages.

Rule type 3 is held outside of CostPerform in apportionment models.

For all other methodologies, the calculation logic is held within CostPerform: the first direct apportionment rules attribute specified cost types to pre-determined destinations; the latter transfer charge rule uses data from earlier stages to match internal transfers between our organisation units.

Order	Name	CostPerform Rule	Calculation	Allocation Basis	AMD Section
1	Direct allocation	Rule Type 1	Fixed rules in CostPerform's DRM	Allocates 100% of costs to specific Activity Groups, Plant Groups, or to Rest of BT Residual	6
2	Apportionment model bases	Rule Type 3	Apportionment model	Allocates a share of costs using a calculated % attribution rule, using cost apportionment models	7
3	Transfer charges	Rule Type 28	System generated, following trades allocated during stages 1 and 2 above	Reallocation of costs between Core OUCs	9

Each organisational unit's costs, revenues, assets and liabilities are attributed using the above rules as follows:

Division	Name	Attribution Process			
B Openreach Mainly apportioned us		Mainly apportioned using:			
		Rule Type 1 direct allocations			
		Rule Type 3 apportionment models			
С	BT Group	Mainly apportioned using:			
	Headquarters	Rule Type 1 direct allocations			
		Rule Type 3 apportionment models			
E, Z	Corporate	Division E includes Share Based Payment adjustments which are attributed			
	Adjustments	using Rule Type 1.			
		Adjustments to Z OUC's are predominantly attributed using Rule Type 1			
		direct allocations to Rest of BT Residual, however adjustments specifically			
	E 111.1	related to a regulated service follow Rule Type 1 to other destinations.			
F	Facilities	Mainly apportioned using:			
		Rule Type 1 direct allocations Puls Type 2 approximation and type distance to the pulse Type 2 approximation and type distance to the pulse Type 2 approximation and type distance to the pulse Type 2 approximation and type distance to the pulse Type 2 approximation and type 2 approximation and type 3 approximation			
		Rule Type 3 apportionment models			
H,K,N, P	Enterprise	Apportioned using:			
Rule Ty		Rule Type 1 direct allocations Rule Type 3 appartianment models			
		Rule Type 3 apportionment models All the total control of PT Parish all and the production of PT			
J, MB	BT Global Services	Attributed using Rule Type 1 direct allocations to Rest of BT Residual.			
S	BT Consumer	Attributed to Rest of BT Residual, predominantly using Rule Type 1 direct			
Т	BT	Allocations.			
•		Mainly apportioned using:			
		Rule Type 1 direct allocations Rule Type 3 apportionment models			
		Rule Type 3 apportionment models Prodominantly apportioned using Pule Type 3 apportionment models			
	Security Predominantly apportioned using Rule Type 3 apportionment m				
Rule Type 1		Apportioned using:			
		Rule Type 1 direct allocations Rule Type 3 apportionment models			
V	Curring	Rule Type 3 apportionment models Production and the conception and union Dula Type 3 appointing and the conception and th			
		Predominantly apportioned using Rule Type 3 apportionment models.			
	Procurement				

Rule Type 1 – Direct Allocations

Allocates specific F8/OUC combinations to a specific cost pool, e.g. Openreach (OUC: B) engineering pay costs for the activity of repairing PABXs (Class of Work AMBSB, F8 code: 102911) are allocated to PG981R (Time Related Charges) but pay costs for BT Technology engineers on the same activity are attributed to Rest of BT Residual.

Rule Type 3 – Apportionments Models

- 1.1 Apportions F8/OUC combinations to more than one cost pool using a specific attribution rule, e.g. the depreciation on BT Technology's AXE10 switch assets (F8 code: 455164 / OUC: T) are apportioned to several plant groups using the rule PDTLYX (see Section 6 for more information on PDTLYX). Apportionment models for each Rule Type 3 base, such as the model for PDTLYX, are held outside of CostPerform and are used to calculate the % share of costs by each relevant destination cost pool.
- 1.2 OUC-driven attributions are applied to specific OUCs using apportionment models that are held outside of CostPerform.

Rule Type 28 - Transfer charges

Transfer charges relate to the attribution of costs between different business units. Each transaction has the receipt for one CFU and a payment for another CFU. Rule Type 28 is a system generated base that attributes the transfer charges receipts in proportion to how the transfer charge payments have been apportioned, in this way the two net each other off. Transfer charges are explained more fully in Section 8 Transfer Charges (Rule Type 28).

3.3 Introduction to attribution stages after Layer 101

3.3.1 Activity Groups to Plant Group or Rest of BT Residual (Processing layer L121-601 and 701)

The source cost pools at layer 701 attribute the combinations of costs and assets which relate to activities such as training, development, facilities management and general corporate costs.

We have summarised this layer to show how Activity Groups attribute to Plant Groups. In practice there are sub-stages to this attribution where Activity Groups are attributed in a specific order to accommodate that some of their attributions are to other Activity Groups.

The order of this attribution is as follows (note that more information on Activity Groups is available in Section 9 Activity Groups):

- AG101 to AG102, AG119, AG170 to 173, AG401, AG402, AG406, AG407, AG410, AG415 (Layer L201a to L201v); then
- 2. AG113 and AG115 to AG118 (Layer 301); then

Activity Groups are attributed to Plant Groups and Rest of BT Residual using either defined system rules or methodologies which are appropriate to the types of costs they attribute. Ultimately, Activity Groups are attributed to either Rest of BT Residual products or Plant Groups; however some of the attributions at this processing layer are first from one Activity Group to another.

Details of each Activity Group and their onward apportionment rules can be found in Section 9 Activity Groups.

3.3.2 Plant Groups to Component (Processing Layer 801)

The source cost pools at layer 801 attribute the combinations of costs and assets which relate to plant (network) overheads, such as accommodation costs for network buildings and costs of providing power to exchanges and transmission assets.

Plant Groups are attributed to components using methodologies which are appropriate to the types of costs they attribute. Plant Groups can be attributed to Components on a one-to-one, one-to-many basis, or many-to-many bases. Consequently, a Plant Group may contribute costs to many different Components and a Component may receive costs from many Plant Groups.

Details of Plant Groups and their onward apportionment rules can be found in Section 10 Plant Groups.

3.3.3 Component to Service (Processing Layer 870)

The source cost pools at layer 870 attribute the combinations of all costs and assets which use BT's Network (i.e. those which are not already attributed to Rest of BT Residual Markets) to the relevant services.

Components are attributed to services, which represent a bundle of Component elements, using volumes and usage factor data. These services are then charged to users of the network, which can be internal (e.g. BT Consumer) or external (Other Communication Providers). es.

Details of how this works can be found in Section 11 Components.

3.4 Explanations of Attribution Concepts

- Cost drivers or 'bases': These are the underlying bases on which costs are incurred, e.g.
 accommodation costs are incurred based on floor space requirements. The cost driver or 'base
 method' is therefore floor-space.
- Costs: Costs are taken from the accounting records. The processes applied to the costs, which vary according to the nature of the costs and the way in which they are recorded, are:
 - o Attribution: This is a general term encompassing both allocation and apportionment.
 - Allocation: Certain costs can be directly associated with activities or type of equipment and do not require apportionment. Our engineers book their time and the materials they have used to Classes of Work (CoW). Many of these CoWs can be mapped directly to specific plant groups or support functions.
 - Apportionment: Other costs cannot be directly associated with specific activities and plant groups, and require apportionment. For network costs this process makes extensive use of engineering data reflecting not only each plant group type (e.g. local lines, transmission equipment) but also the type of technology (e.g. metal and fibre local lines, PDH and SDH transmission equipment).

Certain other costs can be identified within the accounting records as relating to a discrete function such as repair centre costs, computing or billing. A review of this function, often by the means of work/application analysis or a survey of staff activity, establishes the cost driver and is used to apportion its costs between activities and, if applicable, plant groups.

Capital employed: We define capital employed as: mean total assets less current liabilities, excluding
corporate taxes, dividends payable, and provisions other than those for deferred taxation. The mean
is arithmetic average of the start and end values for the period. The apportionment of capital
employed follows a similar approach to that for operating costs. For some items, such as trade
receivables, relevant revenue is the appropriate driver, rather than costs.

Non-current Assets can be divided into:

- Assets that can be directly allocated to plant groups, e.g. dropwires.
- Assets relating to plant groups which are apportioned based on cost drivers, e.g. SDH transmission
 equipment is apportioned to plant groups based on a count of equipment and their replacement cost.
- Assets of a general nature which are apportioned to retail products, plant groups and support functions using an appropriate cost driver, e.g. capitalised systems development costs are apportioned using an analysis of specific projects recorded on our fixed asset register.

On 28 March 2018 Ofcom published its findings on BT's weighted average cost of capital (WACC) in annex 20 of its Wholesale Local Access Market Review, which stated its estimate for disaggregated WACC for BT that is used in charge control calculation as:

	Openreach copper access	Other UK telecoms (GEA Fibre)	
Pre-tax nominal WACC	8.1%	9.3%	

The rates for BT Group and Rest of BT have since been replaced by those included within the 2019 PIMR and BCMR statement published on 28 June 2019 which sets their decision on BT's pre-tax nominal WACC for BT Group and disaggregated lines of business:

	BT Group	Openreach	Other UK Telecoms	Rest of BT
Pre-tax nominal WACC	8.3%	7.1%	8.0%	11.0%

The WACC of the relevant market is applied to the MCE of a given service to represent an acceptable rate of return generated on providing that service. The WACC is applied to the MCE of a given service to represent an acceptable rate of return generated on providing that service.

Net current assets / (liabilities) are reported either using moving average methodologies (e.g. Liquid Funds and Notional Debtors) where the value for cash or debtor days is calculated based on a five year moving average, or by using specific attribution methods (e.g. many liabilities are apportioned using OUC-driven allocations).

Provisions are either allocated specifically to activities and components or are apportioned using a base appropriate to the charge. For example, provisions relating to the cost of vacating leased buildings are apportioned using the accommodation cost base.

- Non-financial data: Where costs cannot be directly allocated to activities and plant groups, or when
 plant groups do not map exactly on to components, an apportionment is required. Depending on the
 cost involved, the appropriate basis of apportionment may be of a non-financial nature. In these
 instances, the relevant data may be extracted from non-financial data sources, such as operational
 systems giving circuit numbers, or may be collected through activity analysis.
 - For example, the apportionment of the pay costs that relate to a discrete function to activities and plant groups is dependent upon a survey of the tasks of the staff whose pay is being apportioned. Such surveys will typically involve analysis of the tasks staff undertake and the percentage of time spent on those tasks. These tasks will then be linked to activities and plant groups, either directly or through further analysis.
 - Surveys are frequently commissioned for the purpose of cost attribution and are carried out at a layer appropriate to the activities and plant groups in question and updated at least annually.
- Gross Adjusted Costs: Costs are presented on a 'gross adjusted basis', i.e. this reflects all external costs together with all transfer charges between divisions. There are two main types of transfer charges:
 - Cost transfer charges between divisions/organisational units, which go through the GLs.
 Such charges are eliminated in the consolidated results, and usually in the AS framework, where they are replaced by the underlying cost.
 - Transfer charges between Markets e.g. from the Wholesale Significant Market Power (SMP)
 Markets to the BT Rest of BT Residual. Such charges are calculated and presented only within the AS framework (rather than through the GLs).

Transfer charges are discussed in further detail in Section 8 (Transfer Charges).

4 Accounting policies

This section explains the basis of the preparation of the RFS and highlights any differences between current costs and historical cost policy as set out in BT's Annual Report.

4.1 Basis of preparation of the RFS

The RFS are prepared under the Financial Capital Maintenance Convention, in accordance with the principles set out in the handbook "Accounting for the effects of changing prices", published in 1986 by the Accounting Standards Committee, except where directed by Ofcom to apply alternative valuation methodologies. Under this convention, current cost profit is normally arrived at by adjusting the historical cost profit to take account of changes in asset values and of the erosion in the purchasing power of shareholders' equity during the year due to general inflation, however this adjustment is not included in regulatory reporting. Asset values are adjusted to reflect their value to the business, usually equivalent to their net current replacement cost. Changes in asset values are referred to as unrealised holding gains or losses.

The Accounting Methodology Documents are made up of the following (listed in order of priority):

- i. The Regulatory Accounting Principles (published separately to this document by Ofcom in Direction 1: 'Direction specifying the Regulatory Accounting Principles' as notified in the BT Regulatory Financial Reporting Statements dated March 2019 and July 2019:
 - Completeness;
 - Accuracy;
 - Objectivity;
 - Consistency with regulatory decisions;
 - Causality;
 - Compliance with the statutory accounting standards;
 - Consistency of the Regulatory Financial Statements as a whole and from one period to another.
- ii. The Attribution Methods (covered in Sections 6 to 11 of this document)
- iii. The Transfer Charge System Methodology (Section 8 of this document)
- iv. The Accounting Policies (this section)
- v. The Long Run Incremental Costs Methodology (published as a separate annex to this document).

The RFS are required to give primacy to Regulatory Decisions, which are explained in the Attribution Methods.

The RFS are reconciled to BT's Annual Report, which consolidates, on a historical cost basis, the financial statements of the company and all its subsidiary undertakings. Where the financial statements of subsidiary undertakings, associates and joint ventures do not conform to the Group's accounting policies, appropriate adjustments are made on consolidation in order to present the financial statements on a consistent basis. The principal subsidiary undertakings' financial years are all in alignment to those of the company.

The preparation of financial statements in conformity with IFRS requires the use of accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. We continually evaluate our estimates, assumptions and judgements based on available information and experience. As the use of estimates is inherent in financial reporting, actual results could differ from these estimates. The areas involving a higher degree of judgement or complexity include accounting for long term customer contracts, pension obligations, useful lives for property, plant and equipment and software, provisions and contingent liabilities, current and deferred income tax, goodwill and provision for doubtful debts.

The Group's accounting policies are detailed on pages 129 to 133 of BT's Annual Report for the year ended 31 March 2020 which is available from our website: www.BTplc.com, or from our registered office:

BT Group plc, BT Centre, 81 Newgate Street, London, EC1A 7AJ

4.2 Principles of Valuation of Non-Current Assets

Assets are stated in the balance sheet at their value to the business, usually equivalent to their Net Current Replacement Cost (NRC). This is generally derived from the asset's Gross Replacement Cost (GRC) and is the current purchase price of an identical new asset or the cost of a modern equivalent asset (MEA) with the same service potential.

We employed different valuation methods in the RFS for different technology types. These are 'existing technology', 'modern equivalent asset' and 'low value/short life' valuations. The valuation types, along with the different ways in which we employ them, are explained in Section 5 Valuation Methodologies.

Under IFRS (as adopted by the EU), expenditure which meets the recognition principles of IAS 16 (International Accounting Standard 16) are capitalised. Ofcom's WLA Market Review statement, dated 28 March 2018, and Regulatory Financial Review, dated July 2019 directed a deviation from this standard for the recognition of installation and planning costs related to specific services. In 2019/20, these are GEA Customer Site installation, Tie Cables, GEA Cable Links, Abortive Visits, Co-mingling services and Excess Construction Charges (ECCs). This means that certain planning and installation costs are treated as operating expenditure in the RFS, in line with connection revenues received (as compared to capital expenditure in accordance to IFRS and BT's accounting policies), and the opening mean capital employed associated with these activities are also removed.

4.3 Property, Plant and Equipment and Software Intangible Assets

Property, plant and equipment are stated at current cost less depreciation (also at current cost).

In BT's Annual Report, property, plant and equipment and software intangible assets are included at historical cost, net of accumulated depreciation, government grants and any impairment charges. On disposal, any difference between the sale proceeds and the net book value at the date of disposal is recognised in the Income Statement as 'other operating income'.

Included within the cost for network infrastructure, equipment and internally developed software are direct and indirect labour costs, materials and directly attributable overheads. Depreciation is provided on property, plant and equipment on a straight-line basis from the time the asset is available for use, to write off the asset's cost over the estimated useful life, considering any expected residual value. Freehold land is not depreciated.

Right-of-use assets and corresponding liabilities are recognised in BT's Annual Report on a net present value basis reflecting future minimum lease payments. The right-of-use liability for the Telereal property lease is included in BT's asset base.

4.4 Current Cost of Property, Plant and Equipment and Software Intangible Assets

The gross current replacement cost of the major categories of property, plant and equipment and software intangible assets has been assessed on the following basis:

(a) Land and buildings

Property assets (general purpose buildings, specialised buildings, general purpose land and specialised land), are valued at historical cost. Specialised accommodation assets are valued using the indexed historic methodology.

(b) Access-Copper

Copper cable and dropwires are valued using the indexed historic methodology and the Office of National Statistics (ONS) published Retail Price Index (RPI).

(c) Access-Fibre

Access fibre cables are valued using the historic cost accounting methodology.

(d) Access - Backhaul Fibre

Backhaul fibre cables are valued using the indexed historic methodology and the ONS published CPI.

(e) Duct

Duct is either valued using the indexed historic methodology and the ONS published RPI or, for duct used by access cables, a prescribed Regulatory Asset Valuation ("RAV") methodology which Ofcom have directed us to use.

(f) Switch

System X local exchanges are valued using an extrapolation of the absolute valuation as at 31 March 2009. AXE10 local exchanges, UXD5 remote concentrators and main distribution frames are valued at historical cost.

(g) Transmission

Synchronous Digital Hierarchy (SDH) transmission equipment is valued using the indexed historic methodology. Backhaul and core fibre cables and equipment deployed as part of 21st Century Network are valued using the historic cost accounting. All other Transmission assets are valued at historical cost.

(h) Other Non-current Assets

Telecom power equipment is valued using the indexed historic methodology. All other assets, including computers, vehicles, internally developed and externally purchased software and other intangible assets are valued at historical cost.

4.5 Depreciation

Historical Cost Accounting (HCA) depreciation is provided on property, plant and equipment on a straight-line basis from the time the asset is available for use, to write off the asset's cost over the estimated useful life, taking into account any expected residual value. Freehold land is not depreciated.

The asset lives assigned to principal categories of assets are shown in our accounting policies, described in our statutory accounts Annual Report.

4.6 Government Grants

Government grant funding is received in relation to eligible capex spend that has been incurred and relates to grant funded assets received from a local or regional authority, or from a devolved government body.

5 CCA valuation methods

5.1 Introduction

In this section we describe the specific valuation methodologies used to value our Non-current Assets in the preparation of the RFS.

BT's fixed asset register categorises our assets into a range of sub-accounts known as classes of work (CoW). These CoW describe the type of asset in detail and are an appropriate level of granularity for us to make our valuation decisions. In the presentation of the RFS we group them into a smaller number of asset categories. Details of the CoW included under each asset category are provided in Annex 9.

Our fixed asset register also provides some additional detail which allows us to go down to a further level of detail (known as policy codes) and our financial systems allow us to disaggregate capital expenditure into pay, materials and contracted work. This granular detail is used in the valuation methods, where appropriate.

Basis of Preparation of the Regulatory Financial Statements

The RFS are prepared under the financial capital maintenance (FCM) convention using the principles set out in the Report to H. M. Treasury (1986) "Accounting for Economic Costs and Changing Prices" and the handbook "Accounting for the effects of changing prices", published in 1986 by the Accounting Standards Committee, except where we are directed by Ofcom to apply a different valuation methodology.

Under the FCM convention we include changes in asset values in our income statement as unrealised holding gains or losses. Normally a general inflation adjustment for the erosion in the purchasing power of shareholders' equity would also be applied, but this adjustment is not included in regulatory reporting.

Principles of Valuation of Non-current Assets

Assets are stated in the balance sheet at their value to the business, usually equivalent to their Net Replacement Cost (NRC). This is generally derived from the asset's Gross Replacement Cost (GRC) which is the current purchase price of an identical new asset or the cost of a modern equivalent asset (MEA) with the same service potential, except where we are directed by Ofcom to apply a different valuation methodology.

In line with the FCM concept, the effect of the asset revaluation on the income statement is to increase the historical cost profit by any holding gains arising in the year and to decrease it by unrealised losses. Additional depreciation charges resulting in the revaluation of assets are reported as supplementary depreciation. Other differences between for CCA and HCA transactions are reported as other CCA adjustments e.g. under CCA accounting the value of disposals and write-offs reflect their revalued NRC. All MCE numbers reported reflect the revalued NRCs. We use the same accounting policies in HCA and CCA, including the same useful economic asset lives. CCA and HCA charge the same amount to the P&L over the life of the asset (including supplementary depreciation as a result of CCA changes). We allocate Current Cost Accounting (CCA) adjustments to the income statement and balance sheet to Markets using the same principles and processes as we use for allocating the historical costs for the same assets.

The methods employed for valuing our assets are shown in the table below:

Valuation assumption	Valuation method	Example (CoW)
Existing technology	Indexation Extrapolated Absolute Regulatory Asset Valuation (RAV)	Copper Dropwires (NWB & NWR) System X exchange switches (LDX) Duct (LDD)
Modern Equivalent Asset (MEA) – see section 5.2.1	Historical cost	21CN Combi-cards (MSAN, MSANF and MSANH)
Low value, short residual life and/or minimal impact on regulated areas of BT	Historical cost	Vehicles (NVAC), SDH, MSAN, WDM21, ETHER, COR21, CORLU, MSAN

5.2 Choice of valuation method

The valuation methods used for the various asset categories are reviewed annually to ensure they are still appropriate and produce robust valuations in the light of changes in technology and levels of investment. For example, when new technology is being introduced the purchase price will represent its current cost, but in later periods indexation or an absolute valuation will be introduced as prices change and/or the technology of the assets purchased is no longer the modern technology.

(i) Existing technology

Where an asset is being revalued on a direct replacement basis, its replacement cost is usually assessed either by indexation, by absolute valuation or by extrapolated absolute valuation. The choice of method involves a judgement as to which method, given the data available, is likely to give a more accurate and robust valuation. Factors considered include the following:

Indexation: This is an appropriate method when there has been little technological change in the asset category and all the direct costs associated with bringing the asset into service would be incurred if it were to be replaced today. It also requires the production of an appropriate index. Net replacement cost is derived using indexation of the historical net book values.

The table below shows those assets presently valued on an indexed historic basis as detailed in Annex 7.

Asset Description	CoW
Copper Dropwires	NWB & NWR
Backhaul and Core Duct	LDD
Access Copper Cable	LDC
Construction, Local/Main Exchange-side Cable	LMC
Telecom Power Equipment	TPC
Specialised Accommodation Assets	ACPN
Backhaul/Core Fibre Cable	CJF

Extrapolated absolute valuation: where there have been no significant developments in technology or underlying asset base then a full absolute valuation exercise may not be justified. In these cases, we may choose to continue with the previous year's valuation and then extrapolate by adding capital expenditure at cost and applying an index that reflects known price movements.

The table below shows those assets presently valued using an extrapolated absolute valuation method.

Asset Description	CoW	Date asset last valued as Absolute Valuation	Section ref. for detailed methodology
System X Exchange Switches	LDX	2008/09	5.3.6

Regulatory Asset Valuation (RAV): In some situations, Ofcom have directed us to follow an alternative methodology to make the valuation consistent with that used in charge controls.

The table below shows those assets presently valued using Ofcom determined Regulatory Asset Valuations.

Asset Description	CoW	Section ref. for detailed methodology	
Duct used by copper cables	LDD	5.3.5	

5.2.1 New technology and its use as MEA

Emerging replacement technologies are treated as separate asset categories until it is clear that their costs are lower than those of an older technology and that they have become the modern equivalent. For example, fibre cable is being deployed in parts of the access network, but its cost is not yet low enough for it to be considered as the MEA for copper cable.

In considering the use of new technology as the MEA it is assumed that there are no changes to BT's network topology, i.e. the number of nodes and the links between them are valued in their existing configuration, not as a theoretical optimised network.

5.2.2 Unit costs

Unit costs applied to capacity for absolute valuations are based on outturn prices where these are considered representative of the costs that would be relevant if the assets were being replaced at a normal rate in the normal course of business. It is possible that the prices currently being paid are unrepresentative, for example

when ordering levels are particularly high or low, or at the end of a technology's life. In such cases an estimate is made of an appropriate current cost with reference to internal and external data.

5.2.3 Choice and application of indices for Indexation Method

We have prepared price indices for each of the CoWs valued under the indexation method. These indices are usually composite indices constructed from Office for National Statistics (ONS) indices, such as average earnings, and weighted by analysis of elements of BT expenditure e.g. BT labour, contract, or stores. Annex 7 lists the indices (including their sources).

The year-end valuation for each asset is built up from historical asset data, sourced from the Group's Fixed Asset Registers plus late registered assets from a late registration journal and WIP from the BT Group annual report. Indices at 31 March (current year) are used in the year-end valuations in conjunction with the indices at 30 September in the year of registration for the asset being valued, as illustrated below. Use of the mid-year indices reflects that the assets are purchased throughout the year; thus, the current year historical cost accounting (HCA) additions have six months' indexation applied to them to derive their CCA value.

Example for an asset being valued at 31 March 202x:

Year of Registration:	GBV additions in the year	GRC additions in the year
1990/91	A	A x Index @ 31/3/2x / Index @ 30/9/90
1991/92	B I	B x Index @ 31/3/2x / Index @ 30/9/91
	\downarrow	
2013/14	Z	Z x Index @ 31/3/2x / Index @ 30/9/12
		
TOTAL @ 31/3/2x	GBV = Sum of above	GRC = Sum of above

5.2.4 Depreciation

Depreciation is provided on non-current assets on a straight-line (for HCA) basis from the time they are available for use, to write off their costs over their estimated useful lives, considering any expected residual values. No depreciation is provided on freehold land. The lives assigned are the same under both the current cost and historical cost conventions.

CCA depreciation for those assets valued on a historic basis is calculated using an indexed NBV/GBV methodology.

For those assets valued on an absolute valuation basis, the CCA depreciation is derived using either NBV/GBV method or the Roll Forward method. The specific method used for each Class of Work is shown in Section 2.

5.2.5 Disposals, write-outs and write offs

These are derived from HCA figures and revalued using the most appropriate method for the asset being valued within the overall approach described in Annex 7.

5.3 Detailed Valuation Methodology

5.3.1 Introduction

This section provides details of the methodologies adopted for deriving the gross valuation and CCA depreciation.

The studies and data sources utilised in the preparation of the CCA Valuations referred to in this section are described in Annex 6.

A description of the Asset Movement Statement process for derivation of NRC including the underlying CCA movements is provided in Annex 7.

5.3.2 Land and Building

Property

The majority of property assets (general-purpose buildings, specialised buildings, general purpose land, specialised land and the majority of accommodation plant) are valued at historical cost. This is because only a small number of buildings are owned by BT and the CCA adjustments would be spread across many services, resulting in immaterial adjustments to individual services. Leased buildings under IFRS 16 are treated as right-of-use assets per the accounting standard and valued based on the historical present value at the point of adoption of IFRS 16.

Specialised Accommodation Assets

These assets are all associated with creating a suitable environment for housing network equipment (CoW ACPN). The largest element is for air ventilation and air chilling equipment but also included are fire, flood and gas detection equipment, electric light and power, kitchen equipment, and intruder detection.

We value these assets using the indexed historic principles, but in order to better reflect the different types of assets within this CoW we have used different indices for each type. These indices are shown in Annex 7.

5.3.3 Access - Copper

Access Copper Cable

This asset includes the overhead and underground copper cables that connect BT's exchanges to the distribution point.

The valuation is calculated using an indexed historic method. To calculate an absolute valuation for an asset of the size and complexity of the copper network requires a number of significant assumptions and estimates, which would lead to volatility in the RFS.

RPI has been selected as the most the appropriate index for this asset.

Dropwire

This asset includes the copper wire from BT's distribution point up to and including the main socket on an end-user's property. The assets are valued using an indexed historic method. RPI has been selected for this asset consistent with the valuation of Access Copper Cable.

Other Assets

ISDN2 network terminating equipment (CoW HHB, HHR & NTIS) and broadband ADSL technology (CoW ADSL) are valued at historical cost as these assets are of relatively low value.

5.3.4 **Fibre**

Access - Fibre Cable

This asset includes the fibre cable from BT exchange to the end user's premises. The assets are valued using a historic cost accounting method.

Access Backhaul / Core Fibre

This asset includes the backhaul cable from BT exchange into the core network. The assets are valued using an indexed historic method using CPI.

5.3.5 **Duct**

Standard Duct Valuation

The valuation of duct is calculated using an indexed historic method. To calculate an absolute valuation for an asset of the size and complexity of the duct network would require a number of significant assumptions and estimates leading to volatility in the RFS. RPI has been agreed with Ofcom as the most the appropriate index for this asset (including Capitalised Planning costs).

Regulatory Asset Valuation for duct used by access cables

Ofcom have directed us to value duct used by access cables using a prescribed RAV methodology. Duct built up to 31 Jul 1997 (pre-97) is at HCA but indexed using RPI from 1 Apr 2005. Duct built after 31 Jul 1997 (post 97) is at 'CCA' meaning that RPI is applied from the date of purchase/installation/go live/registration. The

valuation of duct built after Mar 31 2001 is calculated by applying the index each year from the date the asset was registered, as per the standard duct valuation.

The RAV adjustment (step 4) is allocated to PG100D (Duct RAV) used by Access Cables so that cost pool contains that original CCA valuation and the RAV adjustment to be equivalent to the RAV valuation for duct used by access cables.

Details of Regulatory Asset Valuation for Duct used by Access Cables – including key assumptions and any models used

Step 1. Value all duct using our standard indexed historic methodology. The assets and depreciation are attributed using our duct allocation methodologies (PDTDUCT) to the plant groups: PG100A (Duct RAV) and PG101D (Duct infrastructure).

Step 2. Input Fixed Asset Register detail. We download the detail of our duct asset registrations by year from the Fixed Asset Register.

Step 3. Input RPI index. We use the RPI index from the ONS website.

Step 4. Input proportion of duct used by access cables: We are only required to apply the RAV methodology to duct used by access cables and we take this proportion from our cost allocation bases: PDTDUCT.

Step 5. Calculate Regulatory Asset Valuation for all Duct. We then recalculate the value of duct as if the RAV methodology was applied to all Duct:

• Access duct capitalised prior to 1 August 1997 is valued based on the closing historical cost at the 2004/2005 financial year-end (i.e. 31 March 2005) and indexed by RPI from that date.

Step 6. Use the NBV/GBV methodology to calculate current cost depreciation.

Step 7. Calculate Regulatory Asset Valuation adjustment. We then apply the % of duct costs allocated to the cost pool used by Access Cables (step 4) to the difference of Duct valued using the RAV methodology (step 5) and Duct valued using our Standard Duct Valuation (Step 1). The resulting value is known as the RAV adjustment.

Step 8. The RAV adjustment is allocated to PG100D (Duct RAV) such that the original CCA valuation plus the RAV adjustment is equal to the RAV valuation.

5.3.6 Voice Switch

These assets are mostly old technology with low investment and nearing the end of their asset lives. They have declining net book values and consequently the value of any CCA adjustment on regulated Markets would be low. Therefore, with the exception of System X exchanges all these assets have been valued at historic cost.

5.3.7 System X Local Switches

The System X Switches (CoW LDX) are valued using the extrapolated absolute valuation methodology. We last updated the absolute valuation using 2008/09 information. Since then we have extrapolated the valuation using an indexed historic approach (see Annex 7).

Details of process used CoW LDX only - including key assumptions and any models used

The original Absolute Valuation:

- Step 1: Input Volumes: We sourced the number of lines and number of processors from EXPRES (Exchange Planning and Review System). The details of how the processors needed to be configured (e.g. the numbers of ports and signalling links) was sources from NRS (Network Records System).
- Step 2: Input Unit Prices & Initial Calculation: We used the LEMP2 (Local Exchange Modernisation Programme) contract to calculate the replacement costs of the concentrator, line card and processor. The LEMP2 model was a planning tool that contained the latest contracts and was able to take the input volumes and calculate and cost the optimal processor and concentrator configurations.
- Step 3: Calculations contract adjustment. We transferred the initial calculation into a BT CCA valuation model that we call the VALP model. By 2008/09 the contract prices in the LEMP2 contract were out of date but the succeeding NP2K contract did not represent the "normal course of business" as it was agreed to cater for only repair and small volumes of new provisions. Therefore, we applied the LDX index (see Annex 7).
- Step 4: Calculations provisioning costs. A previous study had identified the amount of provisioning costs required for the switch platform including a stock of spares, data build costs and contract supervision. These costs were updated each year in the VALP model to account for labour-rate increases.
- Step 5: Calculations non-capacity related investment. We added costs to the valuation to include investment in projects such as the modular controller and various software upgrades but only where the project could be demonstrated to provide additional functionality that added to the revenue earning capacity. This investment was initially added at historical costs. The value was indexed each year using the LDX index.
- Step 6: We have applied the LDX index to the 2008/09 absolute valuation (see annex 7).
- Step 7: The costs of planning the System X local exchanges are valued using the indexed historic methodology (see Annex 7).
- Step 8: Assets in the Course of Construction are valued at their historical cost.
- Step 9: Depreciation. We use the roll forward methodology to calculate current cost depreciation.

Other Local Switches

Other Local Switching Assets such as the AXE10s (CoW LYX) and Remote Concentrator Units (CoW UXD5) are all declining in value with a low level of current investment so any CCA adjustments would not be material and are therefore valued at historical cost.

Main Distribution Frames

BT continues to invest in adding capacity to main distribution frames (CoW LMDF) but they have a relatively low value so are valued at historical cost.

Operator Service Systems

These assets are declining in value with low level of current investment so therefore valued at historical cost.

Main Exchanges

This category includes the Main Exchange Switches (CoW MDX) and the Next Generation Switches (CoW NGN). These assets are declining in value with a low level of current investment and are therefore valued at historical cost.

Intelligent Network

This category includes the core Intelligent Network platforms (CoW INC) and the Interconnect platform (CoW SIGNI) which are used to support various Number Translation Services and network features. These assets are declining in value and are therefore valued at historic cost.

5.3.8 Transmission

Plesiochronous Digital Hierarchy (PDH) equipment

PDH equipment including Repeaters (CoW CRA, CRD, CRF, CRHQ) and Line Systems (CoW LTME) are all declining in value with a low level of current investment, so any CCA adjustments would not be material and the assets are therefore valued at historical cost.

Synchronous Digital Hierarchy (SDH) equipment

These assets are all declining in value with a low level of current investment, so any CCA adjustments would not be material and the assets are therefore valued at historical cost.

Backhaul and Core Cable (UK Transmission)

Core Copper cables (CoW CJC), Subsea Cables (CoW BHQ) and Main Core Cables (CoW MUC) are all declining in value with a low level of current investment so any CCA adjustments would not be material and the assets are therefore valued at historical cost.

The majority of investment in core and backhaul fibre cables is now booked against Backhaul Fibre (CoW CJF) and we use an Indexed historic methodology.

21st Century Network

The 21CN assets from 2018/19 are valued at historical cost due to the low value or immaterial CCA adjustment.

Access Equipment for Leased Lines

Equipment is sited at the end-user's premises and at BT exchanges for the purpose of providing Leased Line access lines (CoW: DTTM, DTTK, DTTS, DTSW and DTTSW). These assets have a short asset life and are either heavily depreciated or only modest price movements have been observed, so any CCA adjustments would not be material. The assets are therefore valued at historical cost.

Other Transmission Equipment

Core and Backhaul Radio Equipment (CoW TPWC) are declining in value with a low level of current investment so any CCA adjustments would not be material and the assets are therefore valued at historical cost.

5.3.9 Other

Telecom Power Equipment

Telecom Power Equipment (CoW TPC) includes standby generators, switchboards, rectifiers and power racks. We value these assets using the indexed historic methodology but in order to better reflect the different types of assets within this CoW we have used different indices for each type of equipment (see Annex 7).

Capitalised Systems Development and external purchased Software

These assets (CoW COMPS and COMPG) have a relatively short asset life and only modest price movements have been observed so they are therefore valued at historical cost.

Other non-current assets

Our remaining non-current assets have all been valued at historical cost because they:

- have a relatively low value;
- have a short asset life and only modest price movements have been observed;
- are virtually fully depreciated;
- have been recently acquired (so the current and historical costs are similar); or their
- attribution to regulated Markets is immaterial.

There will be little impact on the regulatory financial statements as a result of the differences between their historical and current replacement cost. These Assets include: Vehicles, Computers, Line Testing Equipment, Payphones and Engineering Stores.

PART B – DETAILED METHODOLOGY DICTIONARIES

6 Direct allocations

Before calculating apportionment-based models or system-generated bases, we assign revenues, costs, assets and liabilities that can be directly attributed to one distinct destination using their OUC and F8 code combination. These attributions are called Rule Type 1 allocations.

Many costs are attributed using Rule Type 1 based on the CoW and OUC combinations, or based on just the CoW. The following are examples of CoWs where 100% of their costs are attributed using direct apportionments:

CoW	Description	Destination
ADSL	Construction, Digital Subscriber-line (FAR)	PG153N, DSLAM Equipment
APARR	P&I Tele Answering & Recording M/cs, Residential	Rest of BT Residual
АРСТВ	Provision & Installation IT Products & Services-Business	 OUC B (Openreach) costs are attributed to either PG981R or PG253B Other OUC costs are attributed to Rest of BT Residual
APMSB	Apparatus - Provision (& installation) of a medium and small switch for	OUC B (Openreach) costs are attributed to either PG981R or PG253B Other OUC costs are attributed to Part of PT Paridual.
APOPR	customers. P&I, Other A.S.B. Products for Customers	 Other OUC costs are attributed to Rest of BT Residual OUC B (Openreach) costs are attributed to either PG981R or PG253B Other OUC costs are attributed to Rest of BT Residual
CPDSL	Circuit Provision - Asymmetric Digital Subscriber line (ADSL)	Predominantly OUC S (BT Consumer) costs that are attributed to Rest of BT Residual except for: OUCs H, K, T and V to PG145N Openreach OUCs to PG957P and PG958P Other remaining OUCs to P008
DTTS	Construction, Short-Haul Multimode of Private Ccts	PG457A, Optical Ethernet Electronics Capital
DTTSW	Construction of SHDS links for BT Enterprise Products	Construction of SHDS links for BT Wholesale Products PG467A EAD Electronics Capital
FTTX	FTTx Customer Premises Provision	PG954C, GEA Customer Site Installations
GFA	Grant Funded Assets	PG998A, Fibre Rollout Funding
HK	Repayment Work - Alterations (Statutory)	Openreach OUCs to PG980R except for BDUK to PG999A. Other OUCs to Rest of BT Residual
HSW	Repayment Work - Alterations (Major Works)	Openreach OUCs to PG980R except for BDUK to PG999A or PG197A. Other OUCs to Rest of BT Residual
J	P&I-Jumpering in Exchanges	PG142A, unless BDUK (to PG999A)
JLU	Jumpering in Exchanges Specific to LLU	PG142A, MDF Hardware Jumpering
LDC	Construction, Local Distribution Cable	PG118C, D-Side Copper Cable, unless BDUK (to PG999A)
LFME	Construction, Local Network Service Module Equipment	PG953C, GEA DSLAM and Cabinets, unless BDUK (to PG999A)
LFXE	Construction Local Line of Exchange Service Module	PG952C, GEA Electronics, unless BDUK (to PG999A)
PT	Routine Testing of Poles and Wire & Cable Clearance	PG118M, D-Side Copper Cable Maintenance
TPWA	Construction, Access Radio Systems	PG115C, Access Radio Equipment, unless BDUK (to PG999A)

A list of material direct allocations is published separately in Annex 9.

7 Apportionment models

7.1 Introduction to Apportionment Model bases at Layer 101

We have defined a set of 'Base Reference' methodologies to attribute F8/OUC costs to Activity Groups, Plant Groups, and Rest of BT Residual cost categories at the first layer of CostPerform's apportionment, Layer 101. These base reference methodologies (sub-divided by OUC in some instances) allocate 100% of the F8/OUC costs to a particular cost category and in other instances apportion the cost across multiple cost categories.

These base methodologies are those which attribute costs onwards based upon the functions of CoWs and how they support regulated services. This can involve combinations of OUCs and therefore a methodology is applied to cover this more general cost base than is associated with an OUC driven base.

The following is a dictionary of such bases, and their associated attribution methodologies.

7.2 Apportionment Model Dictionary – Rule Type 3 Bases

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
ACCOMM1	All	Accommodation
and ACCOMMBS		<u>Description</u>
		ACCOMM1 (P&L) and ACCOMMBS (Balance Sheet) includes the accommodation costs and MCE, for both BT owned and non-BT owned buildings. Accommodation costs including depreciation on leased property under IFRS 16, and MCE includes the right-of-use liability for the Telereal property lease as noted in the property section.
		<u>Methodology</u>
		The methodology apportions accommodation costs and assets between the four accommodation Activity Groups (AG170-AG173) based upon detailed building reports, to ensure that costs relevant to the following four categories are separated:
		 BT owned, Specialised Buildings; Non-BT owned, Specialised Buildings; BT owned, Office Buildings; Non-BT owned, Office Buildings.
		<u>Data Source/s</u>
		Building space by OUC data from Horizon.
СОМРЕ	Т	BT's Own Use Personal Computers
		<u>Description</u>
		COMPE (BT Own Use Personal Computers) includes the processor, display monitor, keyboard, internal fixed disk storage and the operating system software purchased as an integral part of the PC.
		<u>Methodology</u>
		The methodology apportions costs of BT own use personal computers to CFUs/CUs based on the number of personal computers by CFU/CU.
		<u>Data Source/s</u>
		Bridge and Ecensus.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
CUMNORM	W	BT's Cumulo Rates liabilities and Cumulo Rates rebate
		<u>Description</u>
		BT's Cumulo rates liability covers what we pay in non-domestic rates on our rateable network assets in the UK. Non domestic rates are effectively a form of property tax.
		The rateable assets within BT's Cumulo assessment include exchange buildings, telegraph poles, duct, manholes, cabinets, payphones, copper and fibre. Under rating principles these are assessed together, hence the term "Cumulo". Other parts of BT's property estate - e.g. offices and workshops - are assessed separately and do not form part of BT's Cumulo assessment.
		Cumulo rebates are attributed in exactly the same way as Cumulo rates liabilities.
		The CUMNORM base apportions the costs relating to BT Cumulo liabilities and BT Cumulo rebates.
		<u>Methodology</u>
		We attribute Cumulo costs between GEA and Non-GEA in proportion to their relative share of our Cumulo Rateable Value. The GEA share of Cumulo costs is calculated as the GEA Services' Rateable Value, which is a value per GEA line as determined by Ofcom, divided by the total Cumulo Rateable Value. The Non-GEA share of Cumulo costs is calculated as 1 minus the GEA Services' share of Cumulo costs.
		We apportion the costs to the following plant groups:
		PG941A (Cumulo Rates NGA);
		PG942A (Cumulo Rates Non NGA BTW); and
		PG943A (Cumulo Rates Non NGA OR)
		<u>Data Source/s</u>
		Cumulo rate invoices.
ELECT1	All	Electricity Costs
		<u>Description</u>
		This base apportions BT Technology Electricity costs to the following categories.
		Office Buildings
		Specialised Buildings
		• Data Centres
		•LLU
		•NGA/FTTC
		•BT Cables
		BT Sports Production Hub
		Third party
		Motor Transport Workshops
		The costs are apportioned to Activity Groups, Plant Groups and Rest of BT Residual.

Base Ref OUC Descriptions (For all descriptions below, see Appendix A for Key Destinations)

<u>Methodology</u>

A model of the power consumption across the BT Technology network is built based on equipment volume and power consumption, based on a unit rate. The unit rate is an average annual rate and is supplied by the Technology Energy Unit.

Volume data of the BT Technology network equipment is obtained from certain key data sources. Power consumption data for the various equipment types is obtained from a number of sources including technical specifications and measured consumption. See below for further detail on some key assumptions that are made regarding power consumption of different equipment types.

From this information the total power consumption of the BT Technology network by equipment type is determined. A relevant equipment allocation is applied for each different part of the BT Technology network.

This base is apportioned to various AGs and PGs, the most significant apportionments are to PG120B (LLU), PG127A (Analogue Linecards) and PG192A (FTTC Copper Tie Cables).

Power Assumptions

• Switch Equipment – the volume of concentrator lines at each exchange gives the total capacity of System X and AXE10 equipment. To calculate the power consumption the following lookup tables are used.

Туре	Number of units	Power per unit (w)	Total power (Mw)
Concentrator lines working	16,617,675	0.93	15.45
Concentrator lines spare/stopped	2,220,945	0.87	1.93
Concentrator lines ceased	13,042,841	0.64	8.35
ISDN 2 channels new type	2,172,341	0.625	1.36
Old ISDN 2 channels	612,711	1.09375	0.67
ISDN 30	94,619	8	0.76
DLEs System X	425	19,000	8.08
DLEs AXE10	211	13,000	2.74
DMSU/DJSU/WAT	17	23,000	0.39
NGS	73	6,800	0.50
Featurenet			2.30
VMP			0.00
IN			0.10
Messaging			0.10
SPRs			0.03
RIDE			0.06
CN-IPC			0.04
EMCD			0.00

- Transmission (PDH & SDH) Equipment The power consumption will be calculated using the volumes of each type of transmission equipment multiplied by the theoretical power consumption of each type, based on manufacture information.
- 21CN Equipment The power consumption is calculated by using the number of 21CN line cards multiplied by the theoretical power consumption from Technology Energy Model.
- DPCN the table below shows the power assumptions that are used in the model for each type of DPCN equipment.

Base Ref OUC Descriptions (For all descriptions below, see Appendix A for Key Destinations)

DPCN Equipment	Power (Kw)
EDMs	0.16
ENA/ET shelves	0.11
128 ACE	2.00
512 ACE	4.00
128 EACE	1.50
512 EACE	3.00
ECEFs	4.00
MD202	0.60

- ADSL Equipment Power consumption is calculated using the volume of actual DSLAM racks with different power rating applied based on DSLAM mux type.
- LLU Power The model uses actual metered power consumption.
- Access Radio the table below shows the power assumptions that are used in the model for each type of Radio link.

Radio Type	Power per link (w)
Core Radio – STM1	160
<2M	60
4x2/8M	60
16x2/8M	75
140/155M	75
Ethernet	60

• CWSS/DWSS – the table below shows the power assumptions that are used in the model for CWSS/DWSS cards and shelves.

CWSS		
Туре	Power (Kw)	
LTE Cards	0.009	
Shelves	0.007	

DWSS		
Туре	Power (Kw)	
FTEL LTE Cards	0.006	
ATEL LTE Cards	0.005	
FTEL Shelves	0.011	
ATEL Shelves	0.002	

• IP – Power consumption based on volumes and average power per cabinet.

	No. of Cabinets	Power consumption per cabinet (w)*	Total Power (w)
MPLS IP VPN	1,489	1,000	1,489,000
VoIP	1,076	1,000	1,076,000
Colossus	201	1,000	201,000
BTNet and Dial IP	59	1,000	59,000
BBIP	253	1,000	253,000
IBH	0	1,000	-
IP Peering	33	1,000	33,000
	Т	otal Power (w)	3,111,000

• NGA/FTTC - This is based on estimated NGA power consumption (kWh) supplied by the Technology Energy Unit. This is multiplied by an average unit rate (£/kWh) to calculate the total NGA power costs.

Data Source/s

Uses Period 12 equipment volumes (or most recent volumes available). The key systems used to provide the volumes for calculation of this base are listed below:

- EXPRES Volumes for switch equipment.
- INS Volumes for PDH transmission equipment.
- PACS Volumes for SDH transmission equipment and 21CN equipment.
- Oracle Business Intelligence (OBI) Reports Volumes for DPCN equipment (EDM and ENA).

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		 NISM - Volumes for ADSL (DSLAMS). Peacemaker – Radio infrastructure. AIM – Alcatel Inventory Module. LLUMs – Local Loop Unbundling Management System. IP volumes.
EMPLOYEEB	ALL	Employee Broadband
В		<u>Description</u>
		This base apportions the costs associated with the take-up of Employee Broadband. Employee Broadband is an offer open to BT Employees where they have the option to have a broadband line.
		<u>Methodology</u>
		Employee Broadband take-up is split into OUCs and then into relevant Customer-Facing Units (CFUs) and Corporate Units (CUs). The underlying costs are then apportioned into AGs and products, predominantly AG401 (Openreach pay costs), AG402 (Technology pay costs) and P008 (Rest of BT Residual).
		<u>Data Source</u>
		Employee Broadband take-up volumes.
INSURE	All	Insurance Premiums
		<u>Description</u>
		This base apportions insurance premium costs that are associated to specific insurance types, for example, general liability and health insurance.
		<u>Methodology</u>
		This base is apportioned to various AGs according to each insurance premium.
		<u>Data Source/s</u>
		BT Group insurance policies.
LICENCEFEE	ALL	Ofcom Licence fee
		<u>Description</u>
		This base apportions the cost of our telecommunications licence fee, known as Ofcom Licence Fee. This is effectively a licence to operate and trade within the UK.
		<u>Methodology</u>
		The cost of Ofcom's licence fee is split to all (SMP and non-SMP) services based on Relevant Revenue. The Relevant Revenue definition was directed by Ofcom. The cost attribution methodology specifies that the Licence Fee must be attributed to every service based on the proportion of relevant turnover associated with that service in the financial year.
		<u>Data Source/s</u>
		 Relevant Revenue submission to Ofcom, as used in the process of calculating annual fee Revenue by service for total Wholesale Markets and Rest of BT Residual, as shown in RFS.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
PDTLFSC_B1	В	Local Line OF Spine Cable- FTTC
		<u>Description</u>
		This base contains costs and MCE relating to the asset side of BDUK for LFSC that is FTTC. The base apportions costs between apportions BDUK PG999A (FTTC Funded Fibre Rollout Spend) and PG200P (poles capital expenditure).
		<u>Methodology</u>
		The apportionment is based on calculating the total GBV for this base, specifically that which relates to FTTC. The GBV relating to poles within this base is then identified from data provided by Openreach, this proportion is carved out and sent to PG200P (poles capital expenditure), with the remaining amount going to PG999A (FTTC Funded Fibre Rollout Spend).
		<u>Data sources</u>
		FAR
PDTLFSC_B6	В	Local Line OF Spine Cable - FTTP
		Description
		This base contains costs and MCE relating to the asset side of BDUK for LFSC that is FTTP. The base apportions costs between apportions BDUK PG990A (FTTP Funded Fibre Rollout Spend) and PG200P (poles capital expenditure).
		Methodology
		The apportionment is based on calculating the total GBV for this base, specifically that which relates to FTTC. The GBV relating to poles within this base is then identified from data provided by Openreach, this proportion is carved out and sent to PG200P (poles capital expenditure), with the remaining amount going to PG990A (FTTP Funded Fibre Rollout Spend).
		Data sources
		FAR
PDTLFDC_B1	В	Local Line Optical Fibre Distribution Cable – FTTC
		<u>Description</u>
		This base contains costs and MCE relating to the asset side of BDUK for LFDC that is FTTC. The base apportions costs between apportions BDUK PG999A (FTTC Funded Fibre Rollout Spend) and PG200P (poles capital expenditure).
		<u>Methodology</u>
		The apportionment is based on calculating the total GBV for this base, specifically that which relates to FTTC. The GBV relating to poles within this base is then identified from data provided by Openreach, this proportion is carved out and sent to PG200P (poles capital expenditure), with the remaining amount going to PG999A (FTTC Funded Fibre Rollout Spend).
		<u>Data sources</u>
		FAR
PDTLFDC_B6	В	Local Line Optical Fibre Distribution Cable – FTTP
		<u>Description</u>
		This base contains costs and MCE relating to the asset side of BDUK for LFDC that is FTTP. The base apportions costs between apportions BDUK PG990A (FTTP Funded Fibre Rollout Spend) and PG200P (poles capital expenditure).

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		<u>Methodology</u>
		The apportionment is based on calculating the total GBV for this base, specifically that which relates to FTTP. The GBV relating to poles within this base is then identified from data provided by Openreach, this proportion is carved out and sent to PG200P (poles capital expenditure), with the remaining amount going to PG990A (FTTP Funded Fibre Rollout Spend).
		<u>Data sources</u>
		FAR
ORCOPOOI	ALL B OUCs	Sale of scrap
	Oucs	<u>Description – Sale of Scrap</u>
		This base apportions Other Operating Income received by Openreach from the sale of scrap copper.
		<u>Methodology</u>
		Actual cable recovery data provided by Openreach is used to allocate income to PG986R (Openreach Other Activities).
		The remainder is allocated between PG118C (D-Side Copper Cable) and PG980R (Repayment Works) based on the amount of capital expenditure on D-side copper cable that is proper to Repayment Works.
		<u>Data Sources</u>
		Cable recovery data from Openreach, Capex data from the Internal Projects Ledger.
PDTGFA	All	Grant funded assets
		<u>Description</u>
		This base contains funding MCE relating to the CoW GFA and apportions it to PG998a (Fibre funding rollout), PG200p (Poles capital expenditure) and PG101d (duct infrastructure).
		<u>Methodology</u>
		The apportionment is based upon calculating the GBV amount of the CoW relating to BDUK. The proportion of duct and pole is calculated from this by obtaining the pole proportion of LFDC and LFSC, provided by Openreach, and duct GBV from the fixed asset register. The proportions are then used to remove out the pole and duct proportions and send the MCE to their respective bases. The remainder is then exhausted to PG998a (Fibre funding rollout).
		<u>Data Sources</u>
		FAR
PDTEPD	ALL	Expedites
		<u>Description</u>
		This base apportions the derived Expedite Provision Costs from NWB and NWR classes of work to Plant Groups (PGs). The recipients of the costs are:
		 PG149A Analogue Line Final Drop (for costs not associated with Abortive Visits or Expedites within CoWs NWB and NWR) PG155B Expedite Provision Costs PG200P (Poles Capital Expenditure)

Base Ref ouc Descriptions (For all descriptions below, see Appendix A for Key Destinations) **Methodology** GRC for NWR and NWB is obtained from the fixed asset register. The GRC number of poles within NWR and NWB is also obtained which is sourced from Openreach. Costs for Expedites are derived using volume data from the ARC system, multiplied by task time and a blended man-hour rate for engineers. A static management assumption is used to replicate the expected over-resourcing needed in order to accommodate Expedite service offerings. This static factor is set at 1.37 hours task time compared to 1 hour without Expedite service. The GRC value for NWB/NWB contains a proportion of poles, expedites, provision as well as the remaining costs relating to NWB/NWR. A percentage is calculated for these three areas, excluding the provision proportion which are then allocated to the three plant groups as follows: • Poles proportion is allocated to PG200P (Poles Capital Expenditure) • Expedite proportion is allocated to PG155B Expedite Provision Costs • The remaining proportion is allocated to PG149A Analogue Line Final Drop Data Source/s Volumes taken from ARC, NWB & NWR additions from LOPLIST, task time and rate card from Openreach finance and poles GRC values from Openreach. **PDTCJF** B. T. **Backhaul and Core Fibre Cables** Rest Description This base attributes the depreciation and asset values of our core and backhaul fibre cables. For historical reasons we have a number of different CoWs for these assets. However, in the RFS we treat them all the same. CJF is the class of work currently used for investment in Backhaul and Core fibre, but we also have some assets registered against CJC, MUC and BHQ – all such assets are treated the • CJF - Construction Junction Cable - Optical Fibre • CJC - Construction Junction Metallic Pair Cable • MUC - Construction Main Underground Cable • BHQ - Construction Submarine Cable Inland Operating costs within smaller maintenance/repair CoWs are also attributed by this base: • UJOF - Maintenance of Underground Junction Optical Fibre • UJCC - Reactive Repair of Underground Junction Copper Cable (Service Affected) • IVP - Maintenance of 2Mbits/Line-end Primary Multiplex Equipment We attribute backhaul and fibre costs onwards to plant groups using the relevant Customer-Facing or Corporate Unit OUC as an identifier. We do this because (excluding OUC Q which we cover below) all backhaul fibre costs fall solely under the remit of Openreach (OUC B) and all core fibre costs fall under the remit of BT Technology (OUCT). OUC B costs are allocated to PG170B (Backhaul Fibre). OUC T costs are allocated to PG350N (Core Fibre). Data Source/s CTCS provides us with the total amount of core and backhaul fibre kms.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
PDTCOBUS	All OUCs	Business Dropwire Maintenance
	Oucs	<u>Description</u>
		This base apportions repair costs for Business drop wires.
		<u>Methodology</u>
		The allocation is based on the share of kilo man hours (KMH) spent on Special Fault Investigation (SFI) and Time Related Charges (TRC). The cost for this activity is derived by multiplying the man-hour rate x KMH for SFI and manhour rate x KMH for TRC. The total cost for the CoW is obtained from CID and the proportion of cost allocated to SFI is based on the implied cost from the man hour rate x KMH.
		The remaining apportionment split is derived from the relative proportion of business connections between PSTN and ISDN. This connection information is obtained from Openreach Management Accounts.
		The base apportions costs to PG121M (Business PSTN Maintenance), PG123M (ISDN Highway Maintenance), PG989A (Special Fault Investigation) and PG981R (Openreach Time Related Charges).
		<u>Data Source/s</u>
		Workmanager data, CID, Openreach Man-hour Rate (sourced from ORBIT), Openreach Management Accounts.
PDTCOPM	Q	Copper Maintenance
		<u>Description</u>
		Maintenance of copper lines.
		<u>Methodology</u>
		Allocated to plant groups based on the amount of depreciation based on LMC and LDC and classes of work.
		<u>Data Source/s</u>
		FAR
PDTCORES	All	Residential Drop Maintenance
		<u>Description</u>
		This base apportions repair costs for Residential drop wires.
		<u>Methodology</u>
		The allocation is based on the share of kilo man hours (KMH) spent on Time Related Charges (TRCs) and Special Fault Investigation (SFI). The cost for these activities is derived by multiplying the man-hour rate x KMH for the above activities. The total cost for this CoW is obtained from CID and the proportion of cost allocated to SFI and TRC is based on the implied cost from the man-hour rate x KMH.
		The base apportions costs to PG981R for Openreach Time Related Charges, PG989A for Special Fault Investigation and PG150B (Abortive Visit Charges) based on KMH and the man-hour rate. The remaining cost is apportioned to PG122M.
		<u>Data Source/s</u>
		Workmanager data, CID, Openreach Man-hour Rate (sourced from ORBIT).

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)	
PDTCOR21	ALL	Metro and Core Nodes – All Suppliers	
		<u>Description</u>	
		This base apportions the historical cost and balance sheet for metro and core node equipment to Plant Groups (PGs) that were previously apportioned by PDTCORLU, PDTMETCI, PDTMETAL, PDTMETCN and PDTMETSI.	
		Core nodes are the high capacity, large scale routers providing cost efficient connections between Metro Nodes. Metro nodes provide the routing and signalling functions for the unified 21CN for voice, data and video.	
		The recipients are:	
		 PG855A Border Gateway & Signalling Firewall PG878A Metro BB LNS PG880A (BEA) Broadband Edge Aggregator PG881A (BRAS) Broadband Remote Access Server & MSE PG882A (FER) Front End Router PG887A Ethernet Edge Aggregator Bandwidth PG888A Ethernet Edge Aggregator Port PG889A Infrastructure Ethernet PG893A (MSPE) Multi Service Provider Edge Routers PG895A P-Router Large (Core) PG896A P-Router Metro PG898A Core Directors PG903A MAR 	
		<u>Methodology</u>	
		The Core-Nodes and Metro-Nodes contain functionality for the transport of connectivity, voice and broadband services, via routers.	
		We model 21CN CoW depreciation by a more detailed network element split than is on BT's general ledger, allowing us to allocate 21CN assets into detailed PGs. The model provides estimates of capital spend on a year by year basis, from which the annual depreciation for each network element is calculated and reconciled back to the LoP list at P6. The depreciation charge is calculated over the asset life of the network element. Each network element is mapped to a PG with the total depreciation charge relating to that PG driving the apportionment within the base.	
		<u>Data Source/s</u>	
		CAPEX analysis from BT Technology, Service & Operations (BT Technology), Lop List (Asset Life).	
PDTCPDMI	ALL	Enterprise CFU work on ISDN30 connections	
		<u>Description</u>	
		This apportionment base is used to re-map ISDN30 connection (classes of work (CoW) CPDI), Megastream connections ((CoW) CPDM) and Analogue connections ((CoW) PSAA). The costs include Non-ETG Pay and stores. Methodology	
		Based on a Period 12 analysis of the volumes and relative price of each of the products, the costs for all three CoWs are apportioned to PG114L (ISDN30 Connections), PG413P (Private Circuit Megastream Connections) and PG421S (Private Circuit Analogue Installation).	
		The base is currently frozen.	

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		<u>Data Source</u>
		ISDN 30 Fill Factors per connection and ISDN 30 Interconnect volumes and prices from the Openreach Sales Ledger.
PDTCPDSL	В	Circuit Provision - Asymmetric Digital Subscriber line
		<u>Description</u>
		This base apportions GEA customer site provisioning costs recorded within the CPDSL CoW to GEA provisioning plant groups.
		<u>Methodology</u>
		Based on an annual study of in-year stores costs, the costs for the CPDSL CoW are apportioned to PG957P (GEA FTTP Provision) and PG958P (GEA FTTC Provision).
		<u>Data Source</u>
		Breakdown of CPDSL cost by type
Applies to	See	PDH Equipment summary
bases below PDTCRDA,	OUCs belo	<u>Description</u>
PDTCRFA, PDTCRHQC	W	PDH assets relate to the older transmission network assets which have largely been supplemented by the more modern and fault tolerant Synchronous Digital Hierarchy (SDH) assets.
		Combinations of assets in the transmission network (i.e. two bits of electronics joined by fibre and duct) make up what is known as a "bearer". The bearers within the network carry circuits that relate to different products and bandwidths.
		The cost of a bearer includes an apportionment of the costs of these electronic assets.
		<u>Methodology</u>
		Most PDH electronics are specific to bearer types, and are dependent upon the capacity of the bearer- 2Mbps, 8Mbps, 34Mbps, 140Mbps and 565Mbps. Individual PGs capture the cost of each bearer type separately.
		TCS provides the volumes of each type of bearer. These volumes are weighted by depreciation in order to get the allocation to PG.
		Direct depreciation costs for PDH electronics, sourced from the Life of Plant (LoP) list, are driven directly to the relevant bearers' types.
		The LoP list breaks down each CoW into subcategories called asset policy codes, which provide further granularity of the equipment types within the CoW. The description of the asset policy codes allows costs to be mapped to bearer types.
		Traffic grooming equipment, in the form of multiplexers, are captured across a number of asset policy codes depending on the capacity of the equipment - 2/8mux, 2/34mux, 8/34mux, 34/140mux, 140/565mux. All multiplexer depreciation is allocated to PG399T (traffic grooming).
		Indirect costs (software, planning and test equipment asset codes) are treated as overheads and are apportioned to PGs on the basis of the direct allocations.
		<u>Data source/s</u>
		LoP list for Period 6, CTCS. Management believes this period to be reflective of the full year.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
PDTCRDA	ALL	PDH Digital Repeater Equipment
		<u>Description</u>
		This base allocates the depreciation costs and asset values of class of work CRD to Plant Groups representing bearers in the core network. A description of the assets is in the PDH equipment summary above.
		<u>Methodology</u>
		This base follows the same general methodology described in the PDH equipment summary above. This base apportions costs to the Plesiochronous Digital Hierarchy (PDH) Bearer Link PGs: PG361T, PG398T and PG399T.
		<u>Data Source/s</u>
		This base uses the data sources described in the PDH equipment summary above.
PDTCRFA	ALL	PDH Optical Fibre Repeater Equipment
		<u>Description</u>
		This base allocates the depreciation costs and asset values of class of work CRF to Plant Groups representing bearers in the core network. A description of the assets is in the PDH equipment summary above.
		<u>Methodology</u>
		This base follows the same general methodology described in the PDH equipment summary above.
		This base primarily apportions costs to the Plesiochronous Digital Hierarchy (PDH) Bearer Link PGs: PG377T, PG375T, PG379T, PG371T, PG398T and PG373T.
		<u>Data Source/s</u>
		This base uses the data sources described in the PDH equipment summary above.
PDTCRHQC	ALL	PDH Repeaters (by Contractors)
		<u>Description</u>
		This base allocates the depreciation costs and asset values of class of work CRHQ to Plant Groups representing bearers in the core network. A description of the assets is in the PDH equipment summary above.
		<u>Methodology</u>
		This base follows the same general methodology described in the PDG equipment summary above. Costs from this base are allocated to PG399T (Plesiochronous Digital Hierarchy (PDH) Bearer Link).
		<u>Data Source/s</u>
		This base uses the data sources described in the PDH equipment summary above.
PDTMG	All	General Customer Equipment & Line Faults
		<u>Description</u>
		This base apportions staff costs of indirect apparatus and network faulting work carried out by customer apparatus and line ETGs
		<u>Methodology</u>
		The allocation is based on the share of kilo man hours (KMH) spent on Time Related Charges (TRCs), NGA Visit Assure and Special Fault Investigation (SFI). The cost for these activities is derived by multiplying the man-hour rate x KMH for

Base Ref	ouc	Descriptions (For all de	scriptions below, see Appendix A	for Key Destinations)
		of the activities booked many hours are consum cost for this CoW for OU allocated to SFI and TR	s cost is then spread to various Cold against them. This analysis also led for Abortive Visit Charges for t IC: B is obtained from CID and the C is based on the implied cost fro lysis as detailed above. Any remain	provides data on how this CoW. The total Pay proportion of Pay cost m the man-hour rate x
		(Time Related Charges	osts to PG989A (Special Fault I), PG150B (Abortive Visit Charge Openreach Previously Allocated Pa	s), PG154B (NGA Visit
		Data Source/s		
		Workmanager data, CIE), Openreach Man-hour Rate (sou	rced from ORBIT).
PDTDTTK	ALL	Kilostream Assets and		,
TOTOTIK	ALL		Depreciation	
		<u>Description</u>		
			e gross book value of Kilostream ation and accumulated deprecia	
		circuits. The circuits op	d name for BT's portfolio of loverate at bandwidths of 2.4kbit/sital Private Circuit Network (DPC)	up to 64kbit/s and are
		<u>Methodology</u>		
			for these costs is derived by revi	ewing the Life of Plant
		work (CoW). This lists	mation is obtained on the DTTK the depreciation charges by asse equipment type in this class of wor	et policy code for each
		equipment types can be one for ACE/ENA equip	et policy codes, a distinction be identified and the equipment typ ment and one for Private Circuits. A dividing the depreciation charge a n for the CoW.	es split into two groups An apportionment base
		The asset policy code m	apping is shown below:	
		DTTK Kilostream Equipment	Description	Plant Group
		DKMI	Miscellaneous Eqpt	PG412C
		DTKA	Kilostream Modem	PG412C
		DTKB	Kilostream Mux/Muldex	PG400T
		DTKC	X connection site	PG412C
		DTKD	Network Term Equip	PG412C
		DTKE	Test EDM6003B-ACE Site	PG400T
		DTKF	DARTS Equipment	PG412C
		DTKG	Indirects	D0455=
		DTKH	RENACE Hardware	PG400T
		DTKL	Local Control Equipment	PG412C
		DTKM	Miscellaneous	DC 443C
		DTKN	ENA1A Shelf & Cards	PG412C
		DTKP DTKS	ET1A Shelf & Cards RENACE Software	PG412C PG400T
		DIKS	Tost Equipment	FG4001

Test Equipment

Main ACE

DTKT

DTKU

PG400T

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		Note that items that are common e.g. Indirects receive no specific treatment and are therefore spread on the existing split.
		This base apportions costs to PG400T (ACE (Automated Cross-connection Equipment) / ENA (Equipment Network Access) core equipment) and PG412C (Private Circuits Kilostream Rental Capital) which relates to the Local End to the customer.
		<u>Data Source/s</u>
		LoP List for Period 12.
PDTDTTM	ALL	Megastream
		<u>Description</u>
		Megastream is a 2Mbps (2,048Kbit/s) high speed, permanently connected, point to point private circuit.
		Megastream is a Product offered at different bandwidths (i.e. 1Mbps to 622Mbps). Apportionment is made to various Megastream bandwidths, Kilostream and ISDN30 Plant Groups (PGs) because these Products can be carried over higher bandwidth bearers (e.g. 2Mbps, 34Mbps, etc.).
		<u>Methodology</u>
		This base apportions the gross book value of Megastream equipment assets and the associated depreciation and accumulated depreciation charges to PGs. These Megastream assets are the electronic elements of the bearer. The allocation is based on the numbers of bearers on the different bearer sizes weighted by the cost of each type of bearer.
		Volumes for the different bearer sizes come from the Core Transmission Costing System (CTCS) and the London Local Fibre Network (LLFN). This is multiplied by the cost for the equipment. Different bearer sizes are represented by different Plant Groups. We identify the numbers of circuits on these bearers that are used by Kilostream (expressed in 2Mbps). We separate the cost of Kilostream and point it to its own Plant Group.
		For bearers of 2Mbps size there are two Plant Groups, one for 2Mbps supplied over Copper and one for Fibre, so a split is derived from the fixed asset register using the depreciation from asset policy codes that relate to 2Mbps fibre and 2Mbps copper.
		This base primarily allocates costs to the plant groups: PG442C (Local End 2Mbps (Copper) Equipment), PG444C (Local End Equipment 34Mbps Equipment), PG440C (Local End Equipment 4x2Mbps Equipment), and PG443C (Local End Equipment 2Mbps (Fibre) Equipment).
		<u>Data Source/s</u>
		London Local Fibre Network (LLFN), Core Transmission Costing System (CTCS), LoP List at Period 12.
PDTDUCT	B, T,	Duct
	Rest	<u>Description</u>
		This base allocates the costs relating to the duct asset. It covers all duct (core access and shared) within the BT network.
		<u>Methodology</u>
		Costs from this base are allocated to PG101D (Duct Infrastructure).

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
PDTEMP	All	Ethernet Monitoring Platform
		<u>Description</u>
		This base apportions an internal trade between PG449A (Ethernet Monitoring Platform) and Rest of BT Residual, to apportion underlying costs to PG449A but any internal traded margin to Rest of BT Residual. This internal trade (F8 code 249015) is referred to in Section 8.2 (Transfer charges which do not net to nil within the SMP Markets).
		<u>Methodology</u>
		The apportionment is based on a split of the internal trade between costs and margin, based upon a management assessment from the Global Services team.
		<u>Data Source</u>
		Global Service Trading Model
PDTETHER	ALL	Ethernet Switches
		<u>Description</u>
		This base apportions the costs and balance sheet charges for Ethernet switches to Plant Groups (PGs).
		The Ethernet Switch is part of the 21CN and contains functionality for the access and onward switching of Ethernet customers as well as Broadband including NGA (Next Generation Access). The recipients are:
		PG901A Ethernet SwitchesPG902A Ethernet Switch Customer Access Cards
		<u>Methodology</u>
		The Ethernet switch contains functionality for the transport of connectivity, voice and broadband services.
		We model 21CN CoW depreciation by a more detailed network element split than is on BT's general ledger, allowing us to allocate 21CN assets into detailed PGs. The model provides estimates of capital spend on a year by year basis, from which the annual depreciation for each network element is calculated and reconciled back to the LoP list at P6. The depreciation charge is calculated over the asset life of the network element. Each network element is mapped to a PG with the total depreciation charge relating to that PG driving the apportionment within the base.
		<u>Data Source/s</u>
		CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life).
PDTINODE	All	i-Node
		<u>Description</u>
		This base apportions the cost and balance sheet for i-Node equipment to Plant Groups (PGs).
		i-Node is where the service execution functionality is located – in essence the intelligence that controls services. In the 21CN context, this includes soft switches, network intelligence and bandwidth management capabilities.
		The recipients are:
		PG875A i-Node Features

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		PG876A i-Node Voice Call Set-Up
		<u>Methodology</u>
		The i-Node contains functionality for both the setting up of Voice Calls and the provision of Calling Features e.g. Ring Back When Free. The split of cost used is the historic ratio of costs for these activities in the System X and AXE10 Digital Local Exchange PGs as these assets have similar functionality. The assumption points 15% to Network Features (PG875A) and 85% to Voice Call Set-up (PG876A).
		<u>Data Source/s</u>
		Billing records.
PDTIPNCO	ALL	IP (Internet Protocol) Networks
		<u>Description</u>
		This base apportions costs of equipment supporting IP networks. Costs booked to classes of work (CoW) IPNC (Internet Protocol Network Capital) include provision, extension, rearrangement and recovery of IP networks by the Broadband and Data division in BT Enterprise.
		IPNC is the set of communication tools which enables computers to 'talk' to each other over the Internet. Each computer (known as a host) has at least one address that uniquely identifies it from all other computers on the Internet. Each piece or 'packet' of information sent over the Internet contains both the sender's Internet address and the receiver's address. This allows the packets to reach their intended destination, or, if necessary, to be returned to the sender.
		<u>Methodology</u>
		According to guidance from experts within the Finance function of the relevant Corporate Unit (CU), each IP piece of equipment is assigned to one of the Plant Group (PG) destinations related to IP.
		IP data and Broadband capital spend is downloaded from the Internal Project Ledger (IPL) for the previous five years. The CFU uses the sub programme for each item of capital spend to associate it with a relevant PG. The majority of the IPNC assets have a life of three years, however, SIP servers have a life of five years. The capital spend for the last three/five years (from Internal Project Ledger) is then used to derive the deprecation.
		This base apportions to various PGs, predominantly PG670A (IP Network Fixed Access), PG675A (IP VOIP infrastructure), PG666A (TVC) and PG674A (IP Core/Colossus).
		<u>Data Source/s</u>
		The Internal Project Ledger (IPL) lists depreciation costs by CoW, and produces a list of asset registrations by year, which can be found in Central Information Data warehouse (CID) Financial Reporting system. Period 12 data is used as activity after this period does not materially affect the base.
PDTIVX	ALL	Costs - Transmission Repair and Control on Trunk and Junction Transmission equipment
		<u>Description</u>
		This base apportions management pay costs of maintenance and repair works carried out on Trunk and Junction transmission equipment. This refers to the supervision of maintenance work carried out on the link sections of optical fibre cables which form part of the Core Network (also known as Core networks) and

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		Private Circuits using the Plesiochronous Digital Hierarchy (PDH) technology (see Plant Group (PG) Overview on descriptions of Core Transmission Bearers).
		These costs flow into the classes of work (CoW) TCR (Transmission Control and Repair) which relate to PGs representing bearers in the core network.
		<u>Methodology</u>
		Costs are attributed to PDH PGs based on the number of PDH Line Systems and PDH Multiplexors supporting the different PDH bandwidths.
		<u>Data Source/s</u>
		Period 6 circuit data is used from the Core Transmission Circuit costing System.
PDTKDEN	All	Kilostream Maintenance
		<u>Description</u>
		This base apportions the costs of maintaining Kilostream equipment assets. Kilostream is the brand name for BT's portfolio of low speed digital private circuits. The circuits operate at bandwidths of 2.4kbit/s up to 64kbit/s and are provided using BT's Digital Private Circuit Network (DPCN).
		<u>Methodology</u>
		This base follows the same methodology and apportionment as PDTDTTK above.
		Data Source/s
		LoP List for Period 12.
PDTLDC	All	Local Distribution Cable Construction
		<u>Description</u>
		This base apportions the costs associated with D-Side Copper Cable including depreciation, stores and pay costs.
		The Access Network for Regulatory Accounting purposes is split between exchange-side (E side) and distribution side (D-Side) copper cable. E-Side cable links the local exchange to the primary cross connection point. D-Side cable links the primary cross connection point to the Distribution Point (DP).
		<u>Methodology</u>
		This base apportions the costs to PG118C (D-side copper capital), PG200P (Poles Capex), PG301N (Poles Network Adjustments – External) and PG302N (Poles Network Adjustments – Internal) based on their proportion of depreciation.
		<u>Data Source/s</u>
		Unit cost (sourced from NIMS), Poles Volumes (sourced from Artisan) and Network Adjustment Costs.
PDTLFCM	All	Local Fibre Network Maintenance
		<u>Description</u>
		This base apportions the costs of maintaining the Access Fibre network equipment assets.
		<u>Methodology</u>
		This base apportions costs to the Spine Maintenance, NGA (Next Generation Access) Spine and NGA Distribution Plant Groups based on their proportion of

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		the Total GBV for Access Fibre. This information comes from the allocation model for Fibre CoWs.
		This base apportions costs to PG111M (Access Fibre Maintenance), PG948M (GEA FTTP Access Fibre Spine Maintenance), PG949M (GEA FTTP Distribution Fibre Maintenance), PG950M (GEA FTTC Access Fibre Spine Maintenance) and PG951M (GEA FTTC Distribution Fibre Maintenance).
		<u>Data Source/s</u>
		GBV of Access Fibre.
PDTLFDC	All	Local Fibre Distribution Cable – Profit and Loss
		<u>Description</u>
		This base apportions the profit and loss items associated with local fibre distribution cable.
		<u>Methodology</u>
		The local fibre distribution cable profit and loss values are apportioned to the following PGs based on their relative in year depreciation: PG959C (Access Distribution Fibre), PG949C (GEA FTTP Distribution Fibre), Ethernet Cablelink (PG171A), PG951C (GEA FTTC Distribution Fibre), PG300N (Duct Network Adjustments – Internal) and PG302N (Poles Network Adjustments – Internal).
		<u>Data Source/s</u>
		Fixed Asset Register.
PDTLFDCBS	All	Local Fibre Distribution Cable – Balance Sheet
		<u>Description</u>
		This base apportions balance sheet items associated with local fibre distribution cable.
		<u>Methodology</u>
		The local fibre distribution cable balance sheet values are apportioned to the following PGs based on their relative NBV: PG959C (Access Distribution Fibre), PG949C (GEA FTTP Distribution Fibre), Ethernet Cablelink (PG171A), PG951C (GEA FTTC Distribution Fibre), PG300N (Duct Network Adjustments – Internal) and PG302N (Poles Network Adjustments – Internal)
		<u>Data Source/s</u>
		Fixed Asset Register.
PDTLFSC	All	Local Fibre Spine Cable
		<u>Description</u>
		This base apportions the costs and balance sheet items (including CCA adjustments) associated with local fibre spine cable.
		<u>Methodology</u>
		The local fibre distribution cable balance sheet and profit and loss values are apportioned to the following PGs based on the relative number of fibres used for NGA (FTTP and FTTC) and Non-NGA on the Distribution side: PG111C (Access Spine Fibre), PG948C (GEA FTTP Access Fibre Spine) and PG950C (GEA FTTC Access Fibre Spine).
		Network Adjustment costs in this base are isolated before the above apportionment based on the NRC of LFSC and the NRC of network adjustment

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		costs to the following plant groups: PG300N (Duct Network Adjustments – Internal) and PG303N (Duct Network Adjustments – External).
		<u>Data Source/s</u>
		INS (Integrated Network System), Network Adjustment Costs.
PDTLMC	ALL	Exchange Side Cables
		<u>Description</u>
		This base apportions the depreciation and asset values for our exchange side copper cable assets (CoW LMC). This class of work includes:
		 Our exchange copper cables – which connect our exchange buildings to our copper cabinets. NGA tie cables – copper cables that are used to connect our copper cabinet to our GEA cabinets. Internal Tie Cables – used to connect Openreach's distribution frame to equipment provided by other communication providers.
		A small amount of cost relating to our EvoTAMS assets.
		<u>Methodology</u>
		This CoW includes a number of different assets. Therefore, we apportion the costs to PGs based on a detailed analysis of depreciation taken from our finance systems. The depreciation of each asset category is identified as follows:
		 The policy code CLLU was originally set up to identify internal tie cables, but it also includes some capitalised assets relating to EvoTAMS. In 2012, we undertook a survey of the actual jobs booked to policy code CLLU and from this survey we estimated that £37m of these assets related to EvoTAMS and not tie cables. Divided by the 18 year asset life this equates to £2m of depreciation. This element is apportioned to PG151B (Broadband Line Testing). This treatment is consistent with Ofcom's modelling in the FAMR in 2012. The remaining depreciation on the policy code CLLU does relate to the internal tie cable assets and so we apportion this element to PG130A (Local Loop Unbundling Tie Cables). NGA tie cables are not identified under a separate policy code, so we calculate the depreciation based on the cumulative capital expenditure identified on our Internal Project Ledger (IPL) and divide this expenditure by the 18 year asset life. We can identify and allocate that element of cost which is NGA Commercial. This element is apportioned to PG192A (NGA E-side Copper Capital). The remaining depreciation for this class of work relates to E-side copper
		cables and this element is apportioned to PG117C (E-side Copper Cable). Data Source/s
		LoP List, a report derived from our fixed asset register to identify total amount of depreciation on policy code CLLU and to confirm the asset live for all assets on this class of work.
		Internal Project Ledger (IPL) to identify the cumulative capital expenditure for tie cables connecting our copper cabinets and GEA cabinets.
		2012 detailed survey of jobs booked to policy code CLLU to determine the amount of assets relating to EvoTAMs.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
PDTLMD	Т,	Local Main (Exchange Side) Duct
	Rest	<u>Description</u>
		This base apportions costs and balance sheet associated with Local exchange side Duct for Copper.
		<u>Methodology</u>
		This is a Rule Type 3 attribution.
		Costs are apportioned between three plant groups based on the depreciation estimate from detailed capital expenditure on NGA projects on the Internal Project Ledger, divided by the depreciation on Class of work LMD (Local exchange side Duct for Copper) as a whole. The two PG that are apportioned using this method are:
		PG192 (NGA E-Side Copper Capital) from Openreach (B) and Other (Q) OUCs.
		PG180A (Other WLA) from Openreach (B) and Other (Q) OUCs.
		The remainder of the costs are then allocated on to PG101D (Duct Infrastructure).
		<u>Data Source/s</u>
		Internal Project Ledger (IPL).
PDTLMDF	ALL	Main Distribution Frames in Local Exchanges
		<u>Description</u>
		This base apportions the costs and balance sheet associated with main distribution frames in local exchanges. Main distribution frames are the interface between the exchange side cables and the exchange switching equipment. Exchange side cable is the cable that links the exchange to the primary cross connection point. This is illustrated in the diagram in PDTLMC above.
		<u>Methodology</u>
		Main distribution frames support the activities of the E-side copper cable. The apportionment of these costs can therefore be based on the relative sizes of the year to date depreciation of MDF assets at Period 12 for both E-side copper cable and local loop unbundling frame usage. These figures are taken from the LoP list.
		The costs and balance sheet items are apportioned to:
		PG217E (Local Exchange General Frames Capital).
		PG130A (Local Loop Unbundling Tie Cables).
		Data Source/s
		LoP List at Period 12.
PDTLTME		PDH Network Transmission Monitoring Equipment
		<u>Description</u>
		This base apportions balance sheet items and costs related to the Plesiochronous Digital Hierarchy (PDH) CoW LTME. This CoW is for the planning, provision, wiring, commissioning and recovery of any Exchange Data Collection Equipment, associated processing equipment and central monitoring processing facility.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		<u>Methodology</u>
		Costs are apportioned over different PDH bandwidth bearers based on equipment counts from CTCS of PDH optical and non-optical repeaters in the Core Network - see PDTCRF and PDTCRD.
		This base primarily apportions costs to the PDH Bearer Link PGs: PG361T, PG365T, PG367T, PG371T, PG373T, PG375T, PG377T, and PG379T.
PDTLXTM	В,	Local Exchange Testing
	Rest	<u>Description</u>
		This base apportions the costs of the Local Exchange Test and Measure (LXTM) classes of work (CoW). This covers common or centralised testing, monitoring or access equipment for Local Exchanges that is not directly associated with a particular exchange system type.
		<u>Methodology</u>
		The depreciation charges from the LoP List for the CoW are analysed by asset policy code and broken down into:
		Exchange equipment used to test local exchanges - this is Test Access Matrix (TAMS) equipment.
		For Openreach costs are apportioned to PG151B (Broadband Line Testing Equipment (Openreach)) and for Technology costs are apportioned to PG151N (Broadband Line Testing Equipment (BT Technology)).
		Other costs. This is line test equipment and costs are apportioned to PG240A (Analogue Line Testing Equipment).
		Data Source/s
		Latest available LoP list.
PDTLYX	ALL	AXE10 Exchanges
		<u>Description</u>
		This base apportions the costs and balance sheet charges for AXE10 local exchange equipment.
		AXE10 equipment is equipment in BT's network manufactured by Ericsson.
		<u>Methodology</u>
		This base apportions the F8 codes mapped to it in the same way as base reference PDTSYSXD, except that the weighting between concentrators and processors is based on modern equivalent asset depreciation values rather than historical cost depreciation values.
		There are two fundamental building blocks of AXE10 exchanges:
		Concentrators Processors
		These building blocks are significantly different, and are each made up of many specific equipment elements. Each of these elements will relate to a specific PG. Therefore, to create an apportionment base, we need to 'dimension' each of these specific equipment elements.
		Concentrators
		Step 1 – We determine the modern equivalent asset value of all the equipment elements of concentrators in the network.

We obtain, from the Exchange Planning and Review System (EXPRES) system, data that details the line types and the total number of lines fitted to each concentrator in the BT network. This data is entered an engineering model which dimensions the number of equipment elements required to make up that number of lines. The quantities of each equipment element are then multiplied by an appropriate element cost to arrive at the total cost for each equipment element.

The appropriate element cost that the engineering model utilises is the modern equivalent asset amounts for each type of equipment element. These are obtained from the Price Element Scheduled (PES) as part of the LEMP (Local Exchange Modernisation Program). The figures that are used from this are the March 1995 figures. These figures are frozen as this equipment is no longer available for purchase.

Step 2 – We determine an estimate of the modern equivalent asset depreciation value for the equipment building blocks.

The current year's asset life determinations are applied to the total modern equivalent asset values of the equipment identified in step 1 to create a modern equivalent asset depreciation charge for the year. Asset lives are calculated and determined by relevant CFU each year. This is completed via a review process undertaken by experts in this field. Where an individual building block does not have an individual asset life set in this process, the equated life of the Class of Work (CoW) is applied.

 $Step\ 3$ – We allocate the depreciation charge into call set-up, access and call duration categories.

Using detailed information obtained from the switch manufacturer, which analyses how the different equipment types within the switch are used to provide service, the total modern equivalent asset depreciation value for each type of equipment element is allocated to the following categories:

- Call set-up
- Call duration
- Access

Total modern equivalent asset depreciation charges under each of the three categories can then be calculated.

This step illustrates the reason for using modern equivalent asset values to create the apportionment base for the historical cost AXE10 values. The manufacturer's matrix is crucial in providing the link between the F8 codes and the PGs that they are apportioned to. The equipment elements in the manufacturer's matrix cannot be reconciled to asset policy codes that are based on historical cost values. However the PES equipment elements compiled as part of the LEMP do reconcile to the manufacturers matrix and these items are listed at modern asset equivalent values.

Step 4 – We apportion the Access category into more detailed access categories (which will be linked to PGs at a later stage).

The total modern equivalent asset depreciation value allocated to the category 'access' must be further split into the following categories:

- Public Switched Telephone Network (PSTN)
- Integrated Services Digital Network (ISDN2)
- ISDN30
- Payphones

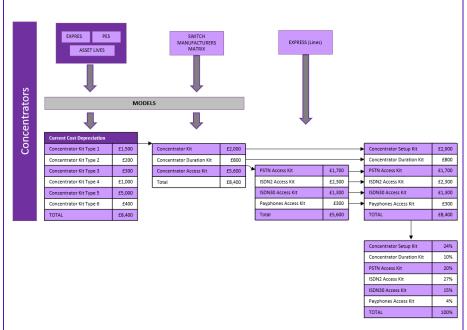
This apportionment is calculated based on the relative proportion of cost already identified in the engineering model.

Step 5 - We create the concentrator weighted base.

Using the modern equivalent asset depreciation amounts calculated for the above-listed categories, create a weighted base for concentrator kit.

The above steps are represented in the flowchart attached below:

Diagram: Overview of Historical Cost Balance Sheet - Concentrators.



*percentages are for illustrative purposes only

Processors

Step 1 – We determine the modern equivalent asset value of all the equipment elements of processors in the network.

We obtain, from the EXPRES system, data on the number of different lines connected to each processor in the BT network. Data is also obtained from the Network Recording System (NRS) on the size of all the processors in the BT Network. This data is then entered an engineering model which dimensions the number of equipment elements required to make up that total processing capacity.

The quantities of each equipment element are then multiplied by an appropriate element cost to arrive at the total cost for each equipment element. The appropriate element cost that the engineering model utilises is the modern equivalent asset values for each type of equipment. This is obtained from the Price Element Scheduled (PES) items as part of the Local Exchange Modernisation Program (LEMP). The figures that are used from this are the March 1995 figures. These figures are frozen as this equipment is no longer available for purchase.

Modern equivalent asset values are used for the same reason as stated above for concentrators.

Step 2 – Determine an estimate of the Current Cost depreciation value for the equipment building blocks.

The current year's asset life determinations are applied to the total Current Cost values of the equipment identified in step 1 to create a Current Cost depreciation charge for the year. Asset lives are calculated and determined by the relevant CFU each year. This is completed via a review process undertaken by experts in

this field. Where an individual building block does not have an individual asset life set in this process, the equated life of the CoW is applied.

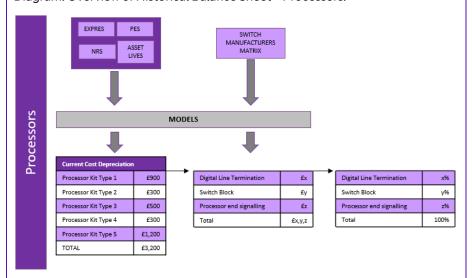
Total modern equivalent asset depreciation values under each of the two categories can then be calculated.

Step 3 – Create processor weighted base.

Using the modern equivalent asset depreciation amounts calculated for the above-listed categories, create a weighted base for processor kit.

The above steps are represented in the flowchart attached below:

Diagram: Overview of Historical Balance Sheet - Processors.



* Percentages are for illustrative purposes only.

Apportionment to Plant Groups (PGs)

We now have two sets of apportionment data with both the concentrator and the processor apportionments adding up to 100%. The next step in the process is to weight the concentrator and processor apportionments. This base uses modern equivalent asset depreciation values to create the weighting from within the model.

 $Step\ 1$ – We calculate the total modern equivalent asset depreciation charges for AXE10 equipment

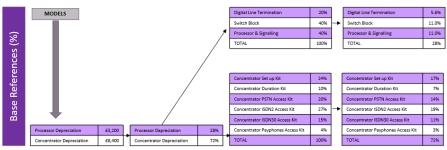
From the calculations above, the total of the modern equivalent asset depreciation charges for processor equipment is calculated. The total of the modern equivalent asset depreciation values for concentrator equipment is also calculated.

Step 2 - We create a weighted base for apportionment percentages

Using the relative proportions between processors and concentrators derived from the previous step, the apportionment's calculated for processors and concentrators can be weighted.

The above steps can be represented in the flowchart attached below:

Diagram: Historical Balance Sheet - Apportionment to PGs



^{*} Percentages are for illustrative purposes only.

Step 3 - We apportion costs to PGs

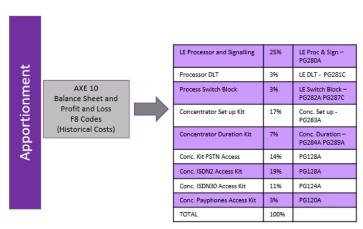
The apportionments are applied to the following Plant Groups (PGs) based on an analysis of the most appropriate fit for the building blocks. These are then applied to the historical cost Balance Sheet (i.e. gross book value (GBV) and accumulated depreciation) and historical cost Profit and Loss (i.e. depreciation etc.) charges for AXE10 local exchange equipment.

The PGs that the apportionments point to are as follows:

Category	Plant Group
AXE10 Local Exchange Processor	PG280C (Local Exchange Processor
and Signalling	(AXE10) Equipment)
AXE10 Local Exchange Digital	PG281C (Local Exchange Line
Line Termination	Transmission (AXE10) Equipment)
AXE10 Local Exchange Switch	PG282A (Local Exchange Switch Block
Block	(AXE10))
AXE10 Concentrator Set-Up	PG283A (Local Exchange Conc
	(AXE10) Call set-up)
AXE10 Concentrator Duration	PG284A (Local Exchange Conc
	(AXE10) Call Duration)
PSTN Linecards	PG127A (Analogue Linecards)
ISDN2 Linecards	PG128A (ISDN2 Linecards)
ISDN30 Capital /Maintenance	PG124A (ISDN30 Equipment)

This can be represented in the flowchart below:

Diagram: Historical Balance Sheet and Profit and Loss (P&L) Apportionment to PGs



Data Source/s

 ${\sf EXPRES}$ and NRS Systems. Management uses a period that is reflective of the full year.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
PDTMDEN	ALL	Private Circuits Megastream Maintenance
		<u>Description</u>
		This base apportions the costs of maintaining Megastream equipment assets. Megastream is a 2Mbps (2,048kbit/s) high speed, permanently connected, point to point private circuit.
		<u>Methodology</u>
		This base follows the same methodology and apportionment as PDTDTTM above.
		<u>Data Source/s</u>
		Current Cost values of bearers, volumes of circuit types and depreciation for the most recent period of the year. London Local Fibre Network (LLFN), Core Transmission Costing System (CTCS) and LoP list at Period 12. Management believe this period to be reflective of the full year.
PDTMDF	В	Main Distribution Frames (Current)
		<u>Description</u>
		This base apportions current account costs for main distribution frames.
		<u>Methodology</u>
		The allocation is based on the share of kilo man hours (KMH) spent on Time Related Charges (TRCs) and Special Fault Investigation (SFI). The cost for these activities is derived by multiplying the manhour rate x KMH for the above activities. The total cost for the CoW is obtained from CID and the proportion of cost allocated to SFI and TRC is based on the implied cost from the manhour rate x KMH. The residual proportion of the cost after subtracting the above is apportioned to Local Exchange Frames.
		The remaining cost is apportioned to PG217F Local Exchange Frames (Current).
		This base apportions costs to PG217F (Local Exchange Frames (Current)), PG981R (Openreach Time Related Charges), and PG989A (Special Fault Investigation).
		<u>Data Source</u>
		Workmanager data, CID, Openreach Manhour Rate (sourced from ORBIT), Openreach Management Accounts.
PDTMDF	All	Main Distribution Frames (Current)
		<u>Description</u>
		This base apportions current account costs for main distribution frames. The cost is mainly booked by the Technology CFU
		<u>Methodology</u>
		The costs for this base are allocated to PG217R Main Distribution Frames Maintenance (BT Technology).
PDTMDSL	All	Main Distribution Frames (Current)
		<u>Description</u>
		This base apportions current account costs for maintenance of digital subscriber line equipment.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		<u>Methodology</u>
		The allocation is based on the share of kilo man hours (KMH) spent on Special Fault Investigation (SFI). The cost for this activity is derived by multiplying the manhour rate x KMH for SFI. The total cost for the CoW is obtained from CID and the proportion of cost allocated to SFI is based on the implied cost from the manhour rate x KMH.
		The residual proportion of the cost after subtracting the above is apportioned to Digital Subscriber Line.
		This base apportions costs to PG118M (D-Side Copper Maintenance) and PG989A (Special Fault Investigation).
		<u>Data Source</u>
		Workmanager data, CID, Openreach Manhour Rate (sourced from ORBIT), Openreach Management Accounts.
PDTMSAN	ALL	Fujitsu and Huawei MSANs
		<u>Description</u>
		This base apportions the cost and balance sheet for Fujitsu and Huawei manufactured MSANs (Multi Service Access Nodes) equipment to Plant Groups (PGs).
		The recipients are:
		 PG857A CMSAN Combi Cards BB element. PG859A CMSAN Control Access. PG860A CMSAN Control Transport. PG861A CMSAN ISDN30 Cards. PG862A CMSAN Low Band SDSL cards =<2Mbps. PG869A FMSAN Control Access. Methodology
		We model 21CN CoW depreciation by a more detailed network element split than is on BT's general ledger, allowing us to allocate 21CN assets into detailed PGs. The model provides estimates of capital spend on a year by year basis, from which the annual depreciation for each network element is calculated and reconciled back to the LoP list at P6. The depreciation charge is calculated over the asset life of the network element. Each network element is mapped to a PG with the total depreciation charge relating to that PG driving the apportionment within the base.
		<u>Data Source/s</u>
		CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life).
PDTMTLUR	All	Repair of Consumer's Wiring
		<u>Description</u>
		This attributes the costs relating to the maintenance of end-user customers' internal wiring and network termination equipment (NTE) as covered by our CoW: MTLUR. These costs arise when additional engineering time is requested by Other Operators for fixed line services not included in Openreach's standard services.
		<u>Methodology</u>
		The attribution is based on the share of kilo man hours (KMH) spent on Special Fault Investigation (SFI). The cost for this activity is derived by multiplying the manhour rate x KMH for SFI. The total cost for the CoW is obtained from CID and

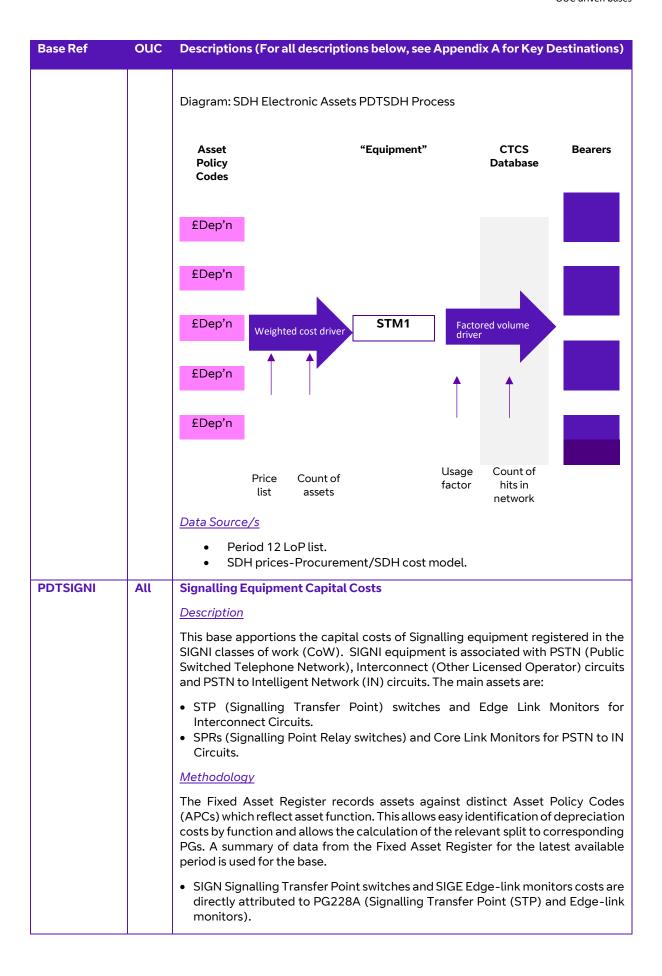
Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		the proportion of cost allocated to SFI is based on the implied cost from the manhour rate x KMH.
		The residual proportion of the cost after subtracting the above is apportioned to Residential PSTN Maintenance.
		This base apportions costs to PG122M (Residential PSTN Maintenance) and PG989A (Special Fault Investigation)
		<u>Data Source</u>
		Workmanager data, CID, Openreach Manhour Rate (sourced from ORBIT), Openreach Management Accounts.
PDTMXD	ALL	Main Exchange Capital
		<u>Description</u>
		This base apportions the depreciation and capital costs of Main/Trunk Switches. The costs are recorded in two Classes of Work (CoW).
		MDX for System X switchesNGSC for Next Generation Switches (NGS)
		The base also apportions the maintenance costs for Main/Trunk switches. These costs are recorded in two classes of work.
		DMS for System X SwitchesNGSM for Next Generation Switches (NGS)
		<u>Methodology</u>
		This methodology produces a combined base used for both MDX and NGS since the MDX assets are a legacy technology that has been superseded by the Modern Equivalent Asset of NGS.
		Firstly, a fixed asset download is taken of both the MDX and NGS CoWs. The proportion of depreciation relevant to Intelligent Access and Messaging is attributed to its own Plant Group PG254A (Main Digital Exchange – Intelligent Access and Messaging) by identifying assets by policy code or asset descriptions.
		These costs are apportioned using a bottom-up build engineering model that uses inputs of the NGS capacities from the Switch Deployment Plan sourced from the Planning team. The model dimensions each exchange in the most efficient way. The total cost is obtained for all the exchange units and the model costs are assigned as to whether they relate to the three overall building blocks:
		 Digital Line Termination (DLT) Processor Switch Block
		The relative proportions of these are used to determine the apportionment to the plant groups:
		 PG249C (Main Exchange DLT (Digital Line Termination) PG255B (Main Exchange Switch Block) PG257C (Main Exchange Processor)
		<u>Data Source/s</u>
		Bottom-up build engineering model that uses:
		 EXPRES (Exchange Planning and Review System) – Supplies the number of System X and Next Generation Switches (NGS) units in service. Network Recording System (NRS) – Supplies the fitted and working capacities of System X and Next Generation Switches (NGS) units.

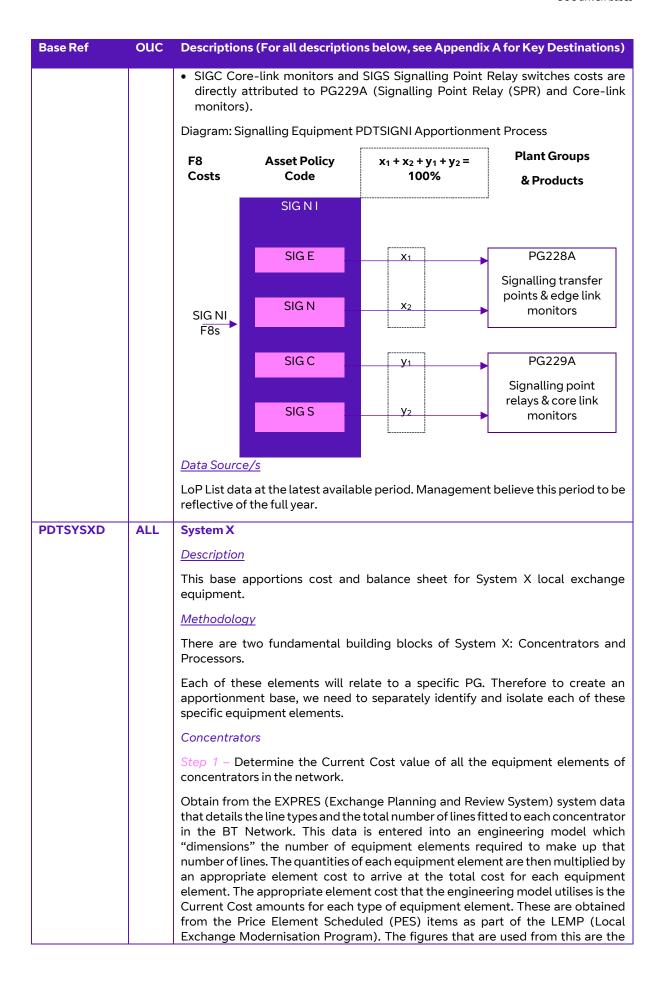
Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		 Switch Deployment Plan – Also contains evidence on the fitted capacity of working NGS units together with dates of migration from System X to NGS. Fixed Asset Register.
PDTNTE21	ALL	21C Network Terminating Equipment
		<u>Description</u>
		This base apportions the historical cost Balance Sheet (i.e. gross book value and accumulated depreciation) and historical cost Profit and Loss (P&L) (i.e. depreciation etc.) charges for 21C Network Terminating Equipment.
		This allocates 100% to PG867A 21C Ethernet NTE.
		<u>Methodology</u>
		This base apportions the cost and balance sheet for 21C Network Terminating Equipment.
PDTORSFI	All	Dropwire repair Overhead Cable
		<u>Description</u>
		This base apportions repair costs for drop wires.
		<u>Methodology</u>
		The allocation is based on the share of kilo man hours (KMH) spent on Time Related Charges (TRCs), NGA Visit Assure and Special Fault Investigation (SFI). The cost for these activities is derived by multiplying the manhour rate x KMH for the above activities. The total cost for the CoW is obtained from CID and the proportion of cost allocated to SFI and TRC is based on the implied cost from the manhour rate x KMH.
		The residual proportion of the cost after subtracting the above will go to Residential PSTN Maintenance.
		This base apportions costs to:
		 PG122M (Residential PSTN Maintenance) PG989A (Special Fault Investigation) PG981R (Openreach Time Related Charges) PG154B (NGA visit assure)
		<u>Data Source</u>
		Workmanager data, CID, Openreach Manhour Rate (sourced from ORBIT)
PDTPANDA and PANDAL	All	Power and Accommodation (Back-Up Power and Specialised Accommodation Equipment)
		<u>Description</u>
		This base apportions:
		 Maintenance and non-maintenance costs of systems providing heating, ventilation, air conditioning and general environmental control in BT's Network Operational Buildings (i.e. non-office buildings such as property occupied by local exchanges); Maintenance costs on equipment providing power to BT's Network Operational Buildings; Balance Sheet and associated depreciation charges of equipment providing power to BT's Network Operational Buildings. The costs and assets are apportioned to Plant Groups and Rest of BT Residual.
		The costs and assets are apportioned to Plant Groups and Rest of BT Residual.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		<u>Methodology</u>
		The methodology is the same as used for ELECT1/T, excluding an attribution to PG192A. This is because NGA cabinets are located at street level and therefore do not consume exchange power overheads.
		<u>Data Source/s</u>
		P6 version of the specialised electricity base ELECT1/T.
		Uses Period 6 equipment volumes (or most recent volumes available). The key systems used to provide the volumes for calculation of this base are listed below:
		EXPRES – Volumes for switch equipment
		 INS – Volumes for PDH transmission equipment and CWSS/DWSS equipment PACS – Volumes for SDH transmission equipment and 21CN equipment Oracle Business Intelligence (OBI) Reports – Volumes for DPCN equipment (EDM and ENA) NISM – Volumes for ADSL (DSLAMs) AIM – -/MSIP equipment
		 LLUMS – actual power readings for LLU meters Horizon – a Group Property database that shows how the floor space is being used for each building is used by Group Property to raise their charges to CFUs/CUs; Peacemaker – radio Infrastructure.
PDTRAR	All	Routing and Records Base – Openreach
		Description
		This base allocates the costs relating to the routing and records activity. This activity is the physical verification of routings within the network, and records the time associated with the initial recording of routing details on BT systems.
		It also apportions Capital Planning Pay and Non-Pay costs which are not directly related to the routing and records activity.
		<u>Methodology</u>
		Bookings to the Class of Work (CoW) RAR (Routing and Records) consist of two elements.
		 The first element is the time booked that is directly related to the Routing and Routing activity, as defined in the CoW description. The second element, Capital Planning, is the time spent on activities that are outside of the CoW description and allocated to Capital Programmes. This consists of bookings made by non-field units, maintenance of records and planning indirects.
		A survey/estimate is provided by the field operations manager for Routing and Records. This survey is used to split the costs into the two elements.
		 The portion of cost proper to Routing and Records is allocated to PG140A (Routing and Records). The portion that relates to capital programme will be apportioned using the PDTDUCT base). This base is used because it exhausts costs to Fibre capital plant groups which make use of the planning system that Routing & Records activity uses.
		<u>Data Source/s</u>
		Survey/Estimate provided by Operations manager responsible for Routing & Records.

Base Ref	ouc	Descriptions (For all d	escriptions below, see Appendix A for Key Destinations)	
PDTSBSBB	All	Broadband Boost		
		<u>Description</u>		
		This base apportions re	epair costs for Broadband Boost.	
		Methodology		
			0% to PG580B, except for B OUC where the apportionment	
		is split between PG580 against CoW SBSBB	B and PG986R based upon the average % of hours booked that are pertinent to Broadband Boost (PG580B). This s to be allocated to PG986R (Openreach Other Activities).	
		Data Source/s		
		Analysis of SBSBB lec Unit (CFU).	lger bookings provided by Openreach Customer-Facing	
PDTSCNM	All	Network Platform Sup	pport Contract Costs	
		<u>Description</u>		
		vendor provided supp detailed list of platfori	he Profit and Loss (Other Payments) costs of technology fort usually under fixed term support contracts. The full ms supported is obtained from the Vendor Management blogy and includes the following high level Platforms:	
		TransmissionSwitchBroadbandPrivate CircuitsIntelligent Networks	s etc.	
		<u>Methodology</u>		
		Step 1 – Platform level	breakdown	
		I	ethodology breaks down the total Support Contract Costs latform specific categories. This data originates from the and Managers.	
		Step 2 – PG level break	down	
		The Platform costs are apportioned to relevant PGs (weighted by step 1). T method of attributing across each Platform specific PG is driven by the relevant Platform base.		
		The following data sou	rces are used to provide the step 2 allocations:	
		CoW	Source data or base used for CoW driver	
		ASN	100% to PG227A, Advanced Switching Units	
		DMC	PDTDMC	
		DX	PDTSYSXD	
		DY	PDTLYX	
		ETHER	PDTETHER	
		INM	PDTINM	
		IVS	PDTSDH	
		KDEN	PDTIVX PDTKDEN	
		MDEN	PDTMDEN	
		MSAN	PDTMSAN	
		MDX	PDTMXD	

Base Ref	ouc	Descriptions (For all de	escriptions below, see Appendix A for Key Destinations)
		IP	PDTIPNCO
		Other 21CN CoWs	Weighted 21CN base using PDTMSAN, PDTETHER, PDTWDM21 and PDTCOR21
		Step 3 – Amalgamation	
			ulated in step 2 are amalgamated back into an SCNM level puts from steps 1 and 2.
		<u>Data Source/s</u>	
			l Contract Support costs (Provided by BT Technology), ,BT Technology & Openreach Life of Plant list.
PDTSDH	ALL	SDH (Synchronous Dig	ital Hierarchy) Electronic Assets
		<u>Description</u>	
			the balance sheet and cost values for CoW SDH and CoW IVS (Maintenance, Synchronous Digital Transmission
		to PDH. They complem	electronic assets in the Transmission network compared ent the transmission equipment capacity provided by the Hierarchy (PDH) assets – see PDTCRD and PDTCRF.
		IVS capture the corresp	onding maintenance costs incurred on SDH equipment.
		asset types within it. Th	a number of asset policy codes, representing the different e driver and destination for these policy codes does vary. to bearer links, which can either be STM1, STM4, STM16 by a number of PGs.
		Asset types within SDH	can be classified into a number of key categories:
		Cross Connects - (RoLine systems.International Backha	DMs) - Exchange and customer sited). Outing equipment - Two main types-4/1 and 4/4). Outling equipment. Outling equipment. Outling equipment, etc.).
		<u>Methodology</u>	
		equipment and the nur represented by a PG. T based on usage and u interfaces with a piece utilisation is considered	on Circuit costing System) generates a file listing all SDH mber of factored hits by bearer type. Each bearer type is he cost of equipment is allocated to several bearer types tilisation. Hits represent the number of times a bearer of equipment. A factor is applied in order to ensure, for example an STM 4 (565Mbps) bearer would utilise and that an STM 1 (155Mbps) bearer.
		type - SMA1, SMA4 ar	SDH assets by bandwidth, e.g. ADMs are broken down by d SMA 16. BT's initial calculations are at an asset policy s group assets into broad categories which we can map to CTCS.
		code, is used to weight an overall asset police	uipment * Price) of each equipment type, within a policy the factored hits. The hits are then grouped together, at ty level. These hits are then weighted by Period 6 Period 6 LoP list. This is derived from the fixed asset
		The costs are then appo	ortioned to PGs representing the relevant bearer types.
			ed as overheads and are apportioned to PGs in proportion oment already apportioned.





March 1995 figures. These figures are frozen as this equipment is no longer available for purchase.

Step 2 – Determine an estimate of the Current Cost depreciation value for the equipment building blocks.

The current year's asset life determinations are applied to the total Current Cost values of the equipment identified in Step 1 to create a Current Cost depreciation charge for the year. Asset lives are calculated and determined by the relevant CFU each year. This is completed via a review process undertaken by experts in this field. Where an individual building block does not have an individual asset life set in this process, the equated life of the Class of Work (CoW) is applied.

Step 3 – Allocate the depreciation charge into call set-up, access and call duration categories using cost drivers.

Using detailed information obtained from the switch manufacturer, which analyses how the different equipment types within the switch are used to provide service, the total Current Cost depreciation value for each type of equipment element is allocated to the following categories:

- Call set-up.
- Call duration.
- Access.

Total Current Cost depreciation values under each of the three categories can then be calculated.

This step illustrates the reason for using Current Cost values to create the apportionment base for the historical cost System X values. The manufacturer's matrix is crucial in providing the link between the F8 codes and the PGs that they are apportioned to. However the equipment elements in the manufacturer's matrix cannot be reconciled to asset policy codes that are based on historical cost values. However the PES equipment elements compiled as part of the LEMP do reconcile to the manufacturers matrix and these items are listed at modern asset equivalent values.

Step 4 – Apportion the Access category into more detailed access categories, which will be linked to PGs in later stages.

The total Current Cost depreciation allocated to the category 'access' must be further split into the following categories:

- Public Switched Telephone Network (PSTN).
- Integrated Services Digital Network (ISDN2).
- ISDN30.
- Payphones.

This apportionment is calculated based on the relative proportion of cost already identified in the engineering model.

Step 5 - Create concentrator weighted base.

Using the Current Cost depreciation amounts calculated for the above-listed categories, create a weighted base for concentrator kit.

The above steps are represented in the flowchart below:

*percentages are for illustrative purposes only

Processors

 $Step\ 1$ — Determine the Current Cost value of all the equipment elements of processors in the network.

Obtain from the EXPRES system data on the number of different lines connected to each processor in the BT network. Data is also obtained from NRS (Network Recording System) on the size of all the processors in the BT network. This data is then entered an engineering model which "dimensions" the number of equipment elements required to make up that total processing capacity. The quantities of each equipment element are then multiplied by an appropriate element cost to arrive at the total cost for each equipment element. The appropriate element cost that the engineering model utilises is the Current Cost amounts for each type of equipment. This is obtained from the PES items as part of the LEMP. The figures that are used from this are the March 1995 figures. These figures are frozen as this equipment is no longer available for purchase.

Current Cost values are used for the same reason as stated above for concentrators.

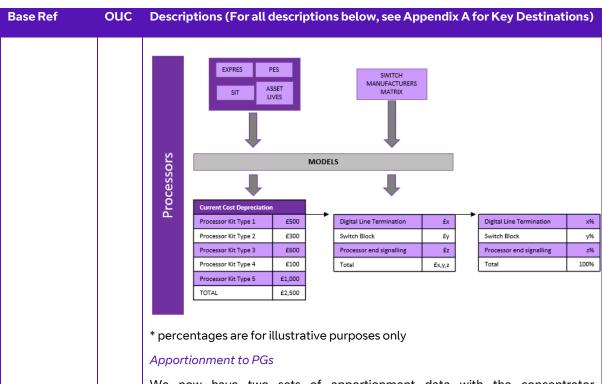
 $Step\ 2$ – Determine an estimate of the Current Cost depreciation value for the equipment building blocks.

The current year's asset life determinations are applied to the total Current Cost values of the equipment identified in step 1 to create a Current Cost depreciation charge for the year. Asset lives are calculated and determined by the relevant CFU each year. This is completed via a review process undertaken by experts in this field. Where an individual building block does not have an individual asset life set in this process, the equated life of the CoW is applied.

Step 3 - Create processor weighted base.

Using the Current Cost depreciation values calculated for the above-listed categories, create a weighted base for processor kit.

The above steps are represented in the flowchart below:



We now have two sets of apportionment data with the concentrator apportionments add up to 100% and the processor apportionments also add up

to 100%. The next step in the process is to weight the concentrator and processor apportionments. This base uses modern equivalent asset depreciation values to create the weighting from within the model.

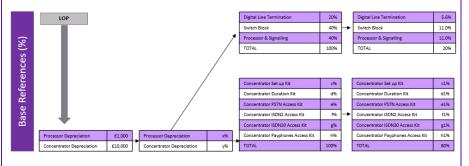
Step 1 – Total the modern equivalent asset depreciation charges for System X equipment.

From the calculations above, the total of the modern equivalent asset depreciation charges for processor equipment is calculated. The total of the modern equivalent asset depreciation values for concentrator equipment is also calculated.

Step 2 - Create weighted base for apportionment percentages.

Using the relative proportions between processors and concentrators derived from the previous step, the apportionments calculated for processors and concentrators can be weighted.

The above steps can be represented in the flowchart below:

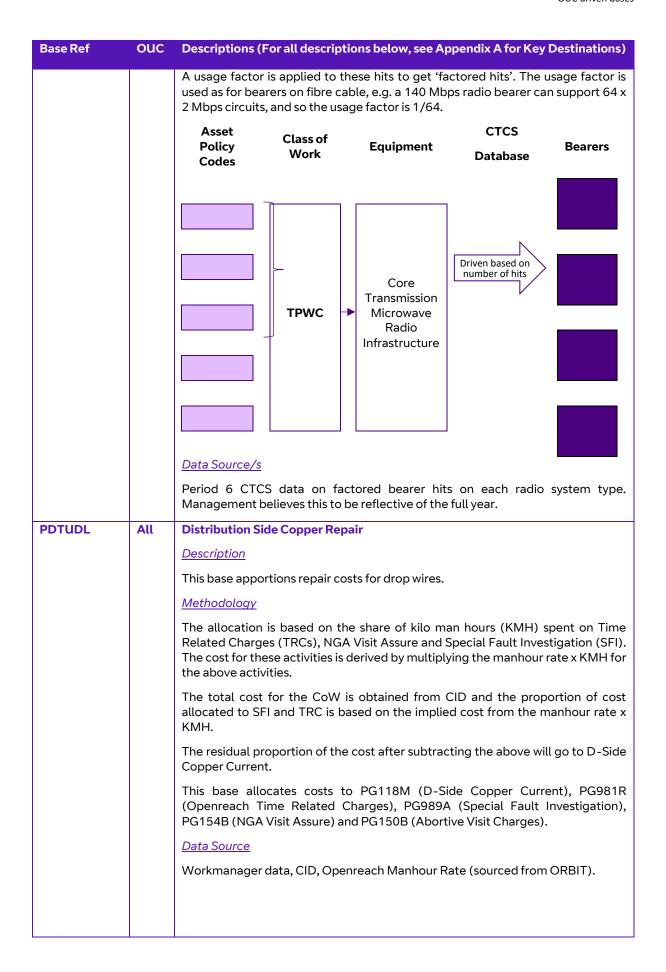


^{*}percentages are for illustrative purposes only

Step 3 – Apportion amounts to PGs.

These apportionments are applied to the following PGs based on an analysis of the most appropriate fit for the building blocks. These are then applied to the

ouc **Base Ref** Descriptions (For all descriptions below, see Appendix A for Key Destinations) historical cost Balance Sheet (i.e. GBV and accumulated depreciation) and historical cost Profit and Loss (i.e. depreciation etc.) charges for System X local exchange equipment. The PGs that the apportionments point to are as follows: Catagory **Plant Group** PG288A System X Concentrator Call set-up System X Concentrator Call duration PG289A **PSTN Linecards PG127A** ISDN2 Linecards **PG128A** ISDN30 Capital PG124A System X DLE Processor and Signalling PG285C System X DLE Processor Capital PG286C System X DLE Switch Block PG287A This is represented in the flowchart below: PG286C Digital Line Terminating Equipment Switch Block Equipment PG287A Apportionment Processing & Signalling Equipment PG285A System X PG288A Concentrator Set-up Balance Sheet and Profit and Loss Concentrator Duration Kit PG289A F8 Codes Conc. PSTN Access Kit (Historical Costs) Conc. ISDN2 Access Kit PG128A Conc. ISDN30 Access Kit PG124A Conc. Payphones Access Kit PG120A Data Source/s EXPRES (Exchange Planning and Review System). LEMP (Local Exchange Modernisation Program) Contract - The figures that are used from this are the March 1995 figures. These figures are frozen as this equipment is no longer available for purchase. **PDTTPWC ALL Costs - Core Microwave Radio Transmission Equipment** Description This base apportions balance sheet items and costs related to two core microwave radio transmission CoWs: • TPWC - equipment class of work (CoW). Unlike cable transmission, radio only utilises link related equipment. Examples of this equipment are antennas, masts and radio electronics. • MCRS - maintenance CoW, for Access Cord Radio Systems. This covers testing and maintenance of network radio systems in the inner and outer core inland telecommunications network. Network radio systems are maintained on MCRS Works orders. Methodology Costs are apportioned over the different bandwidth bearers based on an analysis of radio bearers in the core transmission network which is derived from the CTCS database. CTCS shows the relationship between equipment types and the bearers they support. The depreciation costs of radio equipment can be apportioned to radio bearers based on the bearers' usage of this equipment. Usage is measured as the number of times a certain type of bearer "hits" the equipment in the network.



Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)	
PDTUEL	All	Exchange Side Copper Repair	
		<u>Description</u>	
		This base apportions repair costs for drop wires.	
		<u>Methodology</u>	
		The allocation is based on the share of kilo man hours (KMH) spent on Time Related Charges (TRCs), NGA Visit Assure and Special Fault Investigation (SFI). The cost for these activities is derived by multiplying the manhour rate x KMH for the above activities.	
		The total cost for the CoW is obtained from CID and the proportion of cost allocated to SFI is based on the implied cost from the manhour rate x KMH.	
		The residual proportion of the cost after subtracting the above will go to E-Side Copper Current.	
		This base apportions costs to: PG117M (E-Side Copper Current), PG989A (Special Fault Investigation), PG154B (NGA Visit Assure) and PG981R (Time Related Charges).	
		<u>Data Source</u>	
		Workmanager data, CID, Openreach Manhour Rate (sourced from ORBIT)	
PDTURSFI	All	Dropwire repair Underground Cable	
		<u>Description</u>	
		This base apportions repair costs for drop wires (CoW UR).	
		<u>Methodology</u>	
		The costs for this base are allocated to PG122M Residential PSTN	
		Maintenance.	
PDTWDM21	ALL	Wavelength Division Multiplexor transmission equipment used in 21CN (Ciena)	
		<u>Description</u>	
		This base apportions cost and balance sheet for the transmission equipment of the WDMSAN chains, the METRO – CORE and CORE – CORE transmission electronic equipment, to Plant Groups (PGs).	
		BT's strategic equipment suppliers for 21CN have been chosen across each of five (access, metro, core, i-nodes and transmissions) strategic domains. Ciena is one of these suppliers.	
		The recipients are:	
		 PG866A Core-Core Link PG865A Core-Core Length PG868A Core-Core WBMC Dedicated PG886A Metro-Core Link PG885A Metro-Core Length PG899A WDM-Metro Link PG900A WDM-Metro Length 	
		<u>Methodology</u>	
		The WDM equipment contains functionality for the transport of connectivity, voice and broadband services over the WDM chains and the METRO/CORE layer nodes.	

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		We model 21CN CoW depreciation by a more detailed network element split than is on BT's general ledger, allowing us to allocate 21CN assets into detailed PGs. The model provides estimates of capital spend on a year by year basis, from which the annual depreciation for each network element is calculated and reconciled back to the LoP list at P6. The depreciation charge is calculated over the asset life of the network element. Each network element is mapped to a PG with the total depreciation charge relating to that PG driving the apportionment within the base.
		<u>Data Source/s</u>
		CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life).
PDTWYL	Q	Wayleaves
		<u>Description</u>
		This base contains costs associated with wayleaves and apportions it between two plant groups, PG101d (duct infrastructure) and PG200P (poles capital expenditure)
		<u>Methodology</u>
		The apportionment of costs between the two plant groups is based upon a random selection of 50 sample wayleave invoices within the year. These invoices were analysed to identify the proportion of them which related to duct and poles.
		<u>Data Source/s</u>
		Wayleave invoices.
PROPSALE	Q	Property Sales Proceeds
		<u>Description</u>
		This base apportions the profits and losses from the sales of land and buildings.
		<u>Methodology</u>
		The proceeds from the sale of land and buildings are held in the F8 code:
		Profit / Loss on Disposal of land & Bldg - F8 209927
		A breakdown of the proceeds by building and amount is provided by Group Property Finance and this enables the total proceeds to be attributed to the four Group Property Activity Groups (AG170-173). This enables the sales proceeds to be attributed in the same way as the underlying property costs.
		<u>Data Source/s</u>
		CostPerform reports for the balance on F8 209927.
		Report from Group Property Finance showing sales proceeds by building and value.
REVDTAT011		External RBS Revenue
		<u>Description</u>
		This base apportions contracts revenue to external RBS products.
		<u>Methodology</u>
		The percentage to apportion is calculated by considering the proportion of RBS external revenue held within PPC External Revenue F066850.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
SLGALL	All	Service Level Guarantee scheme (SLG)
		<u>Description</u>
		This base apportions revenue and costs associated with Service Level Guarantee compensation payments for provision and repair failures associated Openreach Services.
		The Service Level Guarantee scheme (SLG) pays compensation to customers if Openreach fails to meet agreed timescales for Provision or Repair activities.
		<u>Methodology</u>
		Costs for SLGs are held a number of SLG F8 and general ledger codes.
		The costs are allocated as follows: A percentage split between provision/repair activities for each product area based on Openreach operational SLG data. These allocations are then further split by internal/external services using revenue analysis from the Openreach ARC revenue analysis tool.
		 PG607B (SLG Provision WLR Int) PG611B (SLG WLR Assurance Int) PG605B (SLG Ethernet Provision Int) PG606B (SLG Ethernet Assurance Int) PG601B (SLG Ethernet Provision) PG602B (SLG Ethernet Assurance) PG603B (SLG WLR Provision Ext) PG604B (SLG WLR Assurance Ext) PG590B (SLG WLA Ext) PG591B (SLG WLA Int)
		Data Source/s
		The compensation payment report is produced by the Openreach SLG Compensation team and reports all provision and repair SLGs payments, by market, made in the year.
SOFTCAP	All B OUCs	Software Capitalisation Entries
		<u>Description</u>
		The SOFTCAP base apportions software capitalisation entries on the Profit and Loss and Balance Sheet relating to Openreach OUCs.
		<u>Methodology</u>
		SOFTCAP for Openreach allocates costs to AG410 – Openreach PAC.
		<u>Data Source/s</u>
		CFU (Customer-Facing Unit) development base.
		Openreach development project data.
		Capital Expenditure details (cumulative total) - supplied by CFU finance analysts.
		CostPerform P12 Organisational Unit Code (OUC) pay & fixed asset downloads.
SOFTCAP	С	Software Capitalisation Entries
		<u>Description</u>
		The SOFTCAP base apportions software capitalisation entries on the Profit and Loss and Balance Sheet relating to Group Organisational Unit Codes (OUCs).
		<u>Methodology</u>
		SOFTCAP uses the current year software capitalisation costs.

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		The capitalisation costs for OUC C are allocated 100% to AG118 (BT Group PAC – including Overseas).
SOFTDEP	All B OUCs	Description The SOFTDEP base apportions software depreciation costs. Profit and Loss and Balance Sheet (Fixed Asset Accumulated Depreciation) relating to Openreach Organisational Unit Codes (OUCs). Methodology SOFTDEP uses the current depreciation figures extracted from the fixed asset register for Openreach and for Classes of Work COMPG (Externally purchased software) and COMPS (Internally developed software). Each line contains entries that can, for the majority, be mapped to a product range using current depreciation to provide the allocation. Where necessary a further allocation to Plant Groups is required for example, Openreach volumes are used to allocate PIA to duct and poles plant groups and Service Management Centre entries from the FAR etc. then the appropriate base to allocate to plant groups. Where non-specific entries are identified from the FAR then the allocation is to AG410 Previously Allocated Pay (PAC). This base apportions costs to various AGs and PGs, primarily PG773A (Ethernet Systems Development), PG570B (OR Service Centre Provision Analogue/ISDN2), PG572B (OR Service Centre Provision LLU), AG410 (Openreach PAC), PG197A (FTTC Service Delivery & Development) and PG198A (FTTP Development), PG101D (Duct Infrastructure), and PG200P (Poles Capex). Data Source/s • Fixed Asset Register software data for Period 12. Management believe this period to be reflective of the full year. • Openreach Volume
SOFTDEP	All C OUCs	Description The SOFTDEP base apportions software depreciation Profit and Loss and Balance Sheet (Fixed Asset Accumulated Depreciation) for BT Group Organisational Unit Code C for Classes of Work COMPG (Externally purchased software) and COMPS (Internally developed software). Methodology SOFTDEP uses the current year's depreciation figures. This base apportions costs 100% to AG118 (BT Group PAC – including Overseas).
TSOSOFTDEP	AllT	Software Depreciation
	OUCs	<u>Description</u>
		The SOFTDEP base apportions software depreciation costs. Profit and Loss and Balance Sheet (Fixed Asset Accumulated Depreciation) relating to BT Technology, Service & Operations (Technology) Organisational Unit Codes (OUCs).
		<u>Methodology</u>

Base Ref	ouc	Descriptions (For all descriptions below, see Appendix A for Key Destinations)
		SOFTDEP uses the current year's depreciation figures extracted from the fixed asset register for Technology and for Classes of Work COMPG (Externally purchased software) and COMPS (Internally developed software).
		Each line contains entries that can be mapped to a product range, Customer-Facing Unit (CFU), core network infrastructure or support. Where necessary a further allocation to Plant Groups is required, e.g. 21CN entries from the FAR, and in which case the CFU Development sub base is used. CFU-specific entries allocate to CFU-specific P codes or Activity Groups. Where non-specific entries are identified from the FAR, the allocation is to AG102 for core network infrastructure or AG119 for Technology support functions.
		 Data Source/s CFU (Customer-Facing Unit) development base; Fixed Asset Register software data for Period 12; Management believe this period to be reflective of the full year; CostPerform P12 Organisational Unit Code (OUC) pay & fixed asset downloads.

7.3 OUC driven bases – Rule Type 3 bases

7.3.1 Introduction

Each Customer-Facing Unit (CFU) or Corporate Unit (CU) in BT has its own organisational unit code (OUC) to which its revenues, costs, assets and liabilities are booked on BT's general ledger. The top level codes for each unit are referred to as Divisions, and are detailed below.

For some Divisions there is a consistent and straight forward attribution treatment of the OUC at either a first or a lower level OUC. Where this is the case the attribution process has been detailed below.

In instances where most of an OUC's cost/income (at a high level, i.e. 1 or 2 digits) are attributed in a certain way the treatment will be detailed below and it will be indicated that for lower level OUCs the relevant base dictionary will contain the methodology for the attribution of the exceptional costs/income. For example OUC C attributes costs/income to the Activity Group AG118 'BT Group PAC – including Overseas', however an exception to this is that OUC CS (a sub-OUC of C) attributes costs onwards to various Plant Groups and Residual products – the methodology for which can be found below in the OUC-driven base methodology dictionary.

7.3.2 Detail for each CFU and CU's OUC-driven bases

This section details, for each Division, how the OUC-driven bases operate and to which lower-level OUCs they are applied.

7.3.3 Openreach (OUC B)

ouc	OUC Description	Methodology
В	Openreach	Costs are not product-specific and so are attributed 100% to AG410, Openreach PAC.
ВА	Learning and Development The Openreach Learning and Development team is part of the Openreach HR team and is responsible for designing and delivering training and development programmes for all Openreach staff.	Allocated using the Openreach Learning and Development methodology, which attributes costs as follows: (a) costs are attributed pro-rata to Openreach OUCs on the basis of the number of learner days provided by the Openreach learning and development team in the current Financial Year, the information is held on the Enterprise Learning Management System. (b) costs are attributed within the Openreach OUCs referred to in paragraph a) pro-rata to each cost category (e.g. activity group, plant group, Rest of BT Residual) which has received an allocation of Openreach pay costs (Current Pay Costs and Capitalised Pay Costs) at the preceding layer of CostPerform. This methodology is predominantly implemented by allocating costs to AG407, Openreach Pay (see AG407 definition for more detail).
BD, BL, BV, BQ	CIO	Costs are not product-specific and so are attributed 100% to AG407, Openreach Pay.
BE	Business Transformation	Costs are 100% apportioned using the Openreach previously allocate costs driver, AG410
BEH1, BP, BR	Sales and Product Management	100% allocation to PG502B, SG&A Openreach Sales Product Management
BET	NGA Assurance	100% allocation to PG579B, OR Service Centre - Assurance NGA
BH	Human Resources	Allocated using Openreach Pay (AG401)
B1, BK	BDUK	Allocated 100% to PG999A (BDUK)
BLH	Copper Recovery This team recover and dispose of unused copper cables from the network. These cables are sold for scrap.	Allocated 100% to PG986R (Openreach Other Activities)
BN	Fibre and Network Delivery	Costs are not product-specific and so are attributed using: • AG407, Openreach Pay

ouc	OUC Description	Methodology
		FTE surveys
BNH2,	Client Relationship	Allocates to PG254B, PG573B
BNH7	Management; Strategic Key	
	and Emerging Partners	
BNH9	Value Add Services	Allocates 100% to PG254B
ВО	Openreach Chief Engineers	Allocated to product specific Provision and Assurance Plant
	Office	Groups using FTE analysis
BVI	Northern Ireland Networks	Allocated using Openreach PAC (AG410)
BVR1	Transformation Programme:	Allocated using Openreach PAC (AG410)
	Service Delivery	
BVL3, BVL5,	Customer Services	Allocated to product specific Provision and Assurance Plant
BVL6, BVL7,		Groups using headcount numbers. Management judgement
BVL8		is applied to the headcount data to estimate the number of
		heads allocated to each plant group relative to the services
		each employee works on.
BY	Openreach Central Costs	Allocated using Openreach Pay (AG401)
BZ, B9	Openreach Adjustments	Allocated using Openreach Pay (AG401)

7.3.4 Group (OUC C)

BT Group costs are made up of a number of central functions that provide various services for BT as a whole. OUC C costs are allocated to AG118 (BT Group PAC – inc. Overseas) unless separately apportioned by other OUC driven base entries, or by specific rule type 1 or 3 allocations.

The specific OUC driven bases not allocated to AG118 are:

ouc	OUC Description	Methodology
CC	Learning Academy	AG116 (BT Factorised Pay inc. Overseas)
СН	Human Resources	BT Group Employees Methodology, either AG115 (exc. Overseas) or AG116 (inc. Overseas). The BT Group Employees Methodology reviews the OUCs cyclically to ensure that AG116 is used for teams that are not specific to BT in the UK, and AG115 for UK specific teams. • CHJ1 (UK-only Deployment) allocates to AG115 • CHR is split between Global (P646, Overseas) and UK-only HR support (AG115) using FTE • All other costs apportion to AG116
CPZ	Corporate Adjustments	Split between AG118 (BT Group PAC – inc. Overseas) and P008 (Rest of BT Residual) based on an assessment of the individual specific projects booked in the year. This ensures items with no relevance to SMP Markets are identified and apportioned to Rest of BT Residual.
CQ	Group NGA	Allocated to PG579B (NGA Service Centre)
CS	BT Billing	Split by CFU/CU using BT Billing internal trades, before being apportioned to service-specific PGs using revenue.

7.3.5 Corporate adjustments (OUC E)

Division E includes one OUC-driven base (for top-level OUC E), which attributes Miscellaneous Corporate Costs and Liabilities to AG118, BT Group PAC. Otherwise, OUC E includes:

• Rule Type 1 attributions to Rest of BT Residual.

7.3.6 BT Facilities Management (OUC F)

Facilities costs are predominantly attributed using one OUC-driven base (at top-level OUC F). This attributes costs to four Property Activity Groups based on their respective weighting of accommodation costs:

- AG170 Specialised Accommodation, BT Owned
- AG171 Specialised Accommodation, Rented
- AG172 Office Accommodation, BT Owned
- AG173 Office Accommodation, Rented

7.3.7 EE (OUC S (2018/19: G))

During the 2018/19 financial year BT reorganised its CFU structure to combine EE and Consumer CFUs. Historically EE would have been reported under GOUC, however for the 2018/19 year end onwards it is SOUC.

All EE costs, assets and liabilities are attributed using Rule Type 1 allocation to Rest of BT Residual, so no OUC-driven bases are used. Costs relating to EE integration incurred in other CFUs/CUs are attributed directly to Rest of BT Residual via a journal.

7.3.8 BT Business & Public Sector (OUC N (2018/19: H))

During the 2018/19 financial year BT reorganised its CFU structure to combine Business and Public Sector and Wholesale and Ventures business units into a new division called Enterprise, with N OUC. Previously OUC-driven bases would have attributed costs to Rest of BT Residual.

7.3.9 Enterprise (OUC N)

BT Enterprise CFU structure is reviewed cyclically to ensure OUC-driven bases attribute costs to relevant destinations based on any movements in organisational structure. Alongside significant Rule Type 1 attributions, OUC costs are apportioned using the following OUC-driven bases:

ouc	OUC Description	Methodology
N	BT Enterprise	Allocated to P008 (Rest of BT Residual)
NL7A, NL7C	Residential	The Labour Costs within OUCs NL7A and NL7C associated with
	Customer Contact	Operator Services are apportioned to PG911A (Operator Services
	Centres (CCC)	OA Inland). The remaining costs in NL are allocated to P008 (Retail Residual)
NLA	BT Fleet	Costs are split between internal (apportioned to AG101, Motor Transport) and external (P008, Rest of BT Residual) using transactional customer data and WILLOW (vehicle operational maintenance system)
NLB	BT Supply Chain	The costs are attributed based on the proportion of work completed for each CFU and CU which is based on the shared service centre's recoveries from each CFU and CU: • Enterprise: allocated to AG406 • Openreach: allocated to AG410 • BT Technology: allocated to AG119 • BT Business and Consumer: allocated to Rest of BT Residual • BT Group: allocated to AG118 • Other costs (such as BT Global Services): allocated to Rest of BT Residual.

7.3.10 Technology (OUC T)

Technology costs that are not attributed using direct (rule type 1) or modelled (rule type 3) apportionments are assigned using OUC-driven bases that either use:

- Fixed base (100% allocation to one Activity Group or Product)
- Apportioned by other OUC driven base entries, or by specific rule type 1 or 3 allocations

Fixed Technology OUC-driven bases:

ouc	OUC Description	Methodology
T	Technology	AG119 (Technology PAC)
TC	Technology Group CE	AG118 (Group PAC)
TD	Technology Intergration	AG402 (Technology)
TE	Technology BT TV	P008 (Rest of BT Residual)
TH	Technology HR	AG402 (Technology Pay)
TL	Technology Mobile Unit	P008 (Rest of BT Residual)
TT	Technology Central	AG118 (Group PAC)
TUC	Licencing	P008 (Rest of BT Residual)

Specific OUC driven bases:

ouc	OUC Description	Most material trades used to calculate base
ТА	IT Platforms	 The costs associated with IT platforms are attributed to specific activities or products Development. IT Support Network Maintenance & Management AG119 (Technology PAC)
TLB	Voice	 The costs associated with the Voice teams are attributed to specific activities or products. The majority of these costs are attributed to P008 (Rest of BT Residual).
TN	Dynamic Infrastructure	 The costs associated with the Dynamic Infrastructure team who support the networks are attributed to specific activities or products Development. IT Support Network Maintenance & Management Engineering Infrastructure Plan & Build AG102 (Technology Operational PAC)
TNK	Dynamic Networks	 Predominantly attributed to AG102 (BT Technology Operational Costs)
TQ	Architecture & Strategy	The costs associated with the Architecture & Strategy are attributed to specific activities or products, predominantly AG118 (BT Group PAC)
TS	Global Infrastructure Services	Predominantly attributed to AG102 (BT Technology Operational Costs)
TU	Research & Innovation	 The costs associated with the Research & Innovations teams are attributed to specific activities or products, predominantly AG118 (BT Group PAC)

The following OUCs are for Chief Information Officers (CIO). Their OUC-driven bases are calculated based on a specific methodologies, where appropriate, but are predominantly allocated to one CFU and CU:

ouc	OUC Description	Most material trades used	Predominantly allocated to
TG	CIO BT Global	Development/ICT	P008 (Rest of BT Residual)
TK	CIO BT Consumer	Development/ICT	P008 (Rest of BT Residual)
TM	CIO BT Group	Development/ICT; IT Support	AG118 (Group PAC)
TR, TW	CIO BT Enterprise	Development/ICT	P008 (Rest of BT Residual)

The internal trades used within the above are explained as follows:

Trade	Description
Development/ICT	These costs relate to software developers and the management of development projects, and include the costs for BT Technology developers and contracted developers, both UK and off-shore. These people book their time directly to projects and the BT Technology billing system includes details of all projects including "volume driven" projects where the CFU/CU orders a specific project and "non-volume" driven costs where BT Technology incur general costs in support system development for that CFU but are not specific to any one project. The apportionment rules for these trades are based on the detailed analysis of in the information recorded in the BT Technology billing data for each CFU: Openreach Openreach development now allocates 100% to AG410BT Enterprise Enterprise now allocates 100% to P008BT Global Services, and BT Consumer • Costs are allocated to Rest of BT Residual BT Group • Costs are allocated to AG118 (BT Group PAC – including Overseas)
Oracle Licence	Oracle software licences are considered to be corporate in nature, and are attributed to AG118 (BT Group PAC – including Overseas).

GSNO	These costs cover the desktop based Operations Centre managing network traffic.	
	It also covers support costs for BT GS Global & UK networks, including architects who	
	manage the network and costs for radio spectrum licences.	
	These costs are attributed to Rest of BT Residual.	
Media & Broadcast	These costs relate to the dedicated teams supporting the Media & Broadcast	
	(including BT Sport), TV and Content portfolio. These costs are all attributed to Rest	
	of BT Residual.	

7.3.11 Security (OUC V)

The BT Security team is situated within BT Global Services. The function is responsible for keeping BT buildings secure, and for protecting BT's networks and systems from outside interference.

Costs include those for BT staff, and subcontracted security costs.

BT Security recovers its costs from CFUs/CUs via internal trades. The traded values are supported by an analysis of costs by activity and customer. We categorise activities and customers and relate them to activity groups or Rest of BT Residual products and use this categorisation to determine the cost apportionment.

Rule Type 1 and 3 apportionments are used for OUC V (Rule Type 3 includes SOFTDEP and SOFTCAP modelled attributions for software assets), alongside the following OUC-driven exception bases:

ouc	OUC Description	Methodology
VA, VB, VC, VE, VF, VI,	Residual Security OUCs	100% to P008 (Rest of BT Residual)
VT, VR, VU, VL, VN, VP		
V	All other BT Security	100% to AG118 (BT Group PAC – including
	OUCs	Overseas)

7.3.12 Property (OUC W)

BT Group Property is responsible for all aspects of real estate management in the UK and worldwide. This includes property strategy, real estate transactions, workplace management and utilisation, property and Cumulo rates management, as well as property cost transformation activities.

Before utilising OUC-driven bases, costs and MCE for this Corporate Unit (CU) are attributed as follows:

- The Cumulo rates bill is attributed using the base reference CUMNORM to three Plant Groups:
 - PG941A (Cumulo Rates NGA)
 - o PG942A (Cumulo Rates Non BTW)
 - o PG943 (Cumulo Rates Non NGA OR)
- Rule Type 3 bases ACCOMM1 (for costs) and ACCOMMBS (for MCE) apportion other property costs and MCE to:
 - o AG170 Specialised Accommodation, BT-owned
 - AG171 Specialised Accommodation, Rented
 - o AG172 Office Accommodation, BT-owned
 - o AG173 Office Accommodation, Rented
- Profits and losses realised on the sale of fixed assets are apportioned on the same basis as the costs and MCE for that property type and ownership (i.e. BT or Telereal) using PROPSALE Rule Type 3 base.

Costs and MCE not apportioned by the above rules are subject to the following OUC-driven bases:

ouc	OUC Description	Methodology
WP	Group Property Portfolio	Costs are apportioned in line with ACCOMM1 base explained above, to the following destinations: • AG170 – Specialised Accommodation, BT-owned • AG171 – Specialised Accommodation, Rented • AG172 – Office Accommodation, BT-owned • AG173 – Office Accommodation, Rented
W	All other Property OUCs	Costs are allocated to AG118 (BT Group PAC)

7.3.13 Group Procurement (OUC Y)

Group Procurement's CFU structure is reviewed cyclically to ensure OUC-driven bases attribute costs to relevant destinations (either Rest of BT Residual or Activity Groups) based on the CFU that each OUC is supporting.

ouc	CFU supported by Group Procurement	Methodology
YF	BT Business & Public Sector	P008 (Rest of BT Residual)
YG	BT Consumer	P008 (Rest of BT Residual)
YK	Openreach	AG410 (Openreach PAC)
YKD	BT Enterprise	P008 (Rest of BT Residual)
YO	Global	P008 (Rest of BT Residual
YW	BT Technology	AG102 (BT Technology Operational Costs)
Υ	All other Procurement OUCs	Costs are allocated to AG118 (BT Group PAC)

7.3.14 Group Consolidation Units (OUC Z)

Accounting adjustments assigned to OUC Z do not use OUC-driven bases, except for:

ouc	OUC Description	Methodology
Z	Liquid funds	Allocates 100% to AG118

8 Transfer charges

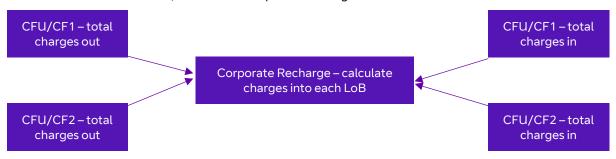
8.1 Introduction to transfer charging

Transfer charges occur in two ways:

- Where there are internal trades between CFUs and CUs (Customer-Facing Units and Corporate Units); and
- Where there are internal trades between CFUs/CUs and BT Groups 'Corporate Recharge' mechanism

The accounting for transfer charges has two sides: transfers in and transfers out.

The treatment between CFUs/CUs and the corporate recharge mechanism is as follows:



The CFUs/CUs 'transfer out' their total internal charges into a centralised 'Corporate Recharge' held within BT Group. BT Group calculates the associated 'transfer in' that is recharged to each CFU/CU.

A transfer out is the charge received by the CFU/CU providing the service and this is accounted for in that CFU/CU as a credit to costs under an F8 code starting with "28" e.g. 284682 "Corporate Overhead Recharge Out".

A transfer in is the charge paid by the CFU/CU receiving the service and is accounted for in that CFU/CU as a debit to costs under a matching F8 code starting with "24" e.g. 244682 "Corporate Overhead Recharge In".

In most cases the transfers in and transfers out are matched within cost centres and do not affect the Regulatory Financial Reporting in any meaningful way.

The Attribution of Transfers In

Since the attribution of these costs do not normally affect the Regulatory Financial Reporting we have simply attributed the costs to Rest of BT Residual and not attempted assessing the cost drivers that would be required to attribute them to activity groups and plant groups. The exceptions to this rule are:

(i) Transfer Charges from Group Fleet Services

The processing of the transfer charges from Group Fleet Services form an integral part of our attribution methodology for AG101 (Motor Transport). In order to attribute these costs rather than focus on the specific nature of the costs within the activity group we focus instead on how each CFU uses the services provided by Group Fleet Services.

The process works as follows:

- Step 1 Group Fleet Services manage the fleet contract with external parties and are billed directly by them. These costs are attributed to Activity Group AG101
- Step 2 Group Fleet Services recharge CFU/CU A for the fleet costs relating to their use of leased vehicles.
- Step 3 We attribute the "transfer in" paid by CFU/CU A to PGs using an attribution rule that reflects how it uses vehicular services provided via Group Fleet Services.
- Step 4 CostPerform creates a system generated base to attribute the "transfer out" received by Group Fleet Services to the same PGs as the "transfers in" for CFU/CU A so that they both net to nil.
- Step 5 CostPerform creates a system generated base to attribute Activity Group AG101 to PGs in proportion to the "transfers out" received by Group Fleet Services.

(ii) Transfers charges that do not net to zero within the SMP Markets

In some cases our attributions of transfers in and transfers out are not attributed in the same way and do not net to nil in reported Markets. We do this for one of two reasons:

- 1. The charge has been received is from a non-core unit. In these cases CostPerform does not have a detailed view of the underlying costs in the charging unit but we believe that the transfer-in represents an appropriate estimate of the relevant costs.
- 2. The charge relates to an externally available service provided for internal use in which case the charges are shown at standard prices. In these cases, we consider the prices to be an appropriate estimate of the costs e.g. the provision of BT Conferencing services. In these instances, the transfer out is recorded on a "29" F8 code rather than a "28" code to prevent the transfer out automatically being attributed to the same destination as the transfer in (see below for an explanation of the automated treatment of "28" F8 codes).

We specify which trades do not net to nil within section 8.2.

The Attribution of Transfers Out

As explained above each transfer between CFUs/CUs has two matching F8 codes: a transfer in starting with "24" and a transfer out starting with "28". We normally attribute the transfer out using a system generated base called Rule Type 28 whereby the system apportions the costs of the transfers out in proportion to how the transfers in have already been attributed to activity groups and plant groups. In this way the transfers in and transfers out net off to nil at each stage in our attribution process. There exceptions to this treatment are:

(i) Transfers charges that do not net to zero within the SMP Markets

Where we do not treat the transfers in and transfers out in the same way, for one of the reasons explained above, we attribute the transfers out to Rest of BT Residual. In this way the relevant transfers in remain unmatched in each stage of the attribution process.

(ii) Transfer charges between core units and non-core units

Transfer charges in and transfer charges out all net to zero in total. However, in the case of transfer charges between CFU/CUs on our core ledgers and business units on our non-core ledger, we are unable to match the charges in and charges out for each specific trade. This is because the non-core ledger is at a lower level of granularity and all transfer charges from Core CFU/CUs are reported under the F8 code 772030 (Direct Transfer Charges In – Other). Therefore, CostPerform appears to show in balance between transfer out and transfer in for these trades i.e. the transfers out are greater than the transfer in.

In these cases the Rule Type 28 matches the transfers out with all the core ledger transfers in and the remaining balance is attributed to Rest of BT Residual. The Rest of BT Residual balance is held in CostPerform on a dedicated transfer out product code, P429 28.

8.2 Transfer charges – charges which do not net to nil within the SMP Markets

For all transfer charges with values above £1m, where the transfers in do not equal the transfers out, we have provided below a brief analysis of the reasons for this. The ledger feed includes these charges so that we can reconcile the RFS back to our management and statutory accounts by ensuring that all F8 codes have been processed.

Openreach

F8 code	Explanation
244727	BT Cables subsidiary recharge Openreach the profit or loss on copper sales. However, a matching capitalisation within Openreach on a separate GL moves this to capex.
249015	This is a charge from Global Services (a non-core unit) for the provision of service for an EAD 'element management platform' that Openreach use to manage their EAD network.

Group overheads

F8 code	Explanation
244648	This trade is from BT Consumer to BT Group at external prices for the discounted broadband lines which employees are entitled to receive. Because this charge relates to an externally available service provided for internal use, the offsetting transfer out is recorded on F8 code 294648.
240755	This is a charge from Global Services (a non-core unit) to BT Group Finance for the salary and operating costs of our offshore finance teams.

Multiple CFUs/CUs

F8 code	Explanation
244345	This is a trade from Global Services (a non-core unit) to BT Technology for the salary and operating costs of our offshore IT development teams.
246705	These are charges from Global Services (a non-core unit) to CFU/CUs relating to media and broadcast contracts. For BT Group, BT Security and BT Procurement, the costs follow OUC-driven bases.

8.3 Transfer charges as a basis for cost attribution

A number of the individual methodology/base descriptions set out in Section 7 Apportionment Models refer to the use of an 'internal transfer charge destination' as the basis for attribution of the actual cost underlying the transfer charge, within the AS process. This section explains the rationale for using this basis.

The purpose of transfer charging is to:

- Enable customer-facing units, which are responsible for their own profitability, to receive a correct allocation of income and expenditure.
- Enable support functions to charge for their services to other group units.
- Enable control to be exercised over the use of key resources.
- Maintain proper control in accounting units of certain balance sheet items.

There is a well-established process for the recording of transfer charges between organisational units, and for the monitoring and control by each unit to ensure that the amount of the charge is properly stated in accordance with the transfer charge agreement, and that the amounts are recorded in the correct organisational unit.

Within the AS process, the transfer charge amounts recorded by each unit are replaced with the actual cost underlying the charge, and for which the charge is made. The actual cost is then attributed, consistent with the treatment of the transfer charge. This occurs principally in respect of the following types of cost and is attributed on a cost-causal basis:

- Motor transport charged based on the number and types of vehicles used by each CFU/CF.
- Computing charged on a monthly fixed charge, taking account of variations in volumes e.g. a reduction in volumes will result in lower charges.

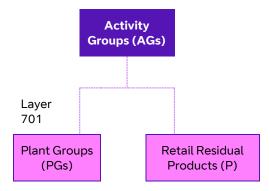
9 Activity Groups

9.1 Introduction to Activity Groups

Activity Groups are one of the five main categories of costs we use in the production of the RFS. Activity Groups are used to attribute onwards the costs and asset values of support functions (e.g. Duct, Motor Vehicles, Group Property and Facilities Management).

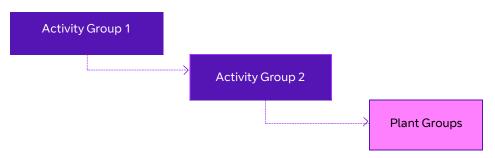
We attribute the costs of all Activity Groups into Plant Groups or Residual products. The attribution process takes place at Layer 701 within CostPerform (see below diagram – full diagram shown and explained in Section 2 System Overview).

Illustration of CostPerform processing Layer 701



In this process some AGs are exhausted to remaining AGs prior to the ultimate attribution of costs onto either PGs or Residual products. A simplification of this process is illustrated below.

Illustration of Activity Group attribution



The following section is a dictionary of all Activity Groups and the methodologies which they use to attribute costs onwards.

9.2 Activity Group dictionary

Base **Detailed Description AG101 Motor Transport Description** Group Fleet Services manage the third-party contract that provides motor vehicles, and associated products and services, to employees within BT. They then recharge other BT units for fleet costs such as fuel, maintenance and repair. Motor vehicles are leased assets under IFRS 16 and associated costs and MCE are recognised in this AG. <u>Methodology</u> This is a system generated AG. Since the activity of this AG relates to the provision of motor vehicles and associated services to the whole of BT, F8 codes which directly relate to this activity should be apportioned directly to this AG. This base performs this process by creating a direct allocation to AG101 for these F8 codes. The apportionment of Motor Transport costs is made using an analysis of the activity of units receiving the transfer charge from Group Fleet Services. The billing detail from the third party holds details of every vehicle, the cost and the 'owner' (Organisational Unit Code - OUC) of the driver using each vehicle. Group Fleet Services use this detail to recharge costs internally via Titan to the CFUs/CUs. It follows that the activities of the units being charged, weighted by the amounts each are being charged by Fleet Management, provide an appropriate base to apply to the costs that have been allocated to AG101. This result is produced automatically by the Regulatory Accounting system using the apportionment of the 'transfer out' (F8 code 28xxxx) charges in Motor Transport and apportioned on the same basis. This is appropriate as the underlying recharges are based on the activities of the units receiving the charges. **AG102 BT Technology Operational Costs** Description AG102 is used to apportion BT Technology's common network management costs and balance sheet values, which cannot be allocated directly to individual Customer-Facing Units (CFUs) and Corporate Units (CUs). F8 codes which directly relate to these activities are allocated to this AG. **Apportionment** This is a system generated AG. The CostPerform system uses the following values to generate an apportionment allocation: Net book value of Core fixed assets, excluding the following fixed asset classes: Copper; Duct, Fibre, Core Transmission; Land and Buildings; Vehicles; Office Machines; and Materials Awaiting Installation. These asset classes are excluded because a separate attribution methodology exists for them. CostPerform identifies the destinations (e.g. PGs or retail products) which the core fixed asset costs relate to and attributes the costs in this AG to the same destinations, in proportion to the already attributed core fixed asset costs. This apportionment best represents the use of the common network management costs and assets across the business. The apportionment base is then applied to the amounts contained within AG102. **AG113 Liquid Funds and Interest Description** The AG113 Activity Group apportions all liquid fund transactions, defined as Net Short-term Interest Payable (Profit and Loss) and Short-term Cash, Short-term Investments (both internal and third party), and Short-term Borrowings.

Base **Detailed Description** Methodology This is a system generated AG. The apportionment is driven by cash costs, which are defined for these purposes as total current account costs and capital account expenditure. We attribute costs from AG113 to other activity groups, plant groups and retail products in proportion to previously allocated costs and capital expenditure. **AG115** BT Factorised Pay - Excluding Overseas (P646) Description AG115 is used to apportion BT Group pay costs where the specific Business unit only supports UK operations, for example HR costs. F8 codes which directly relate to these activities are allocated to this AG. Methodology This is a system generated AG, its apportionment is based on factorised current salary and capital salary costs. The costs allocated to AG115 relate to HR type costs. The purpose of these activities is generally seen as being two-fold: • Management of the employees within the company. • Management of the assets of the company to create a return. The base to apportion these costs must reflect these activities if it is to reflect cost causality. The CostPerform system is given instruction to take the following costs to generate an apportionment allocation: Factorised salary. The AG115 base draws on the result of the previously attributed pay costs within the CostPerform system following the base reference stage. The final base apportionment excludes subsidiaries and associates as these are overseas activities and the AG115 costs are being attributed solely to UK activities. **AG116** BT Factorised Pay - Including Overseas (P646) **Description** AG116 is used to apportion BT Group pay costs where the specific Business unit supports UK and Overseas operations. F8 codes which directly relate to these activities are allocated to this AG. Methodology This is a system generated AG, its apportionment is based on factorised current salary and capital salary costs. The costs allocated to AG116 relate to specific business unit costs. The purpose of these activities is generally seen as being two-fold: • Management of the employees within the company. The base to apportion these costs must reflect these activities if it is to reflect cost causality. The CostPerform system is given instruction to take the following costs to generate an apportionment allocation: Factorised salary. The AG116 base draws on the result of the previously attributed pay costs within the CostPerform system following the base reference stage. The final base apportionment includes subsidiaries and associates as these are overseas activities.

Base **Detailed Description AG117** BT Group PAC - Excluding Overseas (P646) Description AG117 is used to apportion BT Group costs where specific Business units support UK operations. F8 codes which directly relate to these activities are allocated to this AG. Methodology This is a system generated AG, its apportionment is based on previously allocated costs relating to specific OUC/Business units, plus a return on assets, PAC is defined as follows: Current Pay, Non-Pay Costs, Current Depreciation on BT Group Fixed Assets and Return on Capital Employed associated with total BT Group Assets and BT Group Net Current Assets. The AG117 base draws on the result of the previously allocated costs within the CostPerform system following the base reference stage. The final base apportionment excludes overseas activities. **AG118** BT Group PAC - Including Overseas (P646) Description AG118 is used to apportion BT Group costs where specific Business units support UK and Overseas operations. F8 codes which directly relate to these activities are allocated to this AG. Methodology This is a system generated AG, its apportionment is based on previously allocated costs relating to specific OUC/ Business units, plus a return on assets, PAC is defined as follows: Current pay, Non-Pay Costs, Current Depreciation on BT Group Fixed Assets and Return on Capital Employed associated with total BT Group Assets and BT Group Net Current Assets. The AG118 base draws on the result of the previously allocated costs within the CostPerform system following the base reference stage. The final base apportionment includes overseas activities. **AG119 Technology PAC Description** AG119 is used to apportion BT Technology's overall support functions costs and balance sheets values, such as the BT Technology Finance team and BT Technology Strategy function. F8 codes which directly relate to these activities are allocated to this AG. **Apportionment** This is a system generated AG which generates its apportionment based on direct pay and return on assets which BT Technology directly manages. The costs allocated to AG119 relate to BT Technology's overall support function expenses, e.g. The Finance function, and the Technology Strategy team. The purpose of these Technology support function activities is generally seen as being two-fold: • Management of the employees within BT Technology. Management of those assets managed by BT Technology to create a return. The AG119 base draws on the result of previously allocated cost (PAC) within the CostPerform system following the base reference stage. PAC is defined as follows: Current pay, Non-Pay Costs, Current Depreciation on BT Group Fixed Assets and Return on Capital Employed associated with total BT Group Assets and BT Group Net Current Assets.

Base **Detailed Description AG170 Specialised Accommodation BT Owned** AG170 is used to capture BT Group Property depreciation, other operating costs and asset values for the Specialised estate which is BT owned. This is a base driven AG. AG170 is a base produced from an apportionment model. The costs are from a Building List report received annually at Period 9 from Group Property Finance which shows the accommodation transfer charges by building, the building type, CFU and whether BT owned or Telereal. The depreciation and MCE are from a Building Fixed Assets Report supplied by Group Property Finance which shows the Fixed Asset data by building. Using this data, the amount of depreciation, other operating costs and MCE relevant for this AG are identified and attributed. These amounts then follow specific treatments dependent on CFU for onward apportionment to other AGs and Plant Groups. **AG171 Specialised Accommodation Rented (Telereal)** Description AG171 is used to capture BT Group Property depreciation, other operating costs and asset values for the Specialised estate which are rented from Telereal. This is a base driven AG. Methodology AG171 is a base produced from an apportionment model. The costs are from a Building List report received annually at Period 9 from Group Property Finance which shows the accommodation transfer charges by building, the building type, CFU and whether BT owned or Telereal. The depreciation and MCE are from a Building Fixed Assets Report supplied by Group Property finance which shows the Fixed Asset data by building. Using this data, the amount of depreciation, other operating costs and MCE relevant for this AG are identified and attributed. These amounts then follow specific treatments dependent on CFU for onward apportionment to other AGs and Plant Groups. **AG172** Office Accommodation BT Owned Description AG172 is used to capture BT Group Property depreciation, other operating costs and asset values for Office accommodation which is BT owned. This is a base driven AG. AG172 is a base produced from an apportionment model. The costs are from a Building List report received annually at Period 9 from Group Property Finance which shows the accommodation transfer charges by building, the building type, CFU and whether BT owned or Telereal. The depreciation and MCE are from a Building Fixed Assets Report supplied by Group Property Finance which shows the Fixed Asset data by building. Using this data, the amount of depreciation, other operating costs and MCE relevant for this AG are identified and attributed. These amounts then follow specific treatments dependent on CFU for onward apportionment to other AGs and Plant Groups. **AG173** Office Accommodation Rented (Telereal) <u>Description</u> AG173 is used to capture BT Group Property costs, depreciation and asset values for the Office accommodation which is rented from Telereal. This is a base driven AG. <u>Methodology</u> AG173 is a base produced from an apportionment model. The costs are from a Building List report received annually at Period 9 from Group Property Finance which shows the accommodation transfer charges by building, the building type, CFU and whether BT owned

Base Detailed Description or Telereal. The depreciation and MCE are from a Building Fixed Assets Report supplied by Group Property Finance which shows the Fixed Asset data by building. Using this data, the amount of depreciation, other operating costs and MCE relevant for this AC are identified and attributed. These are unto the professor are property for the property of the professor and are property for the professor and are property for the professor are property for the professor and professor are professor.

AG are identified and attributed. These amounts then follow specific treatments dependent on CFU for onward apportionment to other AGs and Plant Groups.

For AG401, AG402, AG406, AG407, and AG410, we apply a similar methodology to calculate

AG401, AG402, AG406, AG407, AG410

For AG401, AG402, AG406, AG407 and AG410 we apply a similar methodology to calculate the onwards attribution of costs.

The costs and assets in each AG are indirect costs that we require to be attributed to plants group is proportion to the pay, asset values and or cost of capital of a specific CFU/CU or other organisational unit.

We have set up a series of AGs which we use to attribute indirect costs onwards to what we believe is the most appropriate destination. Each of the AGs uses the attribution destinations and associated attribution percentages of a particular set of direct costs as the basis for attributing the indirect costs. We identify which indirect costs we believe should follow a particular path of attribution and use the relevant AG4xx to implement this.

These AGs are all system generated and they are all mechanically the same. The process of attribution for each AG is as follows:

- We identify indirect costs and map these to the AG4xx which we believe to be the best basis for apportionment of the indirect cost e.g. we would map Openreach support pay costs to AG401 to be attributed in the same way as the direct pay costs.
- The CostPerform system identifies the destinations to which the direct costs have been apportioned and the relative percentages of apportionment to these destinations.
- The CostPerform system attributes the total cost held within the AG4xx to the same destinations and using the same percentage of apportionment that has been used for the directly attributed costs.

Example: BT Technology indirect costs

BT Technology provides services which are consumed by CFUs such as Openreach and Enterprise. In doing so we attribute direct costs relating to BT Technology activities to the appropriate CFU/CU using OUC-driven base methodologies.

In order to attribute the indirect costs we use AG4's. When attributing pay support costs of BT Technology we assume that Openreach, Enterprise and other CFU/CUs receive the benefit of the support costs which Technology incur as part of their operations. As these are pay costs we attribute them following the same destinations and using the same weightings as Technology direct pay costs attributed via our direct attribution methodologies.

This is demonstrated in the table below:

PGs to which direct costs have already been attributed	Costs in each PG	Attribution % of Technology support costs to PGs
PG: Openreach	100	100/800 = 12.5%
PG: Enterprise	200	200/800 = 25%
PG: Other CFUs	500	500/800 = 62.5%
Total	800	800/800 = 100%

In this example 12.5% of all Technology pay support costs would be attributed to Openreach PGs, 25% to Enterprise PGs and 62.5% to other CFU PGs.

AG401

Costs apportioned using Openreach pay costs

Description

AG401 captures costs such as Openreach Human Resources, Openreach HQ costs and miscellaneous costs supporting Openreach CFU.

Base	Detailed Description
	Methodology
	AG401 is a system generated base. The CostPerform system is given instructions to take Openreach current and capital pay attributions to generate the apportionment destinations and percentages for the costs in this AG.
	These costs follow the attribution process explained in the AG401-AG410 summary section above.
AG402	Costs apportion using Technology pay costs
	<u>Description</u>
	AG402 captures costs such as miscellaneous expenditure used to support BT Technology such as Human Resource functions, HQ costs and support staff.
	<u>Methodology</u>
	AG402 is a system generated base. The CostPerform system is given instructions to take BT Technology current and capital pay attributions to generate the apportionment destinations and percentages for the costs in this AG.
	These costs follow the attribution process explained in the AG401-AG410 summary section above.
AG406	Costs apportioned using Enterprise pay costs
	<u>Description</u>
	AG406 captures costs such as miscellaneous costs supporting BT Enterprise.
	<u>Methodology</u>
	AG406 is a system generated base. The CostPerform system is given instructions to take BT Enterprise current and capital pay attributions to generate the apportionment destinations and percentages for the costs in this AG.
	These costs follow the attribution process explained in the AG401-AG410 summary section above.
AG407	Costs apportioned using Openreach Operations pay costs
	<u>Description</u>
	AG407 captures costs such as miscellaneous expenditure supporting Openreach Operations Units, including costs associated with specialist vehicles owned by Openreach.
	<u>Methodology</u>
	AG407 is a system generated base. The CostPerform system is given instructions to take Openreach Operations – organisational units BV, BL BN, BQ and BD current and capital pay attributions to generate the apportionment destinations and percentages for the costs in this AG.
	These costs follow the attribution process explained in the AG401-AG410 summary section above.
AG410	Openreach PAC
	AG410 captures costs such as non-specific software depreciation for Openreach.
	<u>Methodology</u>
	AG410 is a system generated base. The costs are allocated based on the Previously Allocated Costs (PAC) methodology. The methodology is defined as:
	(a) Costs are attributed pro-rata to each and every cost category (e.g. activity group, plant group, rest of BT Residual) which has received an allocation of one or more of the following at the preceding level of BT's cost attribution process:
	(i) Openreach Current Pay Costs,

Base **Detailed Description** (ii) Openreach Non-Pay Costs, (iii) Current Cost Depreciation on Openreach Fixed Assets; and iv) Return on Capital Employed associated with total Openreach Fixed Assets and Openreach Net Current Assets at the preceding level of BT's cost attribution process; and (b) The pro-rata attribution to each cost category referred to in paragraph (a) of this definition is calculated by dividing the total cost of: (i) Openreach Current Pay Costs, (ii) Openreach Non-Pay Costs, (iii) Current Cost Depreciation on Openreach Fixed Assets; and (iv) Return on Capital Employed associated with total Openreach Fixed Assets and Openreach Net Current Assets included in that cost category at the preceding level of BT's cost attribution process by the total cost of: i. Openreach Current Pay Costs, ii. Openreach Non-Pay Costs, iii. Current Cost Depreciation on Openreach Fixed Assets and iv. Return on Capital Employed associated with total Openreach Fixed Assets and Openreach Net Current Assets in all cost categories at the preceding level of BT's cost attribution process. **Fleet Fuel AG415** Description This base apportions BT External Payment for Vehicle Fuel. Methodology AG415 is a system generated base. The cost of Motor Transport (MT) vehicle fuel is recovered from the CFU/CUs via the transfer charges to the Organisational Unit Codes (OUCs)/Organisational Units based on the utilisation of the services provided to the OUC. The transfer charges are used to provide an analysis of the fuel in the different parts of BT. The analysis of the transfer charge amounts are used to calculate an overall base that is then applied to the underlying actual costs, which are attributed pro-rata to the transfer charge.

9.3 WACC Percentages

In CostPerform some AGs are system generated, for example AG119 but for CostPerform to calculate the correct WACC a pre-determined list of percentages per entity is required. The information is based on the prior year's cost allocated to each entity. This is reviewed and updated yearly. For illustrative purposes the entities and WACC percentages are included below.

Base	Description	WACC
AG101	Motor Transport	8.30%
AG102	Technology Operational Costs	9.30%
AG113	Liquid Funds and Interest	8.30%
AG115	BT Group Factorised Pay (excl. Overseas subsidiaries)	8.30%
AG116	BT Group Factorised Pay (incl. Overseas Subsidiaries)	8.30%
AG118	BT Group Previously Allocated Costs (incl. Overseas subsidiaries)	8.30%
AG119	Technology Previously Allocated Costs	8.30%
AG170	Specialised Accommodation BT Buildings	8.30%
AG171	Specialised Accommodation Rented Buildings	9.30%

Base	Description	WACC
AG172	Office Space BT Buildings	8.30%
AG173	Office Space Rented Buildings	8.30%
AG401	OR Pay Driver	8.10%
AG402	Technology Pay Driver	8.30%
AG406	WS Pay driver	8.30%
AG407	OR Ops Pay Driver	8.10%
AG410	OR Pay plus % FA driver	8.10%
AG415	Fleet Fuel Driver	8.10%

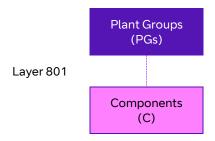
10 Plant Groups

10.1 Introduction to Plant Groups

Plant Groups are one of the five main categories of costs we use in the production of the RFS. Plant Groups are used to attribute onwards the costs and asset values of activities, equipment and infrastructure for the purposes of running and selling network services (e.g. Provision and maintenance activities, MSAN equipment, Copper infrastructure).

We attribute the costs of all Plant Groups to Network Components and Residual products. The attribution process takes place at Layer 801 in our CostPerform system (see diagram below - full diagram shown and explained in Section 2 Business and system overview).

Illustration of CostPerform processing Layer801



Plant Group attributions are determined using apportionment percentages which are calculated externally and input to CostPerform in tables. We use the outputs of various internal systems to determine the weights of apportionment to different Components. Approximately one third of Plant Groups have a direct allocation to Components and the remaining two-thirds use a methodology to apportion costs across multiple Network Components.

For example, the apportionment of costs from Access Fibre Spine (PG111C) is largely based on bearer volume data extracted from the CTCS system. Using this information, BT attributes the cost of PG111C to 9 different components (e.g. ISDN30 access, PC Rentals, Backhaul Extension Services, etc.)

The following section is a dictionary of Plant Groups and the methodologies which they use to attribute costs onwards.

10.2 Plant Group dictionary

Plant Group	Detailed Description and Methodology
PG002X	TISBO Excess Construction Adjustment Debit
	<u>Description</u>
	Excess construction charges (ECCs) are levied when the capital investment required to provide a new connection exceeds a certain amount. In these cases the costs are recovered upfront in an excess construction charge. However the construction costs incurred in providing these new connections are capitalised in the same way for normal network construction i.e. under class of works for fibre and duct. This means that our duct and fibre costs include costs that have already been recovered from the customer as an ECC.
	In order to ensure that these assets are not allocated to other regulated products we raise a journal to move the depreciation and asset values associated with work which has incurred ECCs to this specific PG for ECCs.
	We calculate ECC adjustments for the CISBO Markets, Low TISBO Market and Residual Markets.
	This PG allocates TISBO ECC costs and MCE to balance sheet reserves and hence is not disclosed in the RFS.
	This PG works in tandem with PG002Y (below) which removes costs from a number of TISBO services where ECC depreciation has been incurred.
	<u>Methodology</u>
	This PG allocates costs to balance sheet reserves.
PG002Y	TISBO Excess Construction Adjustment Credit
	<u>Description</u>
	ECCs are described in PG002X above. This PG represents the reverse side of the journal referred to in PG002X.
	<u>Methodology</u>
	This PG allocates costs to CO439 (PC rentals 2Mbps local end fibre) By allocating this credit to CO439 we effectively reverse out the capital expenditure associated with work which has incurred ECCs.
PG003X	CISBO Excess Construction Adjustment Debit
	<u>Description</u>
	This PG contains the capital employed and related depreciation charges arising from the cumulative ECC funded investment for Ethernet (CISBO) services and for time related charges. However it does not include the in year capital expenditure on these investments which are included in the PG006X. ECCs are described in PG002X.
	The capital employed and related depreciation charges for duct and fibre assets are attributed to this PG using a journal calculated from historical investment. The opposite side to this journal is included in PG003Y.
	This PG allocates historic CISBO ECC costs and MCE to balance sheet reserves and hence is not disclosed in the RFS.
	<u>Methodology</u>
	Costs from this PG are allocated balance sheet reserves.
	Data Source/s
	A record of historic investment in ECCs.

Plant Group	Detailed Description and Methodology
PG003Y	CISBO Excess Construction Adjustment Credit
	<u>Description</u>
	This PG represents the reverse side of the journal referred to in PG003X. The purpose of this PG is to reduce the amount of duct and fibre assets that are attributed to CISBO fibre components in order to avoid the double-recovery of assets that were funded by ECC revenues. ECCs are described in PG002X.
	<u>Methodology</u>
	This PG is apportioned to the CISBO fibre and duct components: CW609 (Ethernet Access Direct Fibre), CO450 (Wholesale & LAN extension services fibre) and CO447 (Backhaul extension services fibre). The apportionment is based on the volume of reported services used by each component.
	<u>Data Source/s</u>
	Volumes of reported services.
PG005X	OR Residual ECC Debit
	<u>Description</u>
	Excess construction charges (ECCs) are levied when the capital investment required to provide a new connection exceeds a certain amount. In these cases the costs are recovered upfront in an excess construction charge. However the construction costs incurred in providing these new connections are capitalised in the same way for normal network construction i.e. under class of works for fibre and duct. This means that our duct and copper costs in the case of Residual ECCs include costs that have already been recovered from the customer as an ECC.
	In order to ensure that these assets are not allocated to other regulated products we raise a journal to move the depreciation and asset values associated with work which has incurred ECCs to this specific PG for ECCs.
	This PG allocates Openreach Residual costs and MCE to balance sheet reserves and hence is not disclosed in the RFS.
	This PG works in tandem with PG005Y (below) which removes costs from a number of WLA and WLR services where ECC depreciation has been incurred.
	<u>Methodology</u>
	Costs from this PG are allocated to balance sheet reserves.
PG005Y	Residual Excess Construction Adjust Credit Duct
	<u>Description</u>
	ECCs are described in PG005X above. This PG represents the reverse side of the journal referred to in PG005X.
	<u>Methodology</u>
	This PG is apportioned 100% to the Distribution Side Copper Capital component: CL173.
PG006X	CISBO Excess Construction Capex Debit
	<u>Description</u>
	This PG contains the in-year costs and the consequential indirect costs relating to Excess Construction Charges (ECCs) incurred on Ethernet (CISBO) services within the year
	This PG is populated by a Journal which disaggregates the capital expenditure by class of work and cost type (pay, stores and contract) and then re-classifies all capital expenditure as operating expenses. This disaggregation enables CostPerform to accurately attribute indirect costs to the PG.

Plant Detailed Description and Methodology Group The reverse side of this journal is attributed to PG006Y. The cumulative investment from previous years ECC funded investment in CISBO services is included in PG003Y. The journal is calculated by analysing actual capital investment for new CISBO circuits and apportioning it between ECCs and common network in proportion to ECC activity volumes / total work activity units incurred on those circuits. Methodology Costs from this PG are allocated to CE106 (CISBO Ethernet Excess Construction Capex). Data source/s Actual investment for new circuits - Capital Reporting ECC activity volumes - ECC Calculator Total work activity units for new circuits - NIMS **PG006Y CISBO Excess Construction Capex Credit Description** This PG represents the reverse side of the journal referred to in PG006X. The purpose of this PG is to reduce the amount of duct and fibre assets that are attributed to CISBO fibre components in order to avoid the double-recovery of assets that were funded by ECC revenues. ECCs are described in PG002X. Methodology This PG is apportioned to the CISBO fibre and duct components: CW609 (Ethernet Access Direct Fibre), CO450 (Wholesale & LAN extension services fibre) and CO447 (Backhaul extension services fibre). The apportionment is based on the volume of reported services used by each component. Data Source/s Volumes of reported services. **PG100D Duct RAV** Description This PG represents the RAV valuation of duct. This base allocates the costs relating to the duct asset RAV only. It covers the RAV of all duct (core access and shared) within the BT network. Methodology This PG is apportioned to the following components based on the infrastructure volumes multiplied by the standard unit cost and conversion factors. CZ301 (Spine Duct 1 Internal RAV) CZ302 (Spine Duct 2 Internal RAV) CZ303 (Spine Duct 3 Internal RAV) CZ304 (Manholes Internal RAV) CZ305 (Joint Boxes Internal RAV) CZ306 (Lead ins Internal RAV) CZ307 (Spine Duct 1 External RAV) CZ308 (Spine Duct 2 External RAV) CZ309 (Spine Duct 3 External RAV) CZ310 (Manholes External RAV) CZ311 (Joint Boxes External RAV) CZ312 (Lead ins External RAV) CL171 (E side copper capital)

Plant Group	Detailed Description and Methodology
	<u>Data Source/s</u>
	PIPER internal volumes, Openreach external volumes, standard cost from NIMs and conversion factors based off Ofcom pricing model.
PG101D	Duct Infrastructure
	<u>Description</u>
	This PG includes a proportion of the depreciation and asset values of our duct infrastructure which relates to duct carrying access copper cables and access fibre cables. It also includes a share of:
	 Indirect costs associated with duct including system development costs for NEJ - an inventory system that includes the geographic location of out duct. Costs associated within Wayleaves. Software depreciation related to the provision of PIA services.
	A proportion of GFA relating to the BDUK duct assets. Methodology
	This PG is apportioned to the following components based on the infrastructure volumes multiplied by the standard unit cost and conversion factors.
	 CZ313 (Spine Duct 1 Internal) CZ314 (Spine Duct 2 Internal) CZ315 (Spine Duct 3 Internal) CZ316 (Manholes Internal)
	 CZ317 (Joint Boxes Internal) CZ318 (Lead ins Internal) CZ319 (Spine Duct 1 External)
	 CZ320 (Spine Duct 2 External) CZ321 (Spine Duct 3 External) CZ322 (Manholes External) CZ323 (Lead ins External)
	CZ324 (E side copper capital)
	<u>Data Source/s</u> PIPER internal volumes, Openreach external volumes, standard cost from NIMs and conversion factors based off Ofcom pricing model.
PG111C	Access Fibre Spine
	<u>Description</u>
	Exchange Customer
	Node Distribution Cable
	This plant group includes costs associated with:
	 Assets and depreciation relating to fibre spine cables; Duct used by these cables; and Indirect costs related to the capital expenditure e.g. the van costs incurred by the engineers installing the fibre
	This plant group excludes the access spine fibres used by our Generic Ethernet Access (GEA) products.

Plant Group

Detailed Description and Methodology

Methodology

We apportion this plant group according the number of fibres used by each component. The number of fibres used by each component is derived from the following calculations:

Ethernet Services

Our Ethernet services are delivered using an end-to-end fibre pair or single fibre, so we count the number of local ends and fibres for each component (from our published services), considering usage factors of different circuit type variants such as Standard, LA, RO1, RO2 etc. These are then multiplied by 1 for single fibre working circuits like EAD and by 2 for older legacy services like BES/WES to equalise reported volumes for "equivalent" service volumes. These services use more than two thirds of our non-GEA access fibre and the main components are: CW609 Ethernet Access Direct (EAD) Fibre and CO450 Wholesale & LAN Extension Services (WES) fibre etc.

Traditional Interface Services

Our older traditional services are delivered by first providing bearers and then connecting circuits across them e.g. 4×2 Mbps ASDH bearer is provided by connecting equipment with a fibre pair and this bearer can then carry up to four 2Mbps circuits thus with this technology more than one circuit can ran over the same fibre.

For these products we firstly count the number of different types of bearers and the number of fibres used by each type of bearer. This information is taken from CTCS and the most common bearer types are: single 2Mbps, 4 x 2Mbps ASDH, and 34 Mbps.

Illustrative example of CTCS bearer information:

Total 34Mbits/s Bearers	900
Total access fibres	1,620
Average Fibres per bearer	1.8

Secondly, we use more CTCS data to count the volume of circuit (components) which use each type of bearer which we then convert into the number of bearer equivalents used by each type of circuit. We then multiply the number of bearer equivalents by the average number of fibres per bearer to calculate the total number of fibres used by each circuit.

Illustrative example of calculating the average number of fibre used by each circuit type:

Circuit Types	Total bearers	Maximum Circuits / Bearer	No. of Circuits	Utilised Bearers	Share of Spare Capacity	Bearer Equivalents	Average Fibre per Bearer	Number of Fibres used by Circuit
8 Mbit/s	245	4	600	150	95	245	1.8	441
2 Mbit/s	380	16	2,000	125	255	380	1.8	684
34Mbit/s	900	1	200	200	700	900	1.8	1,620

- Maximum Circuits / Bearer are engineering assumptions
- No. of Circuits is from CTCS
- Utilised Bearers = No, of Circuits / Maximum Circuits per bearer
- Share of spare capacity = Spare Capacity (total bearers utilised bearers) share across the low bandwidth circuits since 34Mbits circuits would not be able to use this capacity.
- Bearer equivalents = Utilised Bearers + Share of spare capacity
- Average Fibres per bearer from CTCS
- Number of fibres used by circuit type (component) = Bearer equivalents x Utilised Bearers
- Traditional services use less than one third of our non GEA access fibre and the main components are: CO439 PC rentals 2Mbps local ends

Data Source/s

Ethernet Services – published service volumes.

Fibre and electronics Usage Factors - COSMOSS and EMP inventory data to identify the A and B ends of circuits, and whether they represent a BT node or end customer site.

Plant Group	Detailed Description and Methodology
Споир	Traditional Interface Services - bearer volumes, access fibre volumes and circuit volumes mapped to bearers are taken from CTCS.
PG111M	Access Fibre Maintenance
	<u>Description</u>
	This PG captures the maintenance costs associated with the local line fibre cable in the access network. The costs included are:
	 The engineering pay costs and stores incurred in repairing access fibres The indirect costs incurred in supporting the engineers e.g. the van costs of the engineers.
	<u>Methodology</u>
	We use the same allocation to components as for PG111C Access Spine Fibre.
PG112C	Network Residual Miscellaneous
	This PG captures the costs of miscellaneous activities involved in the cost of running the network, but which do not form any part of regulated services.
	<u>Methodology</u>
	Costs from this plant group are allocated to CZ600 (BTW Residual).
PG114L	ISDN30 Connections
	<u>Description</u>
	This PG captures the cost associated with the provision, cessation and rearrangement activities of ISDN30 circuits.
	The activities carried out include testing, line up of circuits, updating records, labelling equipment for onward connection and connecting transmission equipment at the specified bit rate.
	This PG includes:
	 Direct pay and stores costs associated with these activities and identified directly from classes of work (CoW). Indirect costs associated with these activities e.g. van costs associated with engineers
	working on these activities.
	<u>Methodology</u>
	Costs from this PG are allocated to CL163 (ISDN30 Connection component). The base is currently frozen.
PG115C	Access Radio Equipment
	<u>Description</u>
	This PG captures the costs associated with the construction, rearrangement and renewal of access radio systems. These systems are used to deliver Megastream and other non-voice services from the local exchange to customers' premises.
	This includes costs associated with:
	 Assets and depreciation relating to access radio equipment, Indirect costs related to the capital expenditure e.g. the van costs incurred by the engineers installing the equipment; and Indirect costs related to the assets themselves e.g. the electricity costs required to run the equipment.

Plant	Detailed Description and Methodology
Group	Detailed Description and Methodology
	<u>Methodology</u>
	This PG apportions costs to circuit components based on the number of times each circuit uses access radio (converted into 2 Mbps equivalents) This information is sourced from our CTCS system which identifies maps circuits (components) across the different parts of our network (plant groups).
	Key apportionments are to CO439 (PC rentals 2Mbps local end fibre), CL189 (ISDN30 access) and CF383 (OR PC rentals 2Mbps link).
	Data Source/s
	CTCS at period 6, which we believe to be reflective of the full year.
PG115M	Access Radio Maintenance
	<u>Description</u>
	This PG captures the maintenance costs of access radio equipment.
	Types of cost include the direct pay costs and stores costs for engineers working on this activity and the indirect costs associated with engineers e.g. the engineers van costs.
	<u>Methodology</u>
	We use the same methodology as we do for apportioning the equipment costs (see PG115C Local Lines Access Radio Capital above).
	<u>Data Source/s</u>
	CTCS at period 6, which we believe to be reflective of the full year.
PG117C	E-Side Copper Cable
	<u>Description</u>
	This PG captures the capital costs associated with E-Side Copper. The Access Network for Regulatory Accounting purposes is split between exchange (E-side) and distribution side (D-Side) copper cable. Types of cost include depreciation, stores and pay costs.
	E-Side cable is the cable that links the local exchange to the primary cross connection point. D-Side cable is the cable that links the primary cross connection point to the Distribution Point (see diagram below).
	PCP Overhead DP
	E Side D Side Underground DP
	Methodology
	Costs from this PG are allocated to the CL171 (E-Side Copper Capital).
PG117M	E-Side Copper Cable Maintenance
	<u>Description</u>
	This PG captures the current costs associated with E-Side Copper. The Access Network for Regulatory Accounting purposes is split between exchange-side (E side) and distribution side (D-Side) copper cable. E-Side cable is the cable that links the local exchange to the primary cross connection point. D-Side cable is the cable that links the primary cross connection point to the Distribution Point (see diagram in PG117C above).
	Types of cost include non-ETG pay and stores.

Plant Group	Detailed Description and Methodology
	<u>Methodology</u>
	Costs from this PG are allocated to the CL172 (E-Side Copper Current).
PG118C	D-Side Copper Cable
	<u>Description</u>
	This PG captures the capital costs associated with D-Side Copper. Types of cost include depreciation, stores and pay costs.
	The Access Network for Regulatory Accounting purposes is split between exchange-side (E side) and distribution side (D-Side) copper cable. E-Side cable links the local exchange to the primary cross connection point. D-Side cable links the primary cross connection point to the Distribution Point (DP).
	PCP Overhead DP
	E Side D Side Underground DP
	Methodology
	Costs from this PG are allocated to CL173 (D-Side Copper Capital).
PG118M	D-Side Copper Cable Maintenance
	<u>Description</u>
	This PG captures the current costs associated with D-Side Copper. Types of cost include non-ETG pay and stores.
	The Access Network is described in PG118C above.
	<u>Methodology</u>
	Costs from this PG are allocated to CL174 (D-Side Copper Current).
PG119A	Telephony Over Passive Optical Network (TPON)
	<u>Description</u>
	This PG captures costs associated with TPON.
	TPON is a technology which uses fibre from the exchange to the street cabinet and copper from the cabinet to the customer. It is now in the process of being removed as it does not support broadband.
	Types of cost include pay (from maintenance of exchange electronics and customer sited electronics), planning and depreciation costs from the provision, rearrangement, replacement and renewal of both exchange service modules and customer sited modules.
	<u>Methodology</u>
	Costs from this PG are allocated to CL173 (D-Side Copper).
PG120B	LLU Electricity Usage – OR
	<u>Description</u>
	This Plant Group (PG) captures the Openreach electricity costs related to Local Loop Unbundling.
	<u>Methodology</u>
	Costs from this plant group are allocated to CL120 (LLU Electricity Usage component).

Plant Group	Detailed Description and Methodology
PG121M	Dropwire Maintenance Business
	<u>Description</u>
	This PG captures the costs associated with the maintenance of Business PSTN, from the distribution point to the customer's premises.
	Types of cost include stores and pay costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL180 (Analogue line drop maintenance).
PG122M	Dropwire Maintenance Residential
	<u>Description</u>
	This PG captures costs associated with the maintenance of Residential PSTN, from the distribution point to the customer's premises. Types of cost include stores and pay costs.
	The distribution point is the point near to a customer's premises where the cable from a Primary Cross connection point (PCP) is split in order to provide service at one or more localised premises. The distribution point could be, for example, be at the top of telegraph pole or under a pedestrian walkway. PCP boxes are the green metal cabinets located by the E-Side of the road.
	<u>Methodology</u>
	Costs from this PG are allocated to CL180 (Analogue line drop maintenance).
PG123M	ISDN2 Maintenance
	<u>Description</u>
	This PG captures the store and pay costs associated with the maintenance of ISDN2, from the distribution point to the customer's premises.
	<u>Methodology</u>
	Costs from this plant group are allocated to CL181 (ISDN2 drop maintenance).
PG124A	ISDN30 Equipment
	<u>Description</u>
	This PG captures the Capital costs of ISDN30.
	Types of cost include depreciation, stores and pay costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL190 (ISDN30 Line Cards).
PG127A	Analogue Linecards
	<u>Description</u>
	This PG captures Profit and Loss (e.g. Depreciation, ETG and Non ETG Pay, and Non-Pay) and Balance Sheet items associated with the provision of analogue line cards.
	Line cards are the electronic cards in the exchange that provide connectivity to the switch.
	<u>Methodology</u>
	Costs from this PG are allocated to CL183 (Analogue Line Cards).
PG128A	ISDN2 Linecards
	<u>Description</u>
	This PG captures the capital costs associated with ISDN2 line cards.

Plant Group	Detailed Description and Methodology
	Line cards are the electronic cards in the exchange that provide connectivity to the switch.
	Types of cost include depreciation, stores and pay costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL184 (ISDN2 Line Cards).
PG129A	Pair Gain Systems
	<u>Description</u>
	This Plant Group contains the cost of provisioning, rearranging and recovering pair gain electronics in the access network.
	Pair gain is a piece of equipment which provides to analogue lines over one pair of copper wires.
	Types of cost include depreciation, stores and pay costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL185 (Pair Gain).
PG130A	Intra-exchange Tie Cables
	<u>Description</u>
	This PG captures costs of tie cables for LLU. LLU enables other communication providers (OCP) to use BT's local loop to provide services to customers. This is delivered by co-mingling, in which BT provides a room in an exchange for an OCP and their equipment, and arranges for connection of the room to the BT Main Distribution Frame (MDF) via a tie cable. The OCP has to order 'ties' in items of 100 pair cables.
	<u>Methodology</u>
	This PG allocates costs 100% to CL133 (WLA Tie cables).
PG132B	LLU Co-mingling Recurring Costs (OR)
	<u>Description</u>
	This PG captures the cost of LLU Hosting Rental. Hosting Rental is the rental of a site for hosting LLU equipment.
	<u>Methodology</u>
	Costs from this PG are allocated to CL132 (Co-mingling rentals).
PG132N	LLU Co-mingling Recurring costs (BT Technology)
	<u>Description</u>
	This PG captures the cost of LLU Hosting Rental. Hosting Rental is the rental of a site for hosting LLU equipment.
	<u>Methodology</u>
	Costs from this PG are allocated to CT134 (Co-mingling power & vent).
PG136A	LLU Co-mingling Surveys
	<u>Description</u>
	This PG captures the costs of carrying out surveys on BT buildings to enable infrastructure such as Cabling, Vent and Chill equipment, access etc for LLU hostels.
	Methodology
	Costs from this PG are allocated to CL131 (Co-mingling set up).

Plant	Detailed Description and Methodology
Group	
PG136N	LLU Co-mingling Provision
	<u>Description</u>
	This PG captures the cost of building the LLU Hostels within BT Exchanges.
	<u>Methodology</u>
	Costs from this PG are allocated to CL131 (Co-mingling set up).
PG139A	LLU Systems Development
	<u>Description</u>
	This PG captures the cost of Research and Development (R&D) projects undertaken by Technology Service & Operations on behalf of Openreach that specifically relate to LLU products. Development projects can range from high-level strategy down to operational and logistical development. Development project costs are apportioned according to the nature of the individual projects.
	<u>Methodology</u>
	We analyse the FAR for CoWs COMPS and COMPG for Openreach LoB. We use the "Asset Description" and "Subgroup Description" fields to ascertain which specific products (of which there are four relevant to Openreach: Local Loop Unbundling (LLU), Wholesale Line Rental (WLR), ISDN or Ethernet) the asset entry in the FAR relates to.
	We apportion costs to four Plant Groups (matching the four products listed above) that relate to the specific products identified in this exercise. We use the proportion of current year depreciation for each asset that relates to a particular product class over total depreciation of all relevant assets to apportion costs to the Plant Groups.
	This PG apportions all costs to CL139 (Local Loop Unbundling systems development).
	Data Source/s
	Fixed Asset Register (FAR) for Class of Work COMPS & COMPG for Openreach.
PG140A	Routing and Records
	<u>Description</u>
	The Plant Group (PG) captures the costs and balance sheet (Depreciation, ETG and Non-ETG Pay and Non-Pay) of Routing and Records work for provision of analogue / ISDN lines, Local Loop Unbundling (LLU) and Fibre based circuits.
	<u>Methodology</u>
	This Plant Group allocates 100% to CL160 (Routing & Records).
PG142A	Main Distribution Frame (MDF) Hardware Jumpering
	<u>Description</u>
	This PG captures the costs and balance sheet associated with jumpering activities on the Main Distribution Frame (MDF) connecting the Exchange switch equipment to the Exchange-Side (E-Side) cable.
	An MDF jumper is a copper connection that provides a flexible connection between two terminal ends, commonly used to connect the line side to the exchange side of the MDF.
	<u>Methodology</u>
	Costs from this PG are allocated to CL161 (MDF Hardware Jumpering).

Plant Group	Detailed Description and Methodology
PG144A	WLR Systems Development
	<u>Description</u>
	This PG captures the cost of Research and Development (R&D) projects undertaken by Technology Service & Operations on behalf of Openreach that specifically relate to WLR products. Development projects can range from high-level strategy down to operational and logistical development. Development project costs are apportioned according to the nature of the individual projects.
	<u>Methodology</u>
	We analyse the FAR for CoWs COMPS and COMPG for Openreach LoB. We use the "Asset Description" and "Subgroup Description" fields to ascertain which specific products (of which there are four relevant to Openreach: Local Loop Unbundling (LLU), Wholesale Line Rental (WLR), ISDN or Ethernet) the asset entry in the FAR relates to.
	We apportion costs to four Plant Groups (matching the four products listed above) that relate to the specific products identified in this exercise. We use the proportion of current year depreciation for each asset that relates to a particular product class over total depreciation of all relevant assets to apportion costs to the Plant Groups.
	This PG apportions all costs to CL144 (Wholesale Access specific).
	<u>Data Source/s</u>
	Fixed Asset Register (FAR) for Class of Work COMPS & COMPG for Openreach.
PG145N	WBA End User NTEs
	<u>Description</u>
	This PG captures the costs associated with the Provision and Installation costs for Asymmetric Digital Subscriber Line (ADSL).
	The classes of work (CoW) associated with this Plant Group are Internally Developed Software (COMPS) and NOP (Network Operations Platform) Circuit Provision - ADSL. These CoWs cover all provision and software activities in serving exchanges and customer site, including end-to-end testing.
	<u>Methodology</u>
	Costs from this PG are allocated to CR118 (ADSL Connections).
PG149A	Analogue Line Final Drop
	<u>Description</u>
	Drop wires are wires connecting the Distribution Point to the customer's premises.
	This PG captures the Drop wire costs associated with specific analogue line based Products.
	Methodology
	Costs from this PG are allocated to CL178 (Dropwire Capital Analogue NTE).
PG150A	ISDN2 Access Equipment
	<u>Description</u>
	This PG captures the Network Terminal Equipment (NTE) costs for ISDN2 rentals. It includes Network Terminal Equipment (NTE) and line cards but excludes drop wire.
	<u>Methodology</u>
	Costs from this PG are allocated to CL186 (ISDN2 NTE).

Plant Group	Detailed Description and Methodology
PG150B	Abortive Visits
FUISOD	Description
	An Abortive Visit Charge (AVC) is applied where an appointment is agreed for work at an End
	User's Site and the engineer arrives within the appointment slot but is unable to carry out the work at, or gain access to, the End User Site.
	This PG captures the Abortive Visit costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL182 (Abortive Visits).
PG151B	Broadband Line Testing Equipment (Openreach)
	<u>Description</u>
	This PG contains the Test Access Management Systems (TAMS) and EvoTAMs costs.
	These are used to provide remote access facilities on Metallic Path Facility (MPF), Shared Metallic Path Facility (SMPF), Wholesale Line Rental (WLR) and IPStream circuits for testing towards the customer and into the network. They are installed between the Main Distribution Frame (MDF) and the Digital Subscriber Line Access Multiplexer (DSLAM).
	<u>Methodology</u>
	The costs in this PG are apportioned using the latest LOP list depreciation figures for CoWs LXTM and LMC. We use the Asset Policy Codes of the equipment, which tell us what type of equipment it is, to determine the depreciation which needs to be apportioned to each component. Assets will relate to MPF or EvoTAM testing systems.
	Costs relating to MPF equipment are apportioned to CF187 (MPF line testing systems). Costs relating to EvoTAM equipment are apportioned to CF189 (EvoTAM testing systems).
	Additional depreciation is apportioned to CF189 to account for installation of EvoTAMS, this depreciation is based on a survey from Openreach which identifies the number of EvoTAM installations in a period.
	<u>Data Source/s</u>
	Latest available Life of Plant (LoP) list, Openreach EvoTAM survey.
PG151N	Broadband Line Testing Equipment (BT Technology)
	<u>Description</u>
	Testing Access Matrices (TAMs) equipment is used in order to carry out accurate diagnostics fault diagnostics on broadband lines. TAMs can connect to the Digital Subscriber Line Access Multiplexers (DSLAMs) to emulate a modem from a customer and identify if a fault is at the customer end or in the exchange.
	This PG captures the Test Access Matrix (TAMS) costs incurred by BT Technology.
	<u>Methodology</u>
	Costs from this PG are allocated to CR187 (Broadband line testing systems).
	Data Source/s
	Latest available Life of Plant (LOP) list.
PG152B	Other Openreach Repairs
	<u>Description</u>
	This PG contains the values relating to the equipment that supports the DSL product rentals. DSL is a family of technologies that provide digital data transmission over the wires of a local

Plant Group	Detailed Description and Methodology
	telephone network. These lines that provide faster Internet access to the customer and also allows telephone calls to be made at the same time as Internet usage.
	This PG contains all the balance sheet values relating to the equipment that supports the DSL product rentals including Digital Subscriber Line Access Multiplexer (DSLAM) equipment. This PG also contains the depreciation and maintenance costs on this equipment as well as overhead type costs such as the accommodation to house equipment etc.
	<u>Methodology</u>
	Costs from this PG are allocated to CO989 (SFI (Special Fault Investigations)).
PG152N	DSLAM – Overheads
	<u>Description</u>
	This PG contains all the balance sheet values relating to the equipment that supports the DSL Product rentals except Digital Subscriber Line Access Multiplexer (DSLAM) equipment itself. This PG also contains the maintenance costs for this equipment as well as overhead type costs such as the accommodation to house equipment etc.
	<u>Methodology</u>
	Costs from this PG are allocated to CR188 (DSLAM support).
PG153N	DSLAM - Equipment
	<u>Description</u>
	This PG contains the balance sheet values relating to the Digital Subscriber Line Access Multiplexer (DSLAM) equipment. This PG also contains the depreciation cost relating to the DSL equipment. It does not include the maintenance costs on this equipment or overhead type costs such as the accommodation to house equipment etc. (This is included in PG152N).
	<u>Methodology</u>
	Costs from this PG are allocated to CL195 (NGA visit assures).
PG154B	NGA Visit Assure
	<u>Description</u>
	This plant group holds the costs and MCE relating to NGA Visit Assure jobs
	<u>Methodology</u>
	Costs from this PG are allocated to CL195 (NGA visit assure).
PG155B	Expedite Provision costs
	<u>Description</u>
	This plant group holds the costs and MCE relating to Expedite Provision jobs
	<u>Methodology</u>
	Costs from this PG are allocated to CL193 (expedite provision costs).
PG166A	WLR Enhanced Care Resource Level 3 and 4
	<u>Description</u>
	This plant group holds the costs and MCE relating to WLR Enhanced Care engineer resource required to support Level 3 and 4 jobs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL166 (WLR Enhanced Care Resource Level 3 and 4).

Plant Group	Detailed Description and Methodology
PG167A	WLA Enhanced Care Resource Level 3 and 4
	<u>Description</u>
	This plant group holds the costs and MCE relating to MPF Enhanced Care engineer resource required to support Level 3 and 4 jobs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL167 (WLR Enhanced Care Resource Level 3 and 4).
PG168A	WLR Enhanced Care Resource Level 2
	<u>Description</u>
	This plant group holds the costs and MCE relating to WLR Enhanced Care engineer resource required to support Level 2 jobs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL168 (WLR Enhanced Care Resource Level 2).
PG169A	WLA Enhanced Care Resource Level 2
	<u>Description</u>
	This plant group holds the costs and MCE relating to MPF Enhanced Care engineer resource required to support Level 2 jobs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL168 (WLA Enhanced Care Resource Level 2).
PG170B	Backhaul Fibre
	<u>Description</u>
	This PG captures the depreciation costs and asset values of the backhaul length elements of the bearers in BT's Core Transmission network.
	Combinations of assets in the transmission network (i.e. two bits of electronics joined by fibre and duct) make up what is known as a "bearer". The bearers within the network carry circuits that relate to different products and bandwidths. More detail can be found CTCS (Core Transmission Costing System) in the Data Sources section.
	<u>Methodology</u>
	The costs and asset values on these PGs are allocated to network components (circuits) based on how the circuits use the different bearers. The relationship between circuits and bearers is held in CTCS. Extracts from CTCS give us the total length of fibre used by the circuits over each bearer. Fibre lengths for Ethernet and WLA main links are not captured in CTCS but need to pick up some of the costs of backhaul fibre. The fibre km volumes are taken from Openreach volumes for Ethernet and from LLUMS for WLA and then included in the CTCS output. In capturing relevant backhaul fibre for Ethernet and FTTP/C (WLA) circuits the fibre km have been used as the bearer length.
	This PG apportions costs to various 21CN and 20CN components, primarily CO484 (Ethernet main links), CO681 (broadband backhaul circuits), CF371 (OR PC rentals 2Mbps link per km distribution), CL950 (GEA FTTC Access Spine Fibre) and CL948 (GEA FTTP Access Fibre Spine).
	<u>Data Source/s</u>
	CTCS, Openreach volumes for Ethernet main links and LLUMS for WLA main links data. Management believes this Period is reflective of the full year.

Plant Group	Detailed Description and Methodology
PG171A	Ethernet Cablelink
	<u>Description</u>
	This Plant Group captures the depreciation costs and asset values of ethernet Cablelink.
	<u>Methodology</u>
	The costs and asset values on these PGs are allocated top component CL165, Ethernet Cablelink.
	<u>Data Source/s</u>
	N/A
PG192A	FTTC Copper Tie Cables
	<u>Description</u>
	This Plant Group captures the balance sheet values and depreciation associated with Next Generation Access Exchange–Side cables.
	<u>Methodology</u>
	Costs from this PG are allocated to CL192 (NGA E-Side Copper Cable).
PG197A	FTTC Service Delivery & Development
	<u>Description</u>
	This PG captures the costs associated with the Openreach (OR) Next Generation Access (NGA) Fibre to the Cabinet (FTTC) product.
	<u>Methodology</u>
	Costs from this PG are allocated to CL197 (FTTC development).
PG198A	FTTP Development
	<u>Description</u>
	This PG captures the costs associated with the Openreach (OR) Next Generation Access (NGA) Fibre to the Premises (FTTP) product currently under development.
	These costs are identified via a transfer charge made from BT Technology to OR.
	<u>Methodology</u>
	Costs from this PG are allocated to CL198 (FTTP development).
PG200P	Poles Capex
	<u>Description</u>
	This PG captures the costs associated with poles capital expenditure. It will include a proportion of costs from:
	 PDTLDC (base for Local Distribution Cable) NWR (Provision & Installation, Exchange lines (Residential)) NWB (Provision & Installation, Exchange lines (Business))
	WayleavesSoftware depreciation
	<u>Methodology</u>
	This plant group is apportioned to the following components based on infrastructure volumes multiplied by the standard unit cost and a conversion factors from off the Ofcom pricing model
	Costs from this PG are allocated to CZ325 (Poles Internal) and CZ326 (Poles External).

Plant Group	Detailed Description and Methodology						
	<u>Data Source/s</u>						
	NIMS, Artisan, Billing data and the Ofcom pricing model.						
PG201P	Poles Repair						
	<u>Description</u>						
	This plant group captures the costs associated with poles repair and maintenance which comes directly from the CoW PT (poles testing).						
	<u>Methodology</u>						
	This plant group is apportioned to the following components based on infrastructure volumes multiplied by the standard unit cost and a conversion factors from off the Ofcom pricing model						
	Costs from this PG are allocated to CZ325 (Poles Internal) and CZ326 (Poles External).						
	Data Source/s						
	NIMS, Artisan, Billing data and the Ofcom pricing model.						
PG213C	Local Exchanges UXD						
	<u>Description</u>						
	This PG captures the cost of constructing, extending and rearranging local UXD5 Exchanges. Types of cost include pay, depreciation and overheads.						
	UXD5 exchanges are deployed in rural areas and cater for about 460 Public Switche Telephone Network (PSTN) customers each. They are in effect mini Local Exchanges (LE).						
	<u>Methodology</u>						
	The methodology uses a modern equivalent asset. This is calculated using the volumes of UXD5 from Express multiplied by the cost of the building blocks for equivalent System X and AXE10 exchanges. Matrices supplied by the manufacturer, which map the different elements of the building blocks into Call set, duration, Access and Common are then applied to this. The base produced by this methodology was frozen in 2010-11 as UXD5 is no longer produced.						
	Costs are apportioned to three components: CL183 (Analogue line cards), CO214 (Local exchange concentrator set up) and CO215 (Local exchange concentrator duration).						
	<u>Data Source/s</u>						
	System X and AXE10 volumes in the network from the EXPRES system.						
PG217E	Main Distribution Frames Equipment						
	<u>Description</u>						
	This PG captures the cost of provision, extension, upgrade, replacement, re-arrangement and recovery of Main Distribution Frames (MDFs).						
	MDFs are those distribution frames providing direct interface with external circuits terminations (customer or other exchanges).						
	<u>Methodology</u>						
	Costs from this PG are allocated to CL175 (Local exchanges general frames capital).						
PG217F	Main Distribution Frames Maintenance						
	<u>Description</u>						
	This PG captures the maintenance cost of Main Distribution Frames (MDFs).						
	<u>Methodology</u>						
	This PG allocates to CL176 (Local exchanges general frames current).						

Plant Group	Detailed Description and Methodology				
PG217R	Main Distribution Frames Maintenance (BT Technology)				
	<u>Description</u>				
	This PG captures the maintenance cost of Main Distribution Frames (MDFs).				
	<u>Methodology</u>				
	Costs from this PG are allocated to CL176 (Local exchanges general frames current).				
PG227A	Advanced Switching Units				
	<u>Description</u>				
	This PG captures the cost of construction, installation, re-arrangement, recovery and renewal and maintenance of Advance Service Units (ASUs) equipment and Call Centre DMS100s to provide the platform to support the provision of the Virtual Private Network Service (VPNS). The VPNS Services being Virtual Private Network (VPN) and Virtual Private Services (VPS). This PG also captures the maintenance costs of the above types of equipment.				
	<u>Methodology</u>				
	Costs from this PG are allocated to CO227 (Advanced Switching Units).				
PG228A	Signalling Transfer Point (STP) and Edge Link Monitors				
	<u>Description</u>				
	This PG captures the costs of BT's signalling network, signalling network management system and interconnect equipment. For example, STP and Signalling Point Relay (SPR) switches, Signalling Traffic Management (STMS) equipment, link monitors and associated equipment (core and edge), on site spares, initial data build associated with switches, testing apparatus and initial provision of spares held for changing purposes.				
	<u>Methodology</u>				
	Costs from this PG are allocated to CO270 (Signalling transfer point).				
PG229A	Signalling Point Relay (SPR) and Core Link Monitors				
	<u>Description</u>				
	This PG captures costs of the following signalling equipment: SPR switches and core link monitors, both with associated on site spares. It also captures the costs of the initial data build associated with the switches.				
	The core link monitors and Signalling Point Relay (SPR) switches are both items of signalling equipment used to interface Public Switched Telephone Network (PSTN) switches with the Intelligent Network (IN)/Common Intelligent Service layer (CISL). The former provides a signalling assurance function whilst the latter concentrates signalling from the PSTN switches onto the Intelligent Network/CISL.				
	<u>Methodology</u>				
	Costs are allocated to the IN components CISL and Intelligent Contact Manager (ICM) based on the latest available CISL and PSTN internal and external call volumes.				
	The CISL volumes provide the split between select services and the IN/CISL Services whilst the PSTN call volumes are used to provide the split between the two select services components.				
	This PG apportions costs to six components: CO261 (Intelligent contact manager), CO266 (common intelligence service layer (CISL)), CO293 (Network Features), CO294 (ISDN2 Network Features), CO295 (ISDN30 Network Features) and CO296 (ISDN30 DDI Rentals).				
	<u>Data Source/s</u>				
	Cumulative CISL platform volumes and PSTN internal and external call volumes.				

Plant Group	Detailed Description and Methodology
PG240A	Analogue Line Testing Equipment
	<u>Description</u>
	This PG captures the costs associated with the equipment that supports line testing of Public Switched Telephone Network (PSTN) and ISDN circuits.
	<u>Methodology</u>
	Costs from this PG are allocated to CL177 (Analogue line test equipment).
PG249C	Main Exchange DLT
	<u>Description</u>
	This PG captures the capital and depreciation costs of the Main Digital Exchange DLT equipment.
	The DLT is part of the Main Exchange System X Processor unit and NGS (Next Generation Switch) that also comprises a switch block and processor and signalling functional groups, and is used for call setup and call duration.
	Main exchanges come in two types, the older System X unit and a newer NGS. System X units are not available and are being replaced by NGS units.
	<u>Methodology</u>
	Call setup and duration
	The main digital exchange is made up of System X, which is part of the legacy network, and the newer Next Generation Switch (NGS). System X is valued as CCA and NGS valued as a Modern Equivalent Asset. The switch is grouped into its constituent parts and costed up. The newer NGS have a higher capacity than the system X and this is considered in the costing. Using information from the manufactures, the costs are split into setup and duration. With information from the manufacturers we can determine the call setup and duration split for each element. The total cost of all the elements of all the units in the network is summed and then these costs are analysed into setup and duration splits. Common costs are not factored into this calculation as they do not make a difference to the overall attribution weightings, as they would be apportioned pro-rata to set up or duration costs and would not themselves change the weighting of costs to either category.
	The relative costs of call setup and call duration are expressed as percentages, and these percentages are applied to the year-end (Period 12) PG costs to determine the attribution to call set up and call duration components.
	DLT cost for OCPs
	The DLT cost relating to Other Communications Provider (OCP) has also to be determined and apportioned. Mid-year port information is downloaded from the Network Recording System (NRS). This provides the origin and destination of each 2Mbps port on every local, trunk and main exchange. This data can then be manipulated to analyse where the ports are mapped and what type of switch and of which system type is involved.
	The number of ports utilised by OCPs can be identified as a percentage of the total. This percentage is then attributed to CR470 (Intra Building Circuit (IBC) rental). The residual costs are re-based so that the new total equals 100% and attributed to main exchange call set up and main exchange call duration using the same weighting as determined above.
	Call setup costs are apportioned to CO220 (main exchange setup) and duration costs to CO221 (main exchange call duration).
	<u>Data Source/s</u>
	Network Recording System (NRS).
	Exchange Planning and Review System (EXPRES).

Plant Group	Detailed Description and Methodology
PG252B	Openreach Residual Elimination
	<u>Description</u>
	This PG captures the variance between the calculated notional revenues associated with Other Communication Providers (OCPs), and the actual revenues received from OCPs, relating to Openreach activity.
	The related revenue receivable debtor variance is also captured by this PG.
	<u>Methodology</u>
	Costs, revenues and debtors from this PG are allocated to CZ252B (OR residual elimination).
PG252N	Network Residual Elimination
	<u>Description</u>
	This PG captures the variance between the calculated notional revenues associated with Other Communication Providers (OCPs), and the actual revenues received from OCPs relating to wholesale activity.
	The related revenue receivable debtor variance is also captured by this PG.
	<u>Methodology</u>
	Costs from this PG are allocated to CZ252N (WH residual elimination).
PG254A	Main Digital Exchange - Intelligent Access and Messaging
	<u>Description</u>
	This PG captures the depreciation costs of Main Digital exchange intelligent access and messaging equipment to calls components only.
	<u>Methodology</u>
	Apportionment to the Call Set-Up components for Local and Main Exchanges is based on the relative number of Local Exchanges and Main Exchanges in the network sourced from the EXPRES system. Data amendments are more numerous and more time consuming for Main Exchanges than for Local Exchanges, so each Main Exchange is weighted by a factor determined by a survey of time spent on Data Amendments. This factor is determined based on the experience and expertise of the data amendment team, (a management estimate). This gives an estimate of the time and hence relative cost for data amendments on Local relative to Main Exchanges.
	Costs for this PG are apportioned based on minutes for CNA (Change Number Announcement) relative to minutes for the Televote service and other messaging applications.
	This PG apportions costs to CO260 (Cambridge Voice Intelligent Peripherals), CO210 (Local exchange processor duration) and CO220 (Main exchange setup).
	Data Source/s
	Exchange Planning and Review System (EXPRES).
	Data Amendments survey.
	Minutes Data from Recorded Information Distribution Equipment (RIDE) - Statistics Data Warehouse (SDW).
PG254B	OR Project Services – Residual
	<u>Description</u>
	Project management of Openreach services.

Methodology Allocated 100% to component CO254, Openreach Project Services. PG255B Main Digital Switchblock Description This PG captures the capital depreciation and maintenance costs of the Mai Exchange Switch Block equipment. Main exchanges come in two types, the older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The Switch Block is part of the Main Exchange System X Processor and NGS (Next Ge Switch) unit that also comprises of a Processor and Digital Line Termination (DLT) for groups, and is used for call setup and call duration. Methodology This PG follows the methodology in PG249C above. Data Source/s This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange F and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for contents and success are successed and successor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for contents and successor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for contents and successor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for contents and successor unit that also cores are processor unit	
PG255B Main Digital Switchblock Description This PG captures the capital depreciation and maintenance costs of the Main Exchange Switch Block equipment. Main exchanges come in two types, the older System X unit and a newer Next Gether Switch (NGS). System X units are not available and are being replaced by NGS units. The Switch Block is part of the Main Exchange System X Processor and NGS (Next Gether Switch) unit that also comprises of a Processor and Digital Line Termination (DLT) from groups, and is used for call setup and call duration. Methodology This PG follows the methodology in PG249C above. Data Source/s This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange Form and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Gether Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for one with the support of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for one with the support of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for one with the support of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for one with the support of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups.	
This PG captures the capital depreciation and maintenance costs of the Mai Exchange Switch Block equipment. Main exchanges come in two types, the older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The Switch Block is part of the Main Exchange System X Processor and NGS (Next Ge Switch) unit that also comprises of a Processor and Digital Line Termination (DLT) fi groups, and is used for call setup and call duration. Methodology This PG follows the methodology in PG249C above. Data Source/s This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange F and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups.	
This PG captures the capital depreciation and maintenance costs of the Mai Exchange Switch Block equipment. Main exchanges come in two types, the older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The Switch Block is part of the Main Exchange System X Processor and NGS (Next Ge Switch) unit that also comprises of a Processor and Digital Line Termination (DLT) figroups, and is used for call setup and call duration. Methodology This PG follows the methodology in PG249C above. Data Source/s This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange Fand Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups, and is used for or Switch Block and Digital Line Termination (DLT) functional groups.	
Exchange Switch Block equipment. Main exchanges come in two types, the older System X unit and a newer Next Geter Switch (NGS). System X units are not available and are being replaced by NGS units. The Switch Block is part of the Main Exchange System X Processor and NGS (Next Geter Switch) unit that also comprises of a Processor and Digital Line Termination (DLT) for groups, and is used for call setup and call duration. Methodology This PG follows the methodology in PG249C above. Data Source/s This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange Formand Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Geter Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for conservations.	
Switch (NGS). System X units are not available and are being replaced by NGS units. The Switch Block is part of the Main Exchange System X Processor and NGS (Next Ge Switch) unit that also comprises of a Processor and Digital Line Termination (DLT) for groups, and is used for call setup and call duration. Methodology This PG follows the methodology in PG249C above. Data Source/s This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange F and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for one of the series of the Main System is used for one of the series of the Main Exchange System X Processor unit that also cores witch Block and Digital Line Termination (DLT) functional groups, and is used for one of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also considered the series of the Main Exchange System X Processor unit that also consider	n Digital
Switch) unit that also comprises of a Processor and Digital Line Termination (DLT) for groups, and is used for call setup and call duration. Methodology This PG follows the methodology in PG249C above. Data Source/s This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange Found Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Geswitch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for considering the substitution of the processor is part of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for considering the processor is part of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for considering the processor is part of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for considering the processor is part of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for constant the processor is part of the Main Exchange System X Processor unit that also conswitch Block and Digital Line Termination (DLT) functional groups, and is used for constant the processor unit that also constant the processor	
This PG follows the methodology in PG249C above. Data Source/s This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange F and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for other states.	
Data Source/s This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange F and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also con Switch Block and Digital Line Termination (DLT) functional groups, and is used for continuous contents.	
This PG uses the same data sources as PG249C above. PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange F and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for contact the same processor.	
PG257C Main Exchange Processor Description This PG captures the capital and depreciation costs of the Main Digital Exchange F and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also con Switch Block and Digital Line Termination (DLT) functional groups, and is used for continuous contents.	
Description This PG captures the capital and depreciation costs of the Main Digital Exchange F and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for the second seco	
This PG captures the capital and depreciation costs of the Main Digital Exchange F and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also con Switch Block and Digital Line Termination (DLT) functional groups, and is used for the Main Exchange System X Processor unit that also con Switch Block and Digital Line Termination (DLT) functional groups, and is used for the Main Exchange System X Processor unit that also con Switch Block and Digital Line Termination (DLT) functional groups, and is used for the Main Exchange System X Processor unit that also con Switch Block and Digital Line Termination (DLT) functional groups, and is used for the Main Exchange System X Processor unit that also con Switch Block and Digital Line Termination (DLT) functional groups, and is used for the Main Exchange System	
and Signalling equipment. Main exchanges come in two types, an older System X unit and a newer Next Ge Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also con Switch Block and Digital Line Termination (DLT) functional groups, and is used for a	
Switch (NGS). System X units are not available and are being replaced by NGS units. The processor is part of the Main Exchange System X Processor unit that also cor Switch Block and Digital Line Termination (DLT) functional groups, and is used for a	Processor
Switch Block and Digital Line Termination (DLT) functional groups, and is used for	
and call duration.	
<u>Methodology</u>	
This PG follows the methodology in PG249C above.	
Data Source/s	
This PG uses the same data sources as PG249C above.	
PG260A Intelligent Network Platform	
<u>Description</u>	
This PG captures the costs of all equipment and associated costs incurred as part of pextension, re-arrangement and recovery of Intelligent Contact Manager excluding Alfredo equipment. It also includes Intelligent Peripherals (IP) Service Con (SCP) equipment, on site spares, initial data build associated with switches, Testing A and initial provision of spares held for changing purposes.	quipment trol Point
<u>Methodology</u>	
Costs from this PG are allocated to CO261 (Intelligent Contact Manager).	
PG276A Common Capability Intelligence Service Layer (CISL)	
<u>Description</u>	
This PG captures the costs of the CISL platform that supports basic and advanced translation services (e.g. 0800, 0845 etc.) into a geographic number (e.g. 020 7xxx x call can then be routed by the Public Switched Telephony Network (PSTN) Supervising contractors on installation.	xx) so the

Plant Group	Detailed Description and Methodology					
	<u>Methodology</u>					
	Costs from this PG are apportioned using call volumes from the CISL platform. This PG then apportions costs between CO261 (Intelligent Contact Manager), CO266 (Cambridge / CISL infrastructure) and CO293 (Network Features).					
PG280C	AXE10 Local Exchange Processor	r				
	<u>Description</u>					
		ing to the AXE10 Digital Local Exchange Processor and orises both concentrator and processor functionality, and is on.				
	<u>Methodology</u>					
	indicative of normal course of bus	Modernisation Programme (LEMP). The LEMP contract is iness. It sets out the contract prices for the various switch appliers by BT's procurement function.				
	The aggregate cost within the network of each of the elements of the switch is determined on the basis of Local Exchange Modernisation Programme 2 (LEMP2) contract prices, by multiplying the volume by the unit cost of each element.					
	The elements of the processor are assigned into three main blocks:					
	 Digital Line Termination (DLT) Switch Block Processor and Signalling 					
	We are concerned with Processor and Signalling only for this PG.					
	Based on advice from switching suppliers, the function of each switch element is analysed between call set up and call duration. This advice shows an analysis between set-up and duration which will not change on a year by year basis as the building elements of the asset remain a constant. Certain elements support both functions.					
	All of the above is based historical data until such time as the base is unfrozen. The procedures below are updated each year and any changes mean that historical data is re-based to accommodate these.					
	The processor usage of Network Features (previously called Select Service) calls has also to be determined. An extract of billing call record information is gathered from a sample of ten System X and ten AXE 10 Local Exchanges and analysed into whether the record type is Select Service driven or not.					
	Below is a table of billing record types:					
	Record Type	Description				
	RT21	Normal subs billing records				
	RT22 (Select Service Driven)	Diverted calls and A, D and C ring backs				
	RT29 (Select Service Driven) RT34	Activation/Deactivation of Select Services Integrated Services Digital Network (ISDN) call records				
	Record Types 34 were ignored in this calculation on the assumption that the Network Features to ordinary calls without Select Services is in the same ratio for ISDN as for analogue calls.					
	Billing records were extracted for one whole week during the year at 20 Digital Local Exchange (DLE) sites in the country. The number of processor instructions was derived for call					

usage types to derive a weighted processor average.

(ISDN30 DDI Rentals).

The final weighted processor usage percentage for Network Features is then applied to the PG cost, which is then further apportioned by service volumes for WLR/ISDN2/ISDN30/ISDN30 DDI Rentals. This cost is apportioned to CO293 (Network Features), CO294 (ISDN2 Network Feature), CO295 (ISDN30 Network Features) and CO296

Detailed Description and Methodology

Caller Display is a subset of Network Features. The Type 29 billing record activations which are Network Features driven also contain Calling Line Identity and these can be separately identified as a subset. The proportion of Network Features volumes relating to CLI (Calling Line Identity) is derived using billing data volumes and this fraction is used to map costs to a separate Caller Display Component. The quantity of processor cost relating to DLE call set up and call duration is then re-based so that the new total equals 100%.

Costs from this PG are apportioned to CO210 (Local exchange processor duration), CO212 (Local exchange processor set up), CO292 (Caller Display), CO293 (Network Features), CO294 (ISDN2 Network Feature), CO295 (ISDN30 Network Features) and CO296 (ISDN30 DDI Rentals) and CR470 (Intra Building Circuit IBC rental).

Data Source/s

- NRS
- EXPRES
- Billing records from the Meridian switch
- Billing records from ORBIT for Network Features and Caller Line Identity

PG281C

AXE10 Local Exchange Digital Line Termination

Description

This PG captures the costs and balance sheet of AXE10 Digital Line Termination (DLT). The DLT switch comprises both call set-up and call duration functionality.

Methodology

The aggregate cost within the network of each of these switch elements is determined on the basis of LEMP2 contract prices i.e. the volume of each element is multiplied by the unit cost of each element. LEMP2 was the Local Exchange Modernisation Programme. It set out the contract prices for the various switch elements and is negotiated with suppliers by BT's procurement function. The LEMP2 contract is indicative of normal course of business and covers both Local and System X main Exchanges based on advice from switching suppliers. The function of each switch element is analysed between call set-up and call duration. This advice showing an analysis between set-up and duration will not change on a year by year basis as the building elements of the asset remain a constant.

These percentages are then weighted for the relative proportion of the PG total cost represented by processor costs as opposed to concentrator costs and are used to apportion costs to CO212 (Local Exchange Processor Set-Up) and CO210 (Local Exchange Processor Duration). All of the above is based historical data until such time as the base is unfrozen. The procedures below are updated each year and any changes mean that historical data is rebased to accommodate these.

The DLT cost relating to Other Communications Providers (OCPs) also needs to be determined. For this mid-year port information is downloaded from the NRS. This provides the origin and destination of each 2Mbps port on every local, trunk and main exchange. This data can then be manipulated to analyse where the ports are pointed, what type of switch, of which system type and the system type involved.

The fraction of ports that relate to OCPs can be expressed as a fraction of the total and is apportioned to CR470 (Intra Building Circuit (IBC) rental). The residual amount is then rebased so that the new total equals 100% and apportioned to CO212 (Local Exchange Processor Set-Up) and CO210 (Local Exchange Processor Duration).

Data Source/s

- Network Records System (NRS)
- Exchange Planning and Review System (EXPRES)
- Billing records

Plant Group	Detailed Description and Methodology					
PG282A	Local Exchange Switch Block (AX	(E10)				
	<u>Description</u>					
	This PG captures cost and balance sheet costs of AXE10 Digital LE Switch Blocks.					
	The switch comprises both concentrator and processor functionality, and is used for call set up and call duration.					
	<u>Methodology</u>					
	This PG follows the same methodology as PG281C above.					
	Data Source/s					
	This PG uses the same data sources as PG281C above.					
PG283A	Local Exchange Conc (AXE10) Call set-up					
	<u>Description</u>					
	This PG captures the costs and balance sheet relating to AXE10 DLE Digital Concentrator Ca Set-Up.					
	These assets comprise both call se Capital and Maintenance costs.	et-up and call duration functionality. The PG contains both				
	<u>Methodology</u>					
	The amount of concentrator usage for Select Service calls has to be determined. An extract the Billing Call Record information is gathered from a sample of ten System X Local Exchange and analysed into whether the record type is Select Service driven or not.					
	Record Type	Description				
	RT21 RT22 (Select Service Driven)	Normal subs billing records Diverted calls and A, D and C ring backs				
	RT29 (Select Service Driven)	Activation/Deactivation of Select Services				
	RT34	Integrated Services Digital Network (ISDN) call records				
	Only RT22 makes use of the Concentrator Duration element of the switch assets and the fraction of these compared to the total (RT21+RT22+RT29) are used to determine the relative use of the Concentrator for Select Services. RT34 is ignored in this calculation on the assumption that the Select Services to ordinary calculation without Select Services is in the same ratio for ISDN as for Analogue calls. Billing Records are generated only for outgoing calls and do not represent all of the concentrator call set-up capacity. The total amount of Select Service related concentrate usage is further refined relative to the quantity of Originating Calls and Own Exchange Calls relation to the total. The final weighted concentrator usage percentage for Select Services is then applied to the PG cost, which is then further apportioned by service volumes WLR/ISDN2/ISDN30/ISDN30 DDI Rentals. This cost is apportioned to CO293 (Network Features), CO294 (ISDN2 Network Feature), CO295 (ISDN30 Network Features) and CO2 (ISDN30 DDI Rentals).					
	The residual quantity of concentrator cost relating to Call Set-Up is apportioned to CO2 (Local Exchange Concentrator Set-Up).					
	<u>Data Source/s</u>					
	Billing Records obtained fromBilling records from the MericORBIT	n a sample of ten AXE10 and ten System X Local Exchange lian switch				

Plant Detailed Description and Methodology Group **PG284A** Local Exchange Conc (AXE10) Call Duration Description This PG captures the costs and balance sheet relating to AXE10 DLE Digital Concentrator Call Duration. The switch comprises both concentrator and processor functionality, and is used for call set-up and call duration. Methodology The amount of concentrator usage for Select Service calls has to be determined. A sample extract of Billing Call Record information is gathered from a sample of ten System X local and ten AXE10 Local Exchanges and analysed into whether the record type is Select Service driven or not. Record Type Description Normal subs billing records RT21 RT22 (Select Service Driven) Diverted calls and A, D and C ring backs RT29 (Select Service Driven) Activation/Deactivation of Select Services Integrated Services Digital Network (ISDN) call records Only RT22 makes use of the Concentrator Duration element of the switch assets and the fraction of these compared to the total (RT21+RT22+RT29) are used to determine the relative use of the Concentrator for Select Services. RT34 record types are ignored in this calculation on the assumption that the Select Services to ordinary calls without Select Services is in the same ratio for ISDN as for Analogue calls. Billing records are generated only for outgoing calls and therefore do not represent all of the concentrator call set-up capacity. The total amount of Select Service related concentrator usage is further refined relative to the quantity of Originating Calls and Own Exchange Calls in relation to the total which also includes Call Terminating and DLE Transit. The final weighted concentrator usage percentage for Select Services is then applied to the PG cost which is then further apportioned by service volumes WLR/ISDN2/ISDN30/ISDN30 DDI Rentals. This cost is apportioned to CO293 (Network Features), CO294 (ISDN2 Network Feature), CO295 (ISDN30 Network Features) and CO296 (ISDN30 DDI Rentals) The residual quantity of concentrator cost relating to Call Set-Up is apportioned to CO215 (LE Concentrator Duration). Data Source/s • Billing records from the Meridian switch ORBIT **PG285C System X Processor Description** This PG captures the costs and balance sheet relating to System X Digital DLE Processor and Signalling which flow through from classes of work (CoW) LDX via base PDTSYSXD. The costs are identified by the CoW to PG exhaustion process. This enables the relative proportions of concentrator and processor costs to be identified. **Methodology** The attribution of processor costs follows a number of steps. The LE processor is analysed into its constituent elements: Flexible Voice Platforms • Alarm Utility Subsystems Network Interface Subsystems Analogue Junction Line Shelf

Detailed Description and Methodology

This analysis is carried out on the basis of various capacity measures (such as the number of processing clusters, the number of 2Mbps switch ports and the number of signalling channels) actually present in the BT Network, as shown in Exchange Planning and Review System (EXPRES) and Processor Utilisation and Loading of Switch Equipment (PULSE).

The next step is to determine the number of switches and switching elements within each switch that would be required to provide such capacity if the switching functionality were optimally dimensioned. This gives the number of switch elements of each type for the purposes of this analysis.

It is necessary to carry out this step in the process because switching assets are not always purchased and recorded on a switch element-by-element basis, and it would not otherwise be possible to determine the relative split between set up and duration costs.

The aggregate cost within the network of each of these switch elements is determined on the basis of Local Exchange Modernisation Programme 2 (LEMP2) contract prices. The volume of each element is multiplied by the unit cost of each element. The elements of the processor are assigned into three main blocks:

- Digital Line Termination (DLT)
- Switch Block
- Processor and Signalling

We are concerned with the Processor and Signalling only for this PG.

Based on advice from switching suppliers, the function of each switch element is analysed between call set up and call duration. This advice showing an analysis between set-up and duration will not change on a year by year basis as the building elements of the asset remain a constant. Certain elements support both functions.

This overall process is illustrated below:

Switch Element	£/ %	1	2	3	etc	Total 1+2+3 etc
Volume (from NRS and EXPRES)		Α				
Unit Cost (from LEMP2)		В				
Total Cost	£	AxB = C				
Utilisation						
Set-up	%	Х				
Duration		Υ				
Both		Z				
Cost of call set-up functionality		CxX				Р
Cost of call duration functionality		CxY				Q
Cost of elements supporting both functions		CxZ				R

The cost of those switch elements that are common to both call set up and call duration functions is loaded to the cost of those functions pro-rata to their unloaded costs.

These percentages are then weighted for the relative proportion of the PG's total cost represented by processor costs as opposed to concentrator costs and are used to attribute costs to processor set up CO212 and processor duration CO210).

All of the above is based historical data until such time as the base is unfrozen. The procedures below are updated each year and any changes mean that historical data is re-based to accommodate these.

However, the Processor usage of Select Service calls has also to be determined. An extract of billing call record information is gathered from a sample of ten System X Local Exchanges (Data Source/s: Billing Records) and ten AXE10 Local Exchanges then analysed into whether the record type is Select Service driven or not.

Detailed Description and Methodology

Record Type	Description
RT21	Normal subs billing records
RT22 (Select Service Driven)	Diverted calls and A, D and C ring backs
RT29 (Select Service Driven)	Activation/Deactivation of Select Services
RT34	Integrated Services Digital Network (ISDN) call records

RT34s are ignored in this calculation on the assumption that the Select Services to ordinary calls without Select Services is in the same ratio for Integrated Services Digital Network (ISDN) as for analogue calls.

Billing records were extracted for one whole week during the year at twenty Digital LE sites in the country.

The number of processor instructions was derived for call usage types to derive a weighted processor average.

Billing records are generated only for outgoing calls and therefore do not represent all of the processing capacity. The total amount of Network Features related processor usage is further refined relative to the quantity of Originating Calls and Own Exchange Calls relative to the total which also includes Call Terminating any Tandem traffic.

The final weighted processor usage percentage for Network Features is then applied to the PG cost, which is then further apportioned by service volumes for WLR/ISDN2/ISDN30/ISDN30 DDI Rentals. The quantity of processor cost relating to LE call set up and call duration is then re-based so that the new total equals 100%. This cost is apportioned to CO293 (Network Features), CO294 (ISDN2 Network Feature), CO295 (ISDN30 Network Features) and CO296 (ISDN30 DDI Rentals).

Caller Display is a subset of Network Features. The Type 29 billing record activations which are Network Features driven also contain Calling Line Identity and these can be separately identified as a subset. The proportion of Network Features volumes relating to CLI (Calling Line Identity) is derived using billing data volumes and this fraction is used to point costs to a separate Caller Display Component.

The signalling usage and cost relating to other operators has yet to be determined. Information from Network Recording System (NRS) is downloaded showing destinations including those relevant to Other Operators and compared to the total. Signalling costs form part of the PG total costs but the separate signalling cost is clearly identifiable so on this basis an apportionment is made from this PG to CR470 (Intra Building Circuits (IBC) Rentals).

Data Source/s

- EXPRES
- Billing records from the Meridian switch
- Billing records from ORBIT for Network Features and Caller Line Identity

PG286C

Local Exchange Digital Line Termination

Description

This PG captures the costs and balance sheet relating to the System X Digital DLE DLT.

The switch comprises both concentrator and processor functionality and is used for call setup and call duration.

Methodology

The attribution of processor costs follows a number of steps:

The local exchange processor is analysed into its constituent elements:

- Host Core
- C7 Signalling Links
- 2Mbps Systems
- Miscellaneous

Detailed Description and Methodology

This analysis is carried out on the basis of various capacity measures (such as the number of processing clusters, the number of 2Mbit/sMbps switch ports and the number of signalling channels) actually present in the BT Network, as shown in Network Records System (NRS) and Processor Utilisation and Loading of Switch Equipment (PULSE).

The next step is to determine the number of switches and switching elements within each switch that would be required to provide such capacity if the switching functionality were optimally dimensioned. This gives the number of switch elements of each type for the purposes of this analysis. It is necessary to carry out this step in the process as switching assets is not always purchased and recorded on a switch element-by-element basis. Otherwise it would not be possible to determine the relative split between set-up and duration costs.

The aggregate cost within the network of each of element within the switch is determined on the basis of LEMP2 contract prices i.e. the volume of each element is multiplied by the unit cost of each element. LEMP2 was the Local Exchange Modernisation Programme. It set out the contract prices for the various switch elements and was negotiated with suppliers by BT's procurement function. The LEMP2 contract is indicative of normal course of business and covers both local and System X main Exchanges.

Based on advice from switching suppliers, the function of each switch element is analysed as between call set-up and call duration. This advice showing an analysis between set-up and duration will not change on a year by year basis as the building elements of the asset remain a constant.

Certain elements support both functions.

Switch Element	£/ %	1	2	3	etc	Total 1+2+3 etc
Volume (from NRS and EXPRES)		Α				
Unit Cost (from LEMP2)		В				
Total Cost	£	AxB				
		= C				
Utilisation						
Set-up	%	Х				
Duration		Υ				
Both		Z				
Cost of call set-up functionality	£	CxX				Р
Cost of call duration functionality	£	CxY				Q
Cost of elements supporting both	£	CxZ				R
functions						

These percentages are then weighted for the relative proportion of the PG total cost represented by processor costs as opposed to concentrator costs and are used to attribute costs to Local Exchange Processor Set-Up CO212 and Local Exchange Processor Duration CO210. However, the DLT cost relating to Other Communications Providers (OCPs) also needs to be determined.

All of the above is based on historical data until such time as the base is unfrozen. The procedures below are updated each year and any changes mean that historical data is rebased to accommodate these. Mid-year port information is downloaded from NRS. This provides the origin and destination of each 2Mbps port on every Local, Trunk and Main Exchange. This data can then be manipulated to analyse where the ports are pointed, what type of switch, of which system type and the system type involved.

The fraction of ports that point to OCPs can be identified as a fraction of the total. This percentage is then pointed at the Interconnect Rentals component CO470. The residual amount is then rebased so that the new total equals 100% and is pointed to Local Exchange Call Set-Up and LE Call Duration.

Data Source/s

NRS. Exchange Planning and Review System (EXPRES).

Plant Detailed Description and Methodology Group **PG287A** Local Exchange Switch Block (AXE10) Description This PG captures the costs and balance sheet relating to the System X Digital Local Exchange Switch Block. The switch comprises both concentrator and processor functionality, and is used for call setup and call duration. Methodology The attribution of processor costs follows a number of steps. The local exchange processor is analysed into its constituent elements: • Flexible Voice Platforms • Alarm Utility Subsystems • Network Interface Subsystems Analogue Junction Line Shelf This analysis is carried out on the basis of various capacity measures (such as the number of processing clusters, the number of 2Mbps switch ports and the number of signalling channels) actually present in the BT Network, as shown in Exchange Planning and Review System (EXPRES) and NRS (Network Recording System). The next step is to determine the number of switches and switching elements within each switch that would be required to provide such capacity. It is necessary to carry out this step in the process as switching assets are not always purchased and recorded on a switch elementby-element basis. Otherwise it would not be possible to determine the relative split between set-up and duration costs. The aggregate cost within the network of each of these switch elements is determined on the basis of Local Exchange Modernisation Programme 2 (LEMP2) contract prices i.e. the volume of each element is multiplied by the unit cost of each element. LEMP2 was the Local Exchange Modernisation Programme. It set out the contract prices for the various switch elements and is negotiated with suppliers by BT's procurement function. The LEMP2 contract is indicative of normal course of business and covers both Local and System X Main Exchanges. The elements of the processor are assigned into four main blocks. Digital Line Termination (DLT), Switch Block, Processor and Signalling. For this PG we are only concerned with the switch block. Based on advice from switching suppliers, the function of each switch element is analysed as between call set up and call duration. Certain elements support both functions. This overall process is illustrated below: **Switch Element** £/ etc Total 1+2+3 etc % Volume (from NRS and EXPRES) Α Unit Cost (from LEMP2) В **Total Cost** £ **AxB** = C Utilisation % Set-up Χ Duration Υ Ζ Both Cost of call set-up functionality £ $C \times X$ Cost of call duration functionality £ CxY0 CxZCost of elements supporting both R

These percentages are then weighted for the relative proportion of the PG total cost represented by processor costs as opposed to concentrator costs and are used to apportion

functions

Plant Detailed Description and Methodology Group costs to CO212 (Local Exchange processor set up) and CO210 (Local Exchange Processor Duration). The base is currently frozen. Data Source/s NRS EXPRES **PG288A** Local Exchange Concentrator (Sys X) Call Set-Up This PG captures the costs and balance sheet relating to the System X Digital Concentrator Call Set-Up which flows from classes of work (CoW) LDX via PDTSYSXD. The switch comprises both concentrator and processor functionality, and is used for call set-up and call duration. Methodology The processor call related costs (DLT, Switch Block and Processor and Signalling) are attributed to CO210 Local Exchange processor duration and CO212 LE Processor set-up. Additional apportionment is made from the Local Exchange DLT PG to Interconnect Connections and from Local Exchange Processor to Chargeable Services (Select Services). The costs are identified by the CoW to PG exhaustion process. This enables the relative proportions of concentrator and processor costs to be identified. The attribution of Concentrator Call Set-Up costs follows a number of steps and the procedures below are updated each year. The amount of concentrator usage for Select Service calls has to be determined. An extract of billing call record information is gathered from a sample of ten System X Local Exchanges and ten AXE10 Local Exchanges analysed into whether the record type is Select Service driven or not.

Record Type	Description
RT21	Normal subs billing records
RT22 (Select Service Driven)	Diverted calls and A, D and C ring backs
RT29 (Select Service Driven)	Activation/Deactivation of Select Services
RT34	Integrated Services Digital Network (ISDN) call records

Only RT22s make use of the Concentrator Set-Up element of the switch assets and the fraction of these compared to the total (Calls and Own Exchange Calls in relation to the total which also includes Call Terminating and DLE Transit.

The final weighted concentrator usage percentage for Select Services is then applied to the PG, which is then further apportioned by service volumes for WLR/ISDN2/ISDN30/ISDN30 DDI Rentals. This cost is apportioned to CO293 (Network Features), CO294 (ISDN2 Network Features), CO295 (ISDN30 Network Features) and CO296 (ISDN30 DDI Rentals).

The residual quantity of concentrator cost relating to Call Set-Up is pointed to CO214 Local Exchange Concentrator Set-Up.

RT21+RT22+RT29 are used to determine the relative use of the Concentrator for Select Services.

RT34 record types were ignored in this calculation on the assumption that the Select Services to ordinary calls without Select Services is in the same ratio for ISDN as for Analogue calls.

Billing records are generated only for outgoing calls and therefore do not represent all of the concentrator call set-up capacity.

The total amount of Select Service related concentrator usage is further refined relative to the quantity of Originating Calls and Own Exchange Calls in relation to the total which also includes Call Terminating and DLE Transit.

Detailed Description and Methodology

The final weighted concentrator usage percentage for Select Services is then applied to the PG. This is further split into Select Services relating to Wholesale and Retail by using volumes from ORBIT. The retail fraction is pointed at CO290 Openreach Network Features - external and the Wholesale fraction at CO291 Openreach Network Features - internal.

The residual quantity of concentrator cost relating to Call Set-Up is pointed to CO214 Local Exchange Concentrator Set-Up.

The PG contains both Capital and Maintenance costs.

Data Source/s

- · Billing records from the Meridian switch
- ORBIT

PG289A

Local Exchange Concentrator (Sys X) Call Duration

Description

This PG captures costs and balance sheet relating to System X DLE Digital Concentrator Call Duration which flows from classes of work (CoW) LDX via PDTSYSXD.

The System X switch comprises both concentrator and processor functionality, and is used for call set-up and call duration.

<u>Methodology</u>

The processor call related costs (Digital Line Termination (DLT), Switch Block and Processor and Signalling) are attributed to CO210 Local Exchange processor duration and CO212 LE Processor Set-Up. Additional apportionments are made from the LE DLT PG to Interconnect Connections and from LE Processor to Chargeable Services (Select Services). The costs are identified by the CoW to PG exhaustion process.

This enables the relative proportions of concentrator and processor costs to be identified. The attribution of Concentrator Duration costs follows a number of steps.

The procedures below are updated each year.

The amount of concentrator usage for Select Service calls has to be determined. An extract of billing call record information is gathered from a sample of ten System X Local Exchanges and ten AXE10 Local Exchanges analysed into whether the record type is Select Service driven or not.

Record Type	Description
RT21	Normal subs billing records
RT22 (Select Service Driven)	Diverted calls and A, D and C ring backs
RT29 (Select Service Driven)	Activation/Deactivation of Select Services
RT34	Integrated Services Digital Network (ISDN) call records

Only RT22s make use of the Concentrator Duration element of the switch assets and the fraction of these compared to the total (RT21+RT22+RT29) are used to determine the relative use of the Concentrator for Select Services. RT34s are ignored in this calculation on the assumption that the Select Services to ordinary calls without Select Services is in the same ratio for ISDN as for Analogue calls. Billing records are generated only for outgoing calls and therefore do not represent all of the concentrator call set-up capacity.

The total amount of Select Service related concentrator usage is further refined relative to the quantity of Originating Calls and Own Exchange Calls in relation to the total which also includes Call Terminating and Call Originating.

The final weighted concentrator usage percentage for Select Services is then applied to the PG cost. This is further split into Select Services relating to Enterprise and Rest of BT by using volumes from ORBIT, which is then further apportioned by service volumes for WLR/ISDN2/ISDN30/ISDN30 DDI Rentals. This cost is apportioned to CO293 Network Features CO294 (ISDN2 Network Feature), CO295 (ISDN30 Network Features) and CO296 (ISDN30 DDI Rentals).

Plant	Detailed Description and Methodology
Group	
	The residual quantity of concentrator cost relating to Call Set-Up is pointed to CO215 LE Concentrator Duration. The PG contains both Capital and Maintenance costs.
	<u>Data Source/s</u>
	Billing records from the Meridian switch.ORBIT
PG300N	Duct Network Adjustments (Internal)
	<u>Description</u>
	This PG captures the cost of internal network adjustments (work we conduct for when building our own network) for duct that above and below the financial limit of $£4,750$ per km.
	We use the detailed breakdown of our KPI reporting shared with Ofcom to identify those network adjustments that are duct related within class of work LFDC, LDD, LFSC and LDC for Openreach.
	<u>Methodology</u>
	Costs from this PG are allocated to CZ327 (Duct Internal Network Adjustments above the financial limit) and CZ328 (Duct Internal Network Adjustments below the financial limit) based on the proportion that are above and below the financial limit.
PG301N	Poles Network Adjustments (External)
	<u>Description</u>
	This PG captures the cost of external network adjustments (work we conduct on behalf of our communication providers) for poles.
	We capture cost information from external bookings made when conducting work for our communication providers under a specific PIA programme.
	<u>Methodology</u>
	Costs from this PG are allocated to CZ332 (Poles External Network Adjustments).
PG302N	Poles Network Adjustments (Internal)
	<u>Description</u>
	This PG captures the cost of internal network adjustments (work we conduct for when building our own network) for poles.
	We use the detailed breakdown of our KPI reporting shared with Ofcom to identify those network adjustments that are duct related within class of work LDC and LFDC for Openreach.
	<u>Methodology</u>
	Costs from this PG are allocated to CZ331 (Poles Internal Network Adjustments).
PG303N	Duct Network Adjustments (External)
	<u>Description</u>
	This PG captures the cost of external network adjustments (work we conduct on behalf of our communication providers) for duct that above and below the financial limit of £4,750 per km.
	We capture cost information from external bookings made when conducting work for our communication providers under a specific PIA programme.
	<u>Methodology</u>
	Costs from this PG are allocated to CZ330 (Duct External Network Adjustments above the financial limit) and CZ329 (Duct External Network Adjustments below the financial limit) based on the proportion that are above and below the financial limit.

Plant Group	Detailed Description and Methodology
PG300T	PPC Point of Handover Description This PG captures costs and balance sheet associated with providing customer sited point of handover equipment. Methodology Costs from this PG are allocated to CO379 (Point of Handover Electronics).
D00047	
PG301T	SDH Tier 0 Equipment
	<u>Description</u> This PG captures depreciation costs and asset values of the link element of Global Backhaul bearers. Bearers provide the transmission capability for the circuits that support BT's Products.
	Global Backhaul bearers are at Tier 0 (zero) in the core transmission network. This tier is associated with international circuits between Digital International Switching Centres (DISCs) and Satellite earth stations as well as international private circuits.
	<u>Methodology</u>
	Costs from this PG are allocated to CB367 (ISC to Frontier Link).
PG311T, PG313T,	SDH Tier Equipment
PG315T,	<u>Description</u>
PG321T, PG323T, PG325T, PG331T, PG333T, PG335T, PG341T, PG343T,	These Plant Groups (PGs) capture the depreciation, maintenance and other overhead (e.g. accommodation) costs and asset values associated with the link elements of SDH and MSH (Marconi Synchronous Hierarchy) bearers. SDH and MSH are types of technology that form part of BT's Core Transmission network. Combinations of these assets (i.e. two bits of electronics joined by fibre and duct) make up what is known as a "bearer". The bearers within the network carry circuits that relate to
	different products and bandwidths. More detail can be found in Annex 3 Data Sources under CTCS (Core Transmission Costing System).
PG351T, PG353T, PG355T,	Different PGs exist to differentiate the different tiers of bearers in the network and their transmission rate.
PG359T, PG381T, PG383T, PG385T	 Tier 0 is the highest level in the network, intended to handle international traffic. Tier 1 is the long haul intricate or backbone network. It consists of 4/1 and 4/4 cross connect switches. A cell or Supercell is an additional ring between Tiers 1 and 2. Tier 2 is the Regional network linking important cities and local towns. Every Tier 2 ring is dual parented on two separate Tier 1 nodes. Tier 3 is the level used for Booster schemes. Tier 4 is the access network for SDH Customers.
	MSH is the high capacity platform to cater for traffic at 140Mbps and above. SDH bearers have various transmission rates as indicated by the Synchronous Transport Module (STM).
	 STM1 – 155Mbps. [MSH STM1 Equipment] STM4 – 622Mbps. STM16 – 2.48Gbit/s. [MSH STM16 Equipment] STM64 – 10Gbit/s. [MSH STM64 Equipment]
	<u>Methodology</u>
	The costs and asset values on these PGs are apportioned to network components (representing circuits) based on how the circuits use the bandwidth of a bearer. The relationship between circuits and bearers is held in CTCS. Extracts from CTCS give us the data required to derive an allocation, specifically:
	The bearer equipment that a circuit 'Hits' along its route.

Detailed Description and Methodology

• The factored volumes (reflecting relative usage of capacity) of the circuit segments carried by a bearer together with the length of these segments.

In general a bearer can support many circuits. The cost of an individual bearer is therefore apportioned across all the segments of circuits carried by the bearer.

The apportionment of cost is based on a factored volume which is calculated by factoring the raw volume (circuit-bearer equipment hits) figure by a usage factor

The usage factor is the proportion of the total bandwidth of a bearer used by a circuit. For example a 155Mbps SDH bearer can support 63 2Mbps circuits, 3 34Mbps circuits or a single 155Mbps circuit so a 2Mbits/Mbps circuit would have a usage factor of one 63rd of a 155Mbps bearer whereas a 34Mbps circuit would have a usage factor of a third.

PG341T, PG343T and PG345T relate to the Tier 4 bearers and need to be split between both Core and Access components. However in CTCS we only see the data for Core components. To calculate the split between the Core and Access elements we the use the output of the base PDTSDH (SDH electronic assets). To derive an appropriate allocation to Access components we take the PG to Component data from the Access Rentals model. This is to allocate the costs of electronics in the last serving exchange to the Local end component.

Costs are apportioned to 70 network components including PPC, PC rental, CCT, ISI, Framestream Broadband and ASU and POH components for both Openreach and Enterprise. The largest apportionments across all of the PGs are to: CO681 (Broadband backhaul circuits), and CO325 (Remote local transmission link).

Data Source/s

CTCS data for Period 6. Management believes this Period to be reflective of the full year.

For PG341T, PG343T and PG345T we also use output from PDTSDH base and Access Rentals model.

PG350N

Core Fibre

Description

This PG captures the depreciation costs and asset values of the core length elements of the bearers in BT's Core Transmission network. Bearers provide the transmission capability for the circuits that support BT's products.

A bearer consists of electronics located at intermediate nodes, together with a fibre cable and the duct through which it passes. A fibre cable between two nodes can support many bearers (a bearer generally uses a pair of fibres whereas a fibre cable can have up to 240 fibres).

The length element of a bearer relates to the fibre cable, duct and the repeating equipment between the nodes.

Methodology

This PG apportions costs to network components (circuits) based on how the circuits use the different bearers. The relationship between circuits and bearers is held in CTCS. Analysis of the CTCS database, which itself extracts information from engineering databases, provides details of the relationships between bearers and circuits, specifically:

- The bearer equipment that a circuit 'Hits' along its route.
- The factored volumes (reflecting relative usage of capacity) of the circuit segments carried by a bearer together with the length of these segments.

We use the length of fibre used by the circuits over each bearer to generate the relative weightings which we use to attribute costs to components.

This PG apportions costs to multiple 21CN and 20CN components, , CN879 (Core Metro connectivity OR) and CO370 (Inter – tandem transmission length).

Data Source/s

CTCS data for Period 6. Management believes this Period is reflective of the full year.

Plant Group	Detailed Description and Methodology
PG361T, PG365T, PG367T,	Plesiochronous Digital Hierarchy (PDH) Bearer Link
	<u>Description</u>
PG371T, PG373T, PG375T,	These Plant Groups (PGs) capture the depreciation, maintenance and other overhead costs and asset values of the link elements of PDH bearers. Bearers provide the transmission capability for the circuits that support BT's Products.
PG377T, PG379T, PG399T	PDH technology forms part of BT's Core Transmission network. Combinations of assets in the transmission network (i.e. two bits of electronics joined by fibre and duct) make up what is known as a "bearer". The bearers within the network carry circuits that relate to different products and bandwidths. More detail can be found in Annex 3 Data Sources under CTCS (Core Transmission Costing System).
	PDH bearers have various transmission rates and can use an optical or metallic path. The variations are represented in by the different PGs.
	 2Mbps. [PDH Metal and PDH Optical] 8Mbps. [PDH Optical] 34Mbps. [PDH Metal and PDH Optical] 140Mbps. [PDH Metal and PDH Optical] 565Mbps. [PDH Optical] Methodology
	Methodology The costs and asset values on these PGs are apportioned to network components
	(representing circuits) based on how the circuits use the bandwidth of a bearer. The relationship between circuits and bearers is held in CTCS. Extracts from CTCS give us the data required to derive an allocation, specifically:
	 The bearer equipment that a circuit 'Hits' along its route. The factored volumes (reflecting relative usage of capacity) of the circuit segments carried by a bearer together with the length of these segments.
	In general a bearer can support many circuits. The cost of an individual bearer is therefore apportioned across all the segments of circuits carried by the bearer.
	The apportionment of cost is based on a factored volume which is calculated by factoring the raw volume (circuit-bearer equipment hits) figure by a usage factor.
	The usage factor is the proportion of the total bandwidth of a bearer used by a circuit. For example a 155Mbps SDH bearer can support 63 2Mbps circuits, 3 34Mbps circuits or a single 155Mbps circuit so a 2Mbps circuit would have a usage factor of one 63rd of a 155Mbps bearer whereas a 34Mbps circuit would have a usage factor of a third.
	These PGs apportion costs to more than 40 network components.
	The most significant cost apportionments are to CO325 (Remote local transmission link), CO360 (Inter -tandem transmission link), and CF371 (OR PC Rental 2Mbps link per km distribution).
	<u>Data Source/s</u>
	CTCS Database for Period 6 Management believes this Period to be reflective of the full year.
PG391T, PG393T, PG395T	Plesiochronous Digital Hierarchy (PDH) Radio Bearer Link Description
	These Plant Groups (PGs) capture the depreciation costs and asset values of the link elements of PDH Radio bearers.
	Radio Bearers provide the core microwave radio transmission capability for the circuits that support BT's Products. Radio bearers are predominantly used for high capacity, city to city routes (e.g. London to Birmingham) and in inaccessible areas (such as remote parts of Scotland).

Plant Detailed Description and Methodology Group PDH Radio bearers have various transmission rates which are represented by the different PGs: • 8Mbps • 34Mbps • 140Mbps Methodology The costs and asset values on these PGs are allocated to network components (circuits) based on how the circuits use the bandwidth of a bearer. The relationship between circuits and bearers is held in CTCS. Extracts from CTCS give us the data required to derive an allocation, specifically: • The bearer equipment that a circuit 'Hits' along its route. • The factored volumes (reflecting relative usage of capacity) of the circuit segments carried by a bearer together with the length of these segments. In general a bearer can support many circuits. The cost of an individual bearer is therefore apportioned across all the segments of circuits carried by the bearer. The apportionment of cost is based on a factored volume which is calculated by factoring the raw volume (circuit-bearer equipment hits) figure by a usage factor. The usage factor is the proportion of the total bandwidth of a bearer used by a circuit. For example a 155Mbps SDH bearer can support 63 2Mbps circuits, 3 34Mbps circuits or a single 155Mbps circuit so a 2Mbps circuit would have a usage factor of one 63rd of a 155Mbps bearer whereas a 34Mbps circuit would have a usage factor of a third. PG391T and PG393T apportion costs to eleven network components, PG395T apportions costs 100% to CO325 (Remote - local transmission link). The most significant cost apportionments are to CF371 (OR PC Rental 2Mbps link per km distribution), CO325 (Remote local transmission link), and CL189 (ISDN30 access). Data Source/s CTCS data for Period 6. Management believes this Period to be reflective of the full year. **PG400T** ACE (Access Control Equipment) / ENA (Equipment Network Access) Core Equipment Description This PG captures the network transmission costs associated with ACE/ENA core equipment. This equipment is used to supply Kilostream. Types of cost include depreciation, stores and pay costs. Methodology Costs from this PG are allocated to CF381 (Openreach PC Rental 64Kbps link). **PG405A DMS100 Call Centre Switches** Description This PG captures the equipment costs associated with DMS100 Call Centre Switches. The DMS100 (Digital Multiplexer System) is a digital facility that processes OA (Operator Assistance) telephone calls. **Methodology** Costs from this PG are allocated to CO405 (DMS 100 call centre).

Plant Group	Detailed Description and Methodology
PG411P	Analogue Private Circuit Connections
	<u>Description</u>
	This PG captures the connection costs of providing analogue circuits for National Business Customers. The work takes place primarily within the transmission network.
	<u>Methodology</u>
	Costs from this PG are allocated to CO411 (Analogue PC link Connection circuit provision).
PG412C	Local End Equipment 64kbit/s
	<u>Description</u>
	This PG captures the depreciation costs associated with 64Kbit/s (Kilostream) private circuits.
	<u>Methodology</u>
	Costs from this plant group are allocated to CO432 (PC rental 64Kbps link local end).
PG412M	Local End Equipment 64kit/s Repair
	<u>Description</u>
	This PG captures the maintenance costs associated with 64Kbit/s (Kilostream) private circuits.
	<u>Methodology</u>
	Costs from this PG are allocated to CO432 (PC rentals 64Kbps link local end).
PG412P	64Kbit/s Private Circuit Connections
	<u>Description</u>
	This PG captures the connection costs of providing Kilostream circuits. The work takes place primarily within the transmission network and includes provision of private circuits.
	<u>Methodology</u>
	Costs are apportioned to components based on the relative volumes of each activity extracted from Powerhouse and COSMOSS.
	This PG apportions costs to CO417 (64 Kbit/s link connection circuit provision) and CO418 (64 Kbps PC Link Connection cct Rearrangements).
	<u>Data Source/s</u>
	Powerhouse and COSMOSS.
PG413P	Private Circuits MegaStream and IX Conns
	<u>Description</u>
	This PG captures the connection costs of providing 2 MegaStream circuits of 2Mbps or higher bandwidth. The work takes place primarily within the transmission network and includes rearrangement and transfers.
	<u>Methodology</u>
	Costs from this PG are apportioned to components based on a price-weighted volume of circuits provided during the year. The volumes are sourced from Powerhouse and Customer Oriented System for the Management of Special Services (COSMOSS) and prices from the Carrier Price List. The price-weighting considers the difference in providing a connection with that of carrying out a re-arrangement or a transfer. From these price-weighted volumes usage factors are calculated and applied.

Plant Group	Detailed Description and Methodology
Group	This PG apportions costs to CO413 (2Mbps and above PC link connection cct provision) and CF453 (OR interconnect 2Mbps connection).
	<u>Data Source/s</u>
	IX Vols / Prices from BT Enterprise Interconnect Revenue and related Pay Costs download from CID.
PG421S	Private Circuits Analogue Installation
	<u>Description</u>
	This PG captures the connection costs in providing and rearranging analogue circuits.
	<u>Methodology</u>
	Costs from this PG are allocated to CO421 (OR Analogue PC installation).
PG422S	Private Circuits Analogue Installation
	<u>Description</u>
	This PG captures the connection costs in providing and rearranging KiloStream circuits.
	<u>Methodology</u>
	Costs are apportioned to components based on the relative volumes of each activity from Powerhouse and COSMOSS. This PG apportions costs to CO417 (64Kbit/s link connection circuit provision) and CO418 (64 Kbps PC Link Connection cct Rearrangements)
	<u>Data Source/s</u>
	Powerhouse and COSMOSS.
PG440C	Local End Equipment ASDH 4x2Mbps Equipment
	<u>Description</u>
	This PG captures the depreciation costs for ASDH 4x2 Bearer/Line systems, that is, electronics equipment for a Bearer/Line System capacity of 4x2Mbps.
	<u>Methodology</u>
	The attribution of the PG costs to components is based on the number of circuits of different types that are carried over bearers that use these Bearer/Line Systems.
	These 4x2 bearers are used in the provision of 2Mbps private circuits, interconnection circuits, PPCs (Partial Private Clients) and ISDN30. Each of these circuit types has its own component and the PG costs are attributed to them based on the relative circuit count of each component sourced from CTCS.
	This PG apportions costs to various components, primarily CL189 (ISDN30 access) and CO439 (PC rentals 2Mbps local end fibre).
	Data Source/s
	The data source for the number of circuits is the CTCS for Period 6. Management believes this period to be reflective of the full year.
PG440M	Local End Equipment ASDH 4x2Mbps Maintenance
	<u>Description</u>
	This PG captures the costs associated with maintenance of ASDH 4x2 Line systems, i.e. electronics equipment that can carry up to 4x2Mbps bearers.

Plant	Detailed Description and Methodology
Group	Detailed Description and Methodology
	<u>Methodology</u>
	The attribution of the PG costs to components is based on the number of circuits of different types that are carried over bearers that use these line systems and follows the attribution of the Capital costs (PG440C).
	This assumes that a line system with only (for example) private circuits connected to it has the same maintenance profile as the same line systems with only (for example) interconnect circuits. This assumption is consistent with BT's experience of maintenance in this area.
PG441C	Local End Equipment ASDH 16x2Mbps Equipment
	<u>Description</u>
	This PG captures the depreciation costs for ASDH 16x2 Bearer/Line systems, electronics equipment for a Bearer/Line System capacity of 16x2Mbps. Types of cost include depreciation, stores and pay costs.
	<u>Methodology</u>
	The attribution of the PG costs to components is based on the number of circuits of different types that are carried over bearers that use these Bearer/Line Systems.
	These line systems are used in the provision of 2Mbps private circuits, interconnection circuits, PPCs (Partial Private Clients) and ISDN30 and the PG costs are therefore attributed to the components that are used in the provision of these services.
	This PG apportions costs to multiple components, primarily CL189 (ISDN30 access) and CO439 (PC rentals 2Mbps local end fibre).
	Data Source/s
	The data source for the number of circuits is CTCS for Period 6 Management believes this period to be reflective of the full year.
PG441M	Local End Equipment ASDH 16x2Mbps Maintenance
	<u>Description</u>
	This PG captures the costs associated with maintenance of ASDH 16x2 Line systems, i.e. electronics equipment that can carry up to 16x2Mbps bearers.
	<u>Methodology</u>
	The attribution of the PG costs to components is based on the number of circuits of different types that are carried over bearers using these line systems and follows the attribution of the Capital costs (PG441C).
	Data Source/s
	Core Transmission Circuit Costing System (CTCS) for Period 6. Management believes this period to be reflective of the full year.
PG442C	Local End Equipment 2Mbps (Copper) Equipment
	<u>Description</u>
	This PG captures the depreciation costs for 2Mbps copper Bearer/Line systems, i.e. electronics equipment that supports 2Mbps circuits carried over copper pairs. The circuits are almost wholly 2Mbps private circuits, but there is a small number of interconnect circuits carried over copper.
	<u>Methodology</u>
	The attribution of the PG costs to components is based on the number of circuits of different types (obtained from CTCS) that are carried over bearers that use these line systems. As PG443C covers both 2Mbps and 4x2Mbps circuits, the volume of each type of circuit is weighted by the cost of the relevant electronics.

Plant Detailed Description and Methodology Group These line systems are used in the provision of 2Mbps private circuits, interconnection circuits, PPCs (Partial Private Circuits) and ISDN30 and the PG costs are therefore apportioned to the components that are used in the provision of these services. The PG costs are apportioned to multiple components pro-rata to these volumes, primarily CL189 (ISDN30 access) and CO438 (PC rentals 2Mbps local end (Copper). Data Source/s The data source for the number of circuits is CTCS. Circuit numbers are based on Period 6 and are believed by management to be representative of the full year. **PG442M** Local End Equipment 2Mbps (Copper) Maintenance Description This PG captures the maintenance costs for 2Mbps copper Bearer/Line systems, i.e. electronics equipment that supports 2Mbps circuits carried over copper pairs. The circuits are almost wholly 2Mbps Private Circuits, but a small number of interconnect circuits are carried over copper. **Methodology** The attribution of the PG costs to components is based on the number of circuits of different types (obtained from CTCS) that are carried over bearers that use these line systems. These line systems are used in the provision of 2Mbps private circuits, interconnection circuits, PPCs (Partial Private Clients) and SMDS (Switched Multimegabit Data Services) and the PG costs are therefore attributed to the components that are used in the provision of these services. This base follows the attribution of the Capital costs (see PG442C). This assumes that a line system with only (for example) private circuits connected to it has the same maintenance profile as the same line systems with only interconnect circuits (for example). This assumption is consistent with BT's experience of maintenance in this area. Data Source/s Powerhouse volumes and Core Transmission Circuit Costing System (CTCS) data for Period 6. Management believes this period to be reflective of the full year. **PG443C** Local End Equipment 2Mbps (Fibre) Equipment This PG captures the depreciation costs for 2Mbps Bearer/Line systems i.e. electronics equipment that supports 2Mbps circuits carried over fibre. The attribution of the PG costs to components is based on the number of circuits of different types (obtained from CTCS) that are carried over bearers that use these line systems. As PG443C covers both 2Mbps and 4x2Mbps circuits, the volume of each type of circuit is weighted by the cost of the relevant electronics. These line systems are used in the provision of 2Mbps private circuits, interconnection circuits, PPCs (Partial Private Circuits) and ISDN30 and the PG costs are therefore apportioned to the components that are used in the provision of these services. The PG costs are apportioned to multiple components pro-rata to these volumes, primarily CL189 (ISDN30 access) and CO439 (PC rentals 2Mbps local end fibre). Data Source/s The data source for the number of circuits is CTCS. Circuit numbers are based on Period 6 and are believed by management to be representative of the full year.

Plant	Detailed Description and Methodology
Group	
PG443M	Local End Equipment 2Mbps (Fibre) Maintenance
	<u>Description</u>
	This PG Captures the maintenance costs for 2Mbps Bearer/Line systems i.e. electronics equipment that supports 2Mbps circuits carried over fibre.
	<u>Methodology</u>
	The attribution of the PG costs to components is based on the number of circuits of different types (obtained from CTCS) that are carried over bearers that use these line systems. These line systems are used in the provision of 2Mbps private circuits, interconnection circuits, PPCs (Partial Private Clients) and SMDS (Switched Multimegabit Data Services) and the PG costs are therefore attributed to the components that are used in the provision of these services.
	This base follows the attribution of the Capital costs (see PG443C). This assumes that a line system with only (for example) private circuits connected to it has the same maintenance profile as the same line systems with only interconnect circuits (for example). This assumption is consistent with BT's experience of maintenance in this area.
	Data Source/s
	The data source for the number of circuits is CTCS. Circuit numbers are based on Period 6 and are believed by management to be representative of the full year.
PG444C	Local End Equipment 34Mbps Equipment
	<u>Description</u>
	This PG Captures the depreciation costs for 34Mbps Bearer/Line systems i.e. electronics equipment on which circuits with a bandwidth of up to and including 34Mbps can travel over.
	<u>Methodology</u>
	The attribution of the PG costs to components is based on the number of bandwidth specific circuits that are carried over 34Mbps bearers/Line Systems. These line systems are used to provide a medium for the circuits to travel over.
	CTCS holds a record of the total number of circuit types that use 34Mbps line systems. Circuits for 34Mbps and above are taken from CTCS circuit volumes, whereas the 2Mbps volumes are derived from the balance of total bearer volumes less the volume of 34Mbps and above circuits.
	It is necessary to take into account the different capacity utilisation of each circuit. A 34Mbps line system can support 1x34Mbps circuit or 16x2Mbps circuits. So for example the number of 2Mbps circuits is therefore weighted by a factor of 16, to reflect the capacity utilisation, and express the number of 2Mbps circuits in terms of their 34Mbps equivalent.
	This PG apportions costs to the components that are used in the provision of line system services, primarily CL189 (ISDN30 access), CO439 (PC rentals 2Mbps local end fibre) and CO432 (PC rentals 64Kbps link local end).
	Data Source/s
	CTCS. The circuit numbers are based on Period 6 and are believed by management to be representative of the full year.
PG444M	Local End Equipment 34Mbps Maintenance
	<u>Description</u>
	This PG captures the maintenance costs for 34Mbps Bearer/Line systems i.e. electronics equipment that supports 34Mbps circuits carried over fibre.

Plant Detailed Description and Methodology Group **Methodology** The attribution of the PG costs to components is based on the number of circuits of different types that are carried over bearers that use these line systems and follows the attribution of the capital costs (see PG444C). This assumes that a line system with only (for example) 2Mbps private circuits connected to it has the same maintenance profile as the same line system with only (for example) 34Mbps circuits. This assumption is consistent with BT's actual experience of maintenance in this area. Data Source/s CTCS. The circuit numbers are based on Period 6 and are believed by management to be representative of the full year. **PG445C Local End Equipment 140Mbps Equipment Description** This PG captures the depreciation costs for 140Mbps Bearer/Line systems i.e. electronics equipment on which circuits with a bandwidth of up to and including 140Mbps can travel over. Methodology The attribution of the PG costs to components is based on the number of bandwidth specific circuits that are carried over 140Mbps bearers/Line Systems. These line systems are used to provide a medium for the circuits to travel over. CTCS holds a record of the total number of circuit types that use 140Mbps line systems. Circuits for 34Mbps and above are taken from CTCS circuit volumes, whereas the 2Mbps volumes are derived from the balance of total bearer volumes less the volume of 34Mbps and above circuits. It is necessary to take into account the different capacity utilisation of each circuit. A 140Mbps line system can support one 140Mbps circuit or four 34Mbps circuits, or 63 2Mbps circuits, or some Combination of 34 and 2Mbps circuits. The number of 2Mbps interconnect circuits is therefore weighted by a factor of 63, to reflect the capacity utilisation, and express the number of 34Mbps circuits in terms of their 140Mbps equivalent. Similarly, the number of 34Mbps circuits is weighted by a factor of four. This PG apportions costs to the components that are used in the provision of line system services, primarily Co452 (Interconnect local end rental 2Mbps) and CO439 (PC rentals 2Mbps local end fibre). Data Source/s CTCS. The circuit numbers are based on Period 6 and are believed by management to be representative of the full year. **PG445M Local End Equipment 140Mbps Maintenance Description** This PG captures the maintenance costs for 140Mbps Bearer/Line systems i.e. electronics equipment that supports 140Mbps circuits carried over fibre. Methodology The attribution of the PG costs to components is based on the number of circuits of different types that are carried over bearers that use these line systems and follows the attribution of the Capital costs (see PG445C). This assumes that a line system with only 2Mbps private circuits connected to it has the same maintenance profile as the same line system with only 34Mbps circuits. This assumption is consistent with BT's experience of maintenance in this area.

Plant Group	Detailed Description and Methodology
	Data Source/s
	The data source for the number of circuits is CTCS.
	The circuit numbers are based on Period 6 and are believed by management to be representative of the full year.
PG446C	Local End Equipment 622Mbps Equipment
	<u>Description</u>
	This PG captures the costs for 622Mbps Bearer/Line systems i.e. electronics equipment on which circuits with a bandwidth of up to and including 622Mbps can travel over.
	<u>Methodology</u>
	The attribution of the PG costs to components is based on the number of bandwidth specific circuits that are carried over 622Mbps bearers/Line Systems.
	These line systems are used to provide a medium for the circuits to travel over and the PG costs are therefore attributed to the components that are used in the provision of these services.
	CTCS holds a record of the total number of circuit types that use 622Mbps line systems. Circuits for 34Mbps and above are taken from CTCS circuit volumes, whereas the 2Mbps volumes are derived from the balance of total bearer volumes less the volume of 34Mbps and above circuits.
	It is necessary to take into account the different capacity utilisation of each circuit. A 622Mbps line system can support one 622Mbps circuit, four 140Mbps circuits, 16 34Mbps circuits, or 252 2Mbps circuits, or some Combination of 140, 34 and 2Mbps circuits. The number of 2Mbps interconnect circuits is therefore weighted by a factor of 252, to reflect the capacity utilisation, and express the number of these circuits in terms of their 622Mbps equivalent.
	Similarly, the number of 140Mbps circuits is weighted by a factor of four and the number of 34Mbps circuits is weighted by a factor of 16. This PG apportions costs to CO452 (Interconnect local end rental 2Mbps) and CO439 (PC rentals 2Mbps local end fibre).
	Data Source/s
	The data source for the number of circuits is CTCS. The circuit numbers are based on Period 6 and are believed by management to be representative of the full year.
PG446M	Local End Equipment 622Mbps Maintenance
	<u>Description</u>
	This PG captures the maintenance costs for 622Mbps Bearer/Line systems, electronics equipment that supports 622Mbps circuits carried over fibre.
	<u>Methodology</u>
	The attribution of the PG costs to components is based on the number of circuits of different types that are carried over bearers that use these line systems and follows the attribution of the capital costs (see PG446C).
	This assumes that a line system with only (for example) 2Mbps private circuits connected to it has the same maintenance profile as the same line system with only (say) 34Mbps circuits. This assumption is consistent with BT's actual experience of maintenance in this area.
	CTCS holds a record of the total number of circuit types that use 622Mbps line systems. Circuits for 34Mbps and above are taken from CTCS circuit volumes, whereas the 2Mbps volumes are derived from the balance of total bearer volumes less the volume of 34Mbps and above circuits.
	It is necessary to take into account the different capacity utilisation of each circuit. A 622Mbps line system can support 1 622Mbps circuit, 4 140Mbps circuits, 16 34Mbps circuits, or 252 2Mbps circuits, or some Combination of 140, 34 and 2Mbps circuits. The number of 2Mbps

Plant	Detailed Description and Methodology
Group	
	interconnect circuits is therefore weighted by a factor of 252, to reflect the capacity utilisation, and express the number of these circuits in terms of their 622Mbps equivalent. Similarly, the number of 140Mbps circuits is weighted by a factor of 4 and the number of 34Mbps circuits is weighted by a factor of 16.
	Data Source/s
	CTCS. The circuit numbers are based on Period 6 and are believed by management to be representative of the full year.
PG447A	Ethernet Access Equipment
	<u>Description</u>
	This PG captures costs associated with the overheads associated with the rental costs of electronics used to provide Ethernet Access Direct (EAD) services, Wholesale Extension Services (WES), LAN Extension Services (LES), Ethernet services, Backhaul Extension Services (BES), Wholesale and LAN extension services and Optical Ethernet Services.
	<u>Methodology</u>
	Costs from this PG are allocated to CO485 (Ethernet Electronics).
PG448A	CCTV Rental
	<u>Description</u>
	This PG captures costs associated with the rental of CCTV circuits.
	<u>Methodology</u>
	Costs from this PG are allocated to CW617 (Other Ethernet rentals - CCTV).
PG448L	CCTV Connection
	<u>Description</u>
	This PG captures costs associated with the connection of CCTV circuits.
	<u>Methodology</u>
	Costs from this PG are allocated to CW619 (Other Ethernet new provides - CCTV).
PG449A	Ethernet Monitoring Platform
	<u>Description</u>
	This PG captures costs associated with an Internal Transfer Charge between Openreach and Global Services for an Ethernet Monitoring Platform.
	<u>Methodology</u>
	This PG allocates costs to component CO445 (Ethernet Monitoring Platform).
PG457A	Optical Ethernet Electronics Capital
	<u>Description</u>
	This PG captures costs associated with the direct operating costs and balance sheet values associated with the dedicated equipment for Optical Ethernet electronics rentals.
	<u>Methodology</u>
	This PG allocates costs to CO457 (Optical Ethernet Electronics Capital).
	I .

Plant Group	Detailed Description and Methodology
PG461A	Private Circuits Test and Maintenance System
	<u>Description</u>
	This PG captures the costs associated with Private Circuit maintenance and testing work carried out in the Work Manager Control Centres. It includes jeopardy management of jobs, Work Manager Helpdesk and administration costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CO461 (Private Circuit test system).
PG462A	Private Circuits Customer Premises
	<u>Description</u>
	This PG captures the cost of dealing with Private Circuit maintenance and faulting work in customer premises on analogue private circuits and access lines.
	<u>Methodology</u>
	Costs from this PG are allocated to CK982 (Openreach Managed Services for Enterprise).
PG463A	Private Circuits Testing
	<u>Description</u>
	This PG captures the cost of dealing with Private Circuit maintenance and testing carried out in the Work Manager Control Centres. It includes jeopardy management of jobs, Work Manager Helpdesk and administration costs. It also captures the cost of time spent by exchange maintenance people in co-operation with field people for line test in order to localise a fault.
	<u>Methodology</u>
	Costs from this PG are allocated to CK982 (Openreach Managed Services for Enterprise).
PG467A	EAD Electronics Capital
	<u>Description</u>
	This PG captures costs associated with the direct operating costs and balance sheet values associated with the dedicated equipment for EAD (Ethernet Access Direct) electronics rentals.
	<u>Methodology</u>
	Costs from this PG are allocated to CO487 (EAD Electronics Capital).
PG502B	SG&A Openreach Sales Product Management
	<u>Description</u>
	This PG captures the Profit and Loss (Current non-ETG Pay) and Balance Sheet (Fixed Asset, Gross Book Value (GBV) costs associated with Organisational Unit Code (OUC) BP. BP is the Sales and Product Management division of Openreach. As the various sub-teams support specific services, their costs cannot be spread on a Direct pay or revenue basis.
	<u>Methodology</u>
	Costs from this PG are allocated to CP502 (Openreach Sales Product Management).
PG511M	Interconnect OCP Maintenance
	<u>Description</u>
	This Plant Group captures the costs and balance sheet associated with Interconnecting with OCPs for building activity.

Plant Group	Detailed Description and Methodology
	<u>Methodology</u>
	Costs from this PG are allocated to CR470 (Intra Building Circuit (IBC) rental).
PG511P	Interconnect OCP Provision
	<u>Description</u>
	This PG captures provision costs specific to Interconnect Operational Capacity Planning (OCP) circuits. Interconnect OCP circuits are circuits which connect the BT Network to the networks of Other Communications Providers.
	<u>Methodology</u>
	This PG apportions costs based on the relative connection volumes of each of the Interconnect and Interconnect intra-building circuit (IBC) components it allocates to. We source these volumes from the Wholesale Customer Reporting System, which distinctly identifies the volumes for intra building circuits.
	This PG apportions costs to CR453 (Interconnect 2Mbps connection) and CR469 (Intra Building Circuit IBC Connection).
	<u>Data Source/s</u>
	Wholesale Customer Reporting System (WCR).
PG570B	OR Service Centre Provision Analogue/ISDN2
	<u>Description</u>
	This PG captures the cost and balance sheet of Service Centres for the Provision of Wholesale Line Rental (WLR) and ISDN2.
	<u>Methodology</u>
	Costs from this PG are allocated to CL570 (OR Service Centre - Provision Analogue/ISDN2).
PG571B	OR Service Centre Provision ISDN30
	<u>Description</u>
	This PG captures the cost and balance sheet Service Centre for the Provision of Wholesale Line Rental ISDN30.
	<u>Methodology</u>
	Costs from this PG are allocated to CL571 (OR Service Centre - Provision ISDN30).
PG572B	OR Service Centre Provision LLU
	<u>Description</u>
	This PG captures the cost and balance sheet Service Centre for the Provision of Wholesale Line Rental (WLR) Local Loop Unbundling.
	<u>Methodology</u>
	Costs from this PG are allocated to CL572 (OR Service Centre - Provision WLA).
PG573B	OR Service Centre Provision Ethernet
	<u>Description</u>
	This PG captures the cost and balance sheet Service Centre for the Provision of Ethernet.
	<u>Methodology</u>
	Costs from this PG are allocated to CL573 (OR Service Centre - Provision CISBO).

Plant Group	Detailed Description and Methodology
PG574B	OR Service Centre Provision NGA
	<u>Description</u>
	This PG captures the cost and balance sheet Service Centre for the Provision of Next Generation Access (NGA).
	<u>Methodology</u>
	Costs from this PG are allocated to CL574 (OR Service Centre - Provision GEA).
PG575B	OR Service Centre Assurance WLR PSTN/ISDN2
	<u>Description</u>
	This PG captures the cost and balance sheet Service Centre for the Assurance Wholesale Line Rental (WLR) PSTN/ISDN2.
	<u>Methodology</u>
	Costs from this PG are allocated to CL575 (OR Service Centre - Assurance Analogue/ISDN2).
PG576B	OR Service Centre Assurance WLR ISDN30
	<u>Description</u>
	This PG captures the cost and balance sheet Service Centre for the Assurance Wholesale Line Rental ISDN30.
	<u>Methodology</u>
	Costs from this PG are allocated to CL576 (OR Service Centre - Assurance WLR ISDN30).
PG577B	OR Service Centre Assurance LLU
	<u>Description</u>
	This PG captures the cost and balance sheet of assurance LLU costs associated with Organisational Unit Code (OUC) BV. BV is the Service division of Openreach. The teams within BV are primarily call centre based, with staff supporting the provisioning and repair of Openreach services. As the various teams support specific services, their costs cannot be spread on a direct pay or revenue basis.
	<u>Methodology</u>
	Costs from this PG are allocated to CL577 (OR Service Centre - Assurance WLA).
PG579B	OR Service Centre Assurance NGA
	<u>Description</u>
	This PG captures the cost and balance sheet of Assurance Next Generation Access (NGA).
	<u>Methodology</u>
	Costs from this PG are allocated to CL579 (OR Service Centre - Assurance GEA).
PG580B	Broadband Boost
	<u>Description</u>
	This PG captures the Openreach engineering costs associated with Broadband Boost jobs. Broadband Boost is a solution to improving speed, quality and reliability of customer's Broadband service.
	<u>Methodology</u>
	Costs from this PG are allocated to CO580 (Broadband Boost).

Plant Group	Detailed Description and Methodology
PG590B	Service Level Guarantees WLA External
	<u>Description</u>
	This PG captures costs associated with External WLA SLG costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL590 (SLG WLA External).
PG591B	Service Level Guarantees WLA Internal
	<u>Description</u>
	This PG captures costs associated with Internal LLU SLG costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL591 (SLG WLA Internal).
PG599A	Interconnect Outpayments Inland
	<u>Description</u>
	This PG captures the cost of Interconnect payments made to Other Communication Providers (OCPs).
	<u>Methodology</u>
	Costs from this PG are allocated to CB599 (Interconnect Payments to OLOs).
PG601B	SLG Ethernet Provision External
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments to CPs for Ethernet provision.
	<u>Methodology</u>
	Costs from this PG are allocated to CL601 (SLG Ethernet Provision External).
PG602B	SLG Ethernet Assurance External
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments to CPs for Ethernet assurance.
	<u>Methodology</u>
	Costs from this PG are allocated to CL602 (SLG Ethernet Assurance External).
PG603B	SLG WLR Provision External
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments to CPs for WLR provision.
	<u>Methodology</u>
	Costs from this PG are allocated to CL603 (SLG WLR Provision External).
PG604B	SLG WLR Assurance External
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments to CPs for WLR assurance.

Plant Group	Detailed Description and Methodology
	<u>Methodology</u>
	Costs from this PG are allocated to CL604 (SLG WLR Assurance External).
PG605B	SLG Ethernet Provision Internal
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments to CPs for Ethernet provision.
	<u>Methodology</u>
	Costs from this PG are allocated to CL605 (SLG Ethernet Provision Internal).
PG606B	SLG Ethernet Assurance Internal
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments to CPs for Ethernet assurance.
	<u>Methodology</u>
	Costs from this PG are allocated to CL606 (SLG Ethernet Assurance Internal).
PG607B	SLG WLR Provision Internal
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments to CPs for WLR provision.
	<u>Methodology</u>
	Costs from this PG are allocated to CL607 (SLG WLR Provision Internal).
PG611B	SLG WLR Assurance Internal
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments to CPs for WLR assurance.
	<u>Methodology</u>
	Costs from this PG are allocated to CL611 (SLG WLR Assurance Internal).
PG612B	IFRS 15 Deferred Revenue Internal
	<u>Description</u>
	This PG captures the deferred revenue relating to IFRS 15.
	<u>Methodology</u>
	Costs from this PG are allocated to CL612 (IFRS 15 Deferred Revenue Int).
PG613B	IFRS 15 SLG Internal
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments relating to IFRS 15.
	<u>Methodology</u>
	Costs from this PG are allocated to CL613 (IFRS 15 SLGs Int).

Plant Group	Detailed Description and Methodology
PG614B	IFRS 15 Deferred Revenue External
	<u>Description</u>
	This PG captures the deferred revenue relating to IFRS 15.
	<u>Methodology</u>
	Costs from this PG are allocated to CL614 (IFRS 15 Deferred Revenue Int).
PG615B	IFRS 15 SLG External
	<u>Description</u>
	This PG captures the costs associated with Service Level Guarantee payments relating to IFRS 15.
	<u>Methodology</u>
	Costs from this PG are allocated to CL615 (IFRS 15 SLGs Ext).
PG622A	Public Payphones Operations
	<u>Description</u>
	This Plant Groups (PG) captures the costs and balance sheet associated with the Openreach's maintenance of BT Retail Public Payphone kiosks.
	<u>Methodology</u>
	Costs from this PG are allocated to CR446 (Public Payphones - Operations).
PG622B	Public Payphones Operations (Openreach)
	<u>Description</u>
	This Plant Groups (PG) captures the Profit and Loss (P&L) and Balance Sheet costs associated with the Openreach's maintenance of BT Retail Public Payphone kiosks.
	<u>Methodology</u>
	Costs from this PG are allocated to CF446 (Public Payphones – Lines).
PG666A	TV Connect
	<u>Description</u>
	TVC provides headend capabilities for receiving, and optionally encoding, TV channels provided by an ISP. It then distributes the channels over 21C to the Openreach NGA interconnection points and consumes capacity from Openreach to deliver the channels to the ISP end users. The TV Connect traffic will be delivered across the end to end network over a separate logical path from the WBC data traffic. BT Enterprise will provide interfaces to support provision, repair, service monitoring and billing. For TVC costs BT Enterprise pays for dedicated (VLAN) capacity within 21C, connectivity to Openreach and for infrastructure in the TVC Headend.
	<u>Methodology</u>
	Allocation is 100% to the component CN666.
PG668A	IP Network Management
	<u>Description</u>
	This PG captures the costs of IP Network Management including all the costs associated with Operational Support Systems (OSS) – these are activities used to run the network and business. Typical activities that are part of OSS are taking a customer's order, configuring network components, logging and managing faults. The types of cost include pay and stores costs.

Plant Group	Detailed Description and Methodology
Group	Methodology
	Costs from this PG are allocated to CO668 (IP Network Management).
PG670A	IP Network Fixed Access
	<u>Description</u>
	This PG captures the cost of the following types of equipment:
	BTnet Direct and Flex NTE (Network Terminal Equipment) Routers, which connect the customer to the BT Network.
	BTnet Access Routers, which connect the MSIP (Multi Services Intranet Platform) and Synchronous Digital Hierarchy (SDH) access to the IP Network at Colossus PoPs (Point of Presences).
	<u>Methodology</u>
	Costs from this PG are allocated to CO670 (IP Network Fixed Access).
PG671A	IP Network VPN
	<u>Description</u>
	This PG captures the cost of the platform that delivers the following VPN products: Metro, Equip, and Internet Protocol (IP) Clear and Ethernet delivery services (e.g. Fusion and IP Clear).
	There are three main types of equipment in this platform:
	 Provider Edge Routers, used to terminate customer ports. Provider Router, used to route traffic through network. Catalyst Switch, used to aggregate traffic into a Provider router.
	Methodology
	Costs from this PG are allocated to CO671 (IP Network VPN).
PG672A	IP Network Broadband
	<u>Description</u>
	This PG captures the cost of the following types of equipment:
	 Remote Authentication Servers (RAS) (which connect Asymmetric Digital Subscriber Line (ADSL) users into IP cloud, for direct connection to the Internet Service Provider Home Gateways. Broadband Access Routers, which connect RAS into IP cloud. Broadband Service Provider Home Gateways.
	Methodology
	Costs from this PG are allocated to CO672 (IP Network Broadband).
PG674A	IP Core/Colossus
	<u>Description</u>
	This PG captures the cost of:
	Gigabit Core Routers.Catalyst LAN (Local Area Network).
	Switches that aggregate and link router ports from the IP back bone core.
	<u>Methodology</u>
	Costs from this PG are allocated to CO674 (IP Core Node Equipment).

Plant Group	Detailed Description and Methodology
PG675A	IP VOIP Infrastructure
	<u>Description</u>
	VoIP is a method of transporting speech over the internet.
	This PG captures the cost of the following types of equipment:
	Gigabit Routers - Gigabit Routers are high bandwidth switches, used for switching Internet traffic.
	Gateways and Access Routers are for transmitting voice over the IP Network.
	Costs include provision, extension, rearrangement and recovery of IP Networks by the Broadband and Data division in BT Enterprise.
	<u>Methodology</u>
	Costs from this PG are allocated to CO675 (IP VoIP Platform).
PG675B	Hosted Communications Services Infrastructure
	<u>Description</u>
	Hosted Centrex is an IP based telephony solution that replaces UK business' traditional ISDN & onsite PBX solution.
	This PG captures the cost of the following types of equipment:
	Gigabit Routers - Gigabit Routers are high bandwidth switches, used for switching Internet traffic.
	Gateways and Access Routers are for transmitting voice over the IP Network.
	Costs include provision, extension, rearrangement and recovery of IP Networks by the Broadband and Data division in BT Enterprise.
	<u>Methodology</u>
	Costs from this PG are allocated to CO676 (Hosted Communications Services).
PG678A	SIP Servers
	<u>Description</u>
	This PG captures the cost of the SIP server equipment. SIP is a signalling protocol used for establishing sessions in an IP network.
	<u>Methodology</u>
	Costs from this PG are allocated to CO678 (SIP Servers).
PG772A	Openreach Systems and Development (Product Specific)
	<u>Description</u>
	This Plant Group includes software development and capitalisation entries on the Profit and Loss and Balance Sheet relating to products for Openreach OUCs. This PG captures the cost of Research and Development (R&D) projects undertaken by Technology Service &
	Operations on behalf of Openreach that specifically relate to Openreach products. Development projects can range from high-level strategy down to operational and logistical development. Development project costs are apportioned according to the individual projects.
	<u>Methodology</u>
	We analyse the development projects that Technology Service & Operations do on behalf of Openreach. The projects that are specific to Openreach products are allocated to this plant group.
	Costs from the plant group are allocated to CL139, CL144 and CO772.

Plant Group	Detailed Description and Methodology					
	Data Source/s					
	Billing data from Technology Service & Operations.					
PG773A	Ethernet Systems Development					
	<u>Description</u>					
	This PG captures the cost of Research and Development (R&D) projects undertaken by Technology, Service & Operations on behalf of Openreach that specifically relate to Ethernet products. Development projects can range from high-level strategy down to operational and logistical development. Development project costs are apportioned according to the nature of the individual projects.					
	<u>Methodology</u>					
	We analyse the FAR for CoWs COMPS and COMPG for Openreach LoB. We use the "Asset Description" and "Subgroup Description" fields to ascertain which costs are proper to Ethernet.					
	This PG apportions all costs to CO772 (OR Systems & Development - Ethernet).					
	Data Source/s					
	Fixed Asset Register (FAR) for Class of Work COMPS & COMPG for Openreach.					
PG800A	Ofcom Licence Fee					
	<u>Description</u>					
	This PG captures the cost of our telecommunications licence fee, known as Ofcom Licence Fee. This is effectively a licence to operate and trade within the UK.					
	<u>Methodology</u>					
	This PG apportions cost based on relevant revenue in the financial year to CO800 (Ofcom Licence Fee – Wholesale) and CO801 (Ofcom Licence Fee – Openreach).					
PG855A	Border Gateway and Signalling Firewall					
	<u>Description</u>					
	This Plant Group (PG) captures the Capital costs of the Border Gateway and Signalling Firewall costs contained within Metro Nodes. The Border Gateway provides a connectivity point or POSI (Point of Service interconnect) for Other Communication Providers (OCPs) into the 21CN network.					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components.					
	Allocates 100% to the Border Gateway and Signalling Firewall component CN867.					
PG857A	Copper MSAN Combi Cards Broadband element					
	<u>Description</u>					
	This Plant Group (PG) captures the capital costs of the Broadband element of Combi Cards contained within Multi Service Access Nodes (MSANs). Line cards are the electronic cards in the exchange that provide connectivity to the switch.					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components.					
	Allocates 100% to CN854 (Combi Card Broadband).					

Plant Group	Detailed Description and Methodology						
PG859A	Copper MSAN Control Access						
	<u>Description</u>						
	This Plant Group (PG) captures the capital costs of the control and common elements of a Copper Multi Service Access Node (MSAN) that are relevant to line cards. Line cards are the electronic cards in the exchange that provide connectivity to the switch.						
	<u>Methodology</u>						
	The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.						
	Costs are apportioned to the line card components:						
	CN853 Combi Card and MSAN Access - Voice CN890 Broadband MSAN Access						
	<u>Data Source/s</u>						
	CAPEX analysis from BT Technology, Service & Operations (BT Technology), LoP list (Asset Life).						
	Volumes are from: GVF for calls, GVF, WELF and Technology for WBA.						
PG860A	Copper MSAN Control Transport						
	<u>Description</u>						
	This Plant Group (PG) captures the capital costs of the control and common elements of a MSAN that are relevant to the transport of calls or traffic through the switch.						
	<u>Methodology</u>						
	The control/common element of the Copper MSAN is exhausted to the traffic component that utilises the Copper MSAN.						
	The cost is allocated to component based on management's knowledge of the relationship between service and components.						
	Allocates 100% to CN890 (Broadband MSAN Access).						
PG861A	Copper MSAN ISDN30 cards						
	<u>Description</u>						
	This Plant Group (PG) captures the capital costs of ISDN30 contained within MSANs. Line cards are the electronic cards in the exchange that provide connectivity to the switch.						
	<u>Methodology</u>						
	The cost is allocated to component based on management's knowledge of the relationship between service and components. Allocates 100% to the 21CN ISDN30 component CN851.						
PG862A	Copper MSAN SDSL cards =<2Mbps						
	<u>Description</u>						
	This Plant Group (PG) captures the capital costs of SDSL contained within MSANs. Line cards are the electronic cards in the exchange that provide connectivity to the switch. Types of cost include depreciation, stores and pay costs.						
	<u>Methodology</u>						
	The cost is allocated to component based on management's knowledge of the relationship between service and components.						
	Costs are allocated to CN851 (21CN ISDN30).						

Detailed Description and Methodology

PG865A

Core-Core Length

Description

This Plant Group (PG) captures the Capital costs associated with transmission Length related elements (Duct and Fibre) between a Core Node and another Core Node.

Methodology

The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.

Because volume data used in the 21CN apportionment model contains a mixture of actual bandwidth used (such as for WBMC service volumes) and headline bandwidth sold (such as for downstream Ethernet service volumes), the Ethernet services have a factor applied to their volumes so that they also reflect actual utilisation. This utilisation factor is calculated separately for Harmonised Ethernet and MEAs services, and is based on detailed samples at selected exchanges. Technology regularly verify the volumes derived from these sample based assumptions by comparing against the total traffic over the 21C network.

This Plant Group uses the utilisation factors for the allocations to both Harmonised Ethernet and MEAs services.

This Plant Group allocates to EBDs by assuming that c2% of EBDs use metro-core and corecore links to provide resilience back to a single Metro for EBD, calculated based on historical estimates of the number of external resilient EBDs using metro/core transmission compared to the total number of EBDs. The need for the EBD allocation is due to each 'EBD site' being linked via a WDM chain to two metro nodes. In a small number of cases where resilience is required to Metro node 'A' the resilient link uses EBD to Metro node 'B' and then metro-core and core-core links back to Metro node 'A'.

To split EBD costs between resilience and extended reach, a weighting of costs is created by comparing the number of resilient lines for any EBDs that are not extended reach to the volume of extended reach resilient circuits.

For TVC, because the bandwidth volume loaded onto the residual TVC service is the total multicast bandwidth volume across the 21CN, the total volume will not be relevant to each individual part of the network. It is assumed that 11% of the total TVC volume is relevant to core transmission and is used in apportioning costs for this plant group. This is calculated based on the number of routes between each section of the network where TVC is multicast.

For Harmonised Ethernet and MEAs we include a product network turn-around factor, to reflect how all Ethernet traffic will not traverse the full core network. It is assumed that 100% of the traffic flows into the tier 1 Edge Ethernet Switches, but that a diminishing amount of Ethernet driven bandwidth flows over the Metro nodes, outer core nodes, and inner core nodes. This is calculated by comparing all Etherflow bandwidths' A end and B ends by location, with the % that does not flow from or to a metro node being used to reduce the factor applied for metro node plant groups, and the % of etherflows that do not reach outer and then inner core nodes being used to reduce the factor for core plant group apportionments.

The traffic components that are recipients are:

- CN906 Core-Core Broadband Transmission
- CN866 POSI POSI Length Voice
- CN879 Core Metro connectivity OR
- CN902 Metro Switching IP VPN
- CN617 Ethernet Backhaul Direct extended reach
- CN624 Ethernet Backhaul Direct Resilience Passive

Data Source/s

 ${\tt CAPEX\,analysis\,from\,BT\,Technology, Service\,\&\,Operations\,(BT\,Technology), LOPLIST\,(Asset\,Life)}$

Plant Detailed Description and Methodology Group Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TVC; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user; EBD volumes are sourced from GVF; Core to Core 10Gbit/s Links are sourced from Discoverer. **PG866A Core-Core Link Description** This Plant Group (PG) captures the Capital costs associated with transmission electronics between a Core Node and another Core Node. Methodology The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components. Because volume data used in the 21CN apportionment model contains a mixture of actual bandwidth used (such as for WBMC service volumes) and headline bandwidth sold (such as for downstream Ethernet service volumes), the Ethernet services have a factor applied to their volumes so that they also reflect actual utilisation. This utilisation factor is calculated separately for Harmonised Ethernet and MEAs services, and is based on detailed samples at selected exchanges. Technology regularly verify the volumes derived from these sample based assumptions by comparing against the total traffic over the 21C network. This Plant Group uses the utilisation factors for the allocations to both Harmonised Ethernet and MEAs services. This Plant Group allocates to EBDs by assuming that c2% of EBDs use metro-core and corecore links to provide resilience back to a single Metro for EBD, calculated based on historical estimates of the number of external resilient EBDs using metro/core transmission compared to the total number of EBDs. The need for the EBD allocation is due to each 'EBD site' being linked via a WDM chain to two metro nodes. In a small number of cases where resilience is required to Metro node 'A' the resilient link uses EBD to Metro node 'B' and then metro-core and core-core links back to Metro node 'A'. To split EBD costs between resilience and extended reach, a weighting of costs is created by comparing the number of resilient lines for any EBDs that are not extended reach to the volume of extended reach resilient circuits. For TVC, because the bandwidth volume loaded onto the residual TVC service is the total multicast bandwidth volume across the 21CN, the total volume will not be relevant to each individual part of the network. It is assumed that 11% of the total TVC volume is relevant to core transmission and is used in apportioning costs for this plant group. This is calculated based on the number of routes between each section of the network where TVC is multicast. For Harmonised Ethernet and MEAs we include a product network turn-around factor, to reflect how all Ethernet traffic will not traverse the full core network. It is assumed that 100% of the traffic flows into the tier 1 Edge Ethernet Switches, but that a diminishing amount of Ethernet driven bandwidth flows over the Metro nodes, outer core nodes, and inner core nodes. This is calculated by comparing all Etherflow bandwidths' A end and B ends by location, with the % that does not flow from or to a metro node being used to reduce the factor applied for metro node plant groups, and the % of etherflows that do not reach outer and then inner core nodes being used to reduce the factor for core plant group apportionments The traffic components that are recipients are: • CN906 Core-Core Broadband Transmission CN879 Core Metro connectivity OR • CN865 POSI - POSI Link Voice CN902 Metro Switching IP VPN

Detailed Description and Methodology

- CN617 Ethernet Backhaul Direct extended reach
- CN623 Ethernet Backhaul Direct Resilience Active

Data Source/s

CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)

Volumes are from: GVF for Calls; GVF and WELF for copper and fibre shared WBMC; GVF for TVC; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user; EBD volumes are sourced from GVF; Core to Core 10Gbit/s Links are sourced from Discoverer.

PG867A

Ethernet NTE

Description

This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the customer sited Ethernet NTE. This is where the BT line from the exchange terminates and allows the customers' equipment to be connected. Ethernet is the most widely-installed Local Area Network (LAN) technology.

<u>Methodology</u>

The cost is allocated to component based on management's knowledge of the relationship between service and components. Allocates 100% to CN902 (Metro Switching IP VPN).

PG868A

Core - Core WBMC Dedicated

Description

This Plant Group (PG) captures the Capital costs associated with transmission electronics and length related elements between a Core Node and another Core Node for dedicated core link and length traffic, which are only relevant to WBMC dedicated services and do not share their transmission with other services such as WBMC shared.

Methodology

The cost is allocated to component based on management's knowledge of the relationship between service and components.

Allocates 100% to CN897 (WBMC Dedicated Link).

PG869A

Fibre MSAN Control Access

Description

This Plant Group (PG) captures the Capital costs of the Control and common elements of a FMSAN that are relevant to the transport of calls or traffic through the switch.

<u>Methodology</u>

The control/common element of the FMSAN is exhausted to the traffic and calls components that utilise the Copper MSAN. The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.

The traffic components that are recipients are:

- CN890 Broadband MSAN Access
- CN861 MSAN POSI Link Voice

Plant Group	Detailed Description and Methodology					
Спопр	Data Source/s					
	CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)					
	Volumes are from: GVF for Calls; GVF, WELF and Technology for WBA					
PG875A	iNode Network Features					
	<u>Description</u>					
	This Plant Group (PG) captures the Capital costs of Network Features functionality contained within iNode. The iNode represents the part of the network that contains intelligence associated with routing, verifying and controlling end to end service. Line cards are the electronic cards in the exchange that provide connectivity to the switch.					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components. Allocates 100% to CN855 (iNode Features).					
PG876A	iNode Voice Call Set-Up					
	<u>Description</u>					
	This Plant Group (PG) captures the Capital costs of Voice Call Set-Up functionality contained within iNode. The iNode represents the part of the network that contains intelligence associated with routing, verifying and controlling end to end service. Line cards are the electronic cards in the exchange that provide connectivity to the switch.					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components.					
	Allocates 100% to CN868 (iNode Voice Call Set-Up).					
PG878A	Metro Broadband LNS					
	<u>Description</u>					
	This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the BB LNS. The L2TP (Tunnelling Protocol) Network Server is the Layer 2 Network Server.					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components.					
	Allocates 100% to CN904 (21C BB Service provider Link).					
PG880A	Metro Broadband Edge Aggregator					
	<u>Description</u>					
	This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the BEA.					
	BEAs are deployed across 21CN Core Point of Presence (PoP).					
	A BEA is essentially the device which a Communication Provider (CP) will interface to, in order to aggregate its traffic from the Broadband Remote Access Server (BRAS) located within a PoP. Initially a BEA will aggregate a single Logical PoP or 8 BRAS'.					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components. Allocates 100% to CN860 Core/Metro (broadband).					

Plant Group	Detailed Description and Methodology					
PG881A	Metro Broadband Remote Access Server and MSE					
	<u>Description</u>					
	This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the BRAS. BRAS routes traffic to and from the digital subscriber line access multiplexers (DSLAM) on an Internet service provider's (ISP) network. The BRAS sits at the core of an ISP's network, and aggregates user sessions from the access network.					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components.					
	Allocates 100% to CN889 (Metro BRAS and MSE).					
PG882A	Metro Front End Router (FER)					
	<u>Description</u>					
	This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the FER.					
	The FERs are used to connect to Communications Providers (CPs) for the Aggregated Wholesale Broadband Managed Connect (WBMC) service. They provide load-balancing and shaping/policing functions.					
	Traffic from the Core to the L2 MPLS (Multi-Protocol Label Switching) network via the FERs will be over L2TP (Tunnelling Protocol) tunnels (for L2TP Pass through).					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components.					
	Allocates 100% to CN904 (21CN broadband service provider link).					
PG885A	Metro-Core Length					
	<u>Description</u>					
	This Plant Group (PG) captures the Capital costs associated with transmission length related elements (Duct and Fibre) between a Metro Node and a Core Node.					
	<u>Methodology</u>					
	The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.					
	Because volume data used in the 21CN apportionment model contains a mixture of actual bandwidth used (such as for WBMC service volumes) and headline bandwidth sold (such as for downstream Ethernet service volumes), the Ethernet services have a factor applied to their volumes so that they also reflect actual utilisation. This utilisation factor is calculated separately for Harmonised Ethernet and MEAs services, and is based on detailed samples at selected exchanges. Technology regularly verify the volumes derived from these sample based assumptions by comparing against the total traffic over the 21C network.					
	This Plant Group uses the utilisation factors for the allocations to both Harmonised Ethernet and MEAs services.					
	This Plant Group allocates to EBDs by assuming that c2% of EBDs use metro-core and corecore links to provide resilience back to a single Metro for EBD, calculated based on historical estimates of the number of external resilient EBDs using metro/core transmission compared to the total number of EBDs. The need for the EBD allocation is due to each 'EBD site' being linked via a WDM chain to two metro nodes. In a small number of cases where resilience is					

Detailed Description and Methodology

required to Metro node 'A' the resilient link uses EBD to Metro node 'B' and then metro-core and core-core links back to Metro node 'A'.

To split EBD costs between resilience and extended reach, a weighting of costs is created by comparing the number of resilient lines for any EBDs that are not extended reach to the volume of extended reach resilient circuits.

For TVC, because the bandwidth volume loaded onto the residual TVC service is the total multicast bandwidth volume across the 21CN, the total volume will not be relevant to each individual part of the network. It is assumed that 14% of the total TVC volume is relevant to metro transmission and is used in apportioning costs for this plant group. This is calculated based on the number of routes between each section of the network where TVC is multicast.

For Harmonised Ethernet and MEAs we include a product network turn-around factor, to reflect how all Ethernet traffic will not traverse the full core network. It is assumed that 100% of the traffic flows into the tier 1 Edge Ethernet Switches, but that a diminishing amount of Ethernet driven bandwidth flows over the Metro nodes, outer core nodes, and inner core nodes. This is calculated by comparing all Etherflow bandwidths' A end and B ends by location, with the % that does not flow from or to a metro node being used to reduce the factor applied for metro node plant groups, and the % of etherflows that do not reach outer and then inner core nodes being used to reduce the factor for core plant group apportionments.

The traffic components that are recipients are:

- CN617 EBD Extended Reach.
- CN624 Ethernet Backhaul Direct Resilience Passive.
- CN903 Metro-Core Broadband Xmsn
- CN862 MSAN POSI Dense Length Voice.
- CN879 Core Metro connectivity OR.
- CN902 Metro Switching IP VPN.

Data Source/s

CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)

Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TVC; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user; EBD volumes are sourced from GVF; Metro to Core 10Gbit/s Links are sourced from Discoverer.

PG886A

Metro-Core Link

Description

This Plant Group (PG) captures the Capital costs associated with transmission electronics between a Metro Node and a Core Node.

<u>Methodology</u>

The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.

Because volume data used in the 21CN apportionment model contains a mixture of actual bandwidth used (such as for WBMC service volumes) and headline bandwidth sold (such as for downstream Ethernet service volumes), the Ethernet services have a factor applied to their volumes so that they also reflect actual utilisation. This utilisation factor is calculated separately for Harmonised Ethernet and MEAs services, and is based on detailed samples at selected exchanges. Technology regularly verify the volumes derived from these sample based assumptions by comparing against the total traffic over the 21C network.

Detailed Description and Methodology

This Plant Group uses the utilisation factors for the allocations to both Harmonised Ethernet and MEAs services.

This Plant Group allocates to EBDs by assuming that c2% of EBDs use metro-core and corecore links to provide resilience back to a single Metro for EBD, calculated based on historical estimates of the number of external resilient EBDs using metro/core transmission compared to the total number of EBDs. The need for the EBD allocation is due to each 'EBD site' being linked via a WDM chain to two metro nodes. In a small number of cases where resilience is required to Metro node 'A' the resilient link uses EBD to Metro node 'B' and then metro-core and core-core links back to Metro node 'A'.

To split EBD costs between resilience and extended reach, a weighting of costs is created by comparing the number of resilient lines for any EBDs that are not extended reach to the volume of extended reach resilient circuits.

For TVC, because the bandwidth volume loaded onto the residual TVC service is the total multicast bandwidth volume across the 21CN, the total volume will not be relevant to each individual part of the network. It is assumed that 14% of the total TVC volume is relevant to metro transmission and is used in apportioning costs for this plant group. This is calculated based on the number of routes between each section of the network where TVC is multicast.

For Harmonised Ethernet and MEAs we include a product network turn-around factor, to reflect how all Ethernet traffic will not traverse the full core network. It is assumed that 100% of the traffic flows into the tier 1 Edge Ethernet Switches, but that a diminishing amount of Ethernet driven bandwidth flows over the Metro nodes, outer core nodes, and inner core nodes. This is calculated by comparing all Etherflow bandwidths' A end and B ends by location, with the % that does not flow from or to a metro node being used to reduce the factor applied for metro node plant groups, and the % of etherflows that do not reach outer and then inner core nodes being used to reduce the factor for core plant group apportionments.

The traffic components that are recipients are:

- CN617 (EBD Extended Reach).
- CN623 (Ethernet Backhaul Direct Resilience Active).
- CN903 (Metro-Core Broadband Transmission).
- CN861 (MSAN POSI Voice Link).
- CN879 (Core Metro Connectivity OR).
- CN902 (Metro Switching IP VPN).

Data Source/s

CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)

Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TVC; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user; EBD volumes are sourced from GVF; Metro to Core 10Gbit/s Links are sourced from Discoverer.

PG887A

METRO-Edge Ethernet Bandwidth

Description

This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the Edge Ethernet Bandwidth.

The Edge Ethernet Bandwidth is used to groom Virtual Local Area Networks (VLANs) from the Multi-Service Access Nodes (MSANs) to the relevant Metro device such as the Voice PE using Pseudo-Wire Emulation (PWE) tunnels (across the core if necessary). It is also used to provide point to point connectivity for Broadband traffic via Pseudo-Wire Emulation Edge to Edge (PWE3) tunnels.

Detailed Description and Methodology

Methodology

The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.

Because volume data used in the 21CN apportionment model contains a mixture of actual bandwidth used (such as for WBMC service volumes) and headline bandwidth sold (such as for downstream Ethernet service volumes), the Ethernet services have a factor applied to their volumes so that they also reflect actual utilisation. This utilisation factor is calculated separately for Harmonised Ethernet and MEAs services, and is based on detailed samples at selected exchanges. Technology regularly verify the volumes derived from these sample based assumptions by comparing against the total traffic over the 21C network.

This Plant Group uses the utilisation factors for the allocations to both Harmonised Ethernet and MEAs services.

The apportionment from this Plant Group to MSIL 1Gbit/s and MSIL 10Gbit/s include an assumption that half of the links are resilient and that not all links are fully utilised (assumes 70% utilisation).

For TVC, because the bandwidth volume loaded onto the residual TVC service is the total multicast bandwidth volume across the 21CN, the total volume will not be relevant to each individual part of the network. It is assumed that 75% of the total TVC volume is relevant to EBD transmission and is used in apportioning costs for this plant group. This is calculated based on the number of routes between each section of the network where TVC is multicast.

For Harmonised Ethernet and MEAs we include a product network turn-around factor, to reflect how all Ethernet traffic will not traverse the full core network. It is assumed that 100% of the traffic flows into the tier 1 Edge Ethernet Switches, but that a diminishing amount of Ethernet driven bandwidth flows over the Metro nodes, outer core nodes, and inner core nodes. This is calculated by comparing all Etherflow bandwidths' A end and B ends by location, with the % that does not flow from or to a metro node being used to reduce the factor applied for metro node plant groups, and the % of etherflows that do not reach outer and then inner core nodes being used to reduce the factor for core plant group apportionments.

The components that are recipients are:

- · CN860 Core/Metro (broadband).
- CN869 Core/Metro (voice).
- CN902 Metro Switching IP VPN.
- CN905 Multi Service Interconnect Link.

Data Source/s

 ${\sf CAPEX}\ analysis\ from\ {\sf BT}\ {\sf Technology}, {\sf Service}\ \&\ {\sf Operations}\ ({\sf BT}\ {\sf Technology}), {\sf LOPLIST}\ ({\sf Asset}\ {\sf Life}).$

Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TVC; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user; MSIL from OneSiebel and WCR.

PG888A

METRO-Edge Ethernet Port

Description

This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the Edge Ethernet Port.

The Edge Ethernet Port terminates:

- VLAN Virtual Local Area Networks
- MSIL Multi Service Interconnect Link

Detailed Description and Methodology

• Ethernet service

Methodology

The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.

For TVC, because the bandwidth volume loaded onto the residual TVC service is the total multicast bandwidth volume across the 21CN, the total volume will not be relevant to each individual part of the network. It is assumed that 75% of the total TVC volume is relevant to EBD transmission and is used in apportioning costs for this plant group. This is calculated based on the number of routes between each section of the network where TVC is multicast.

The components that are recipients are:

- CN883 Edge Ethernet ports voice
- CN884 Edge Ethernet ports broadband
- CN885 Edge Ethernet ports TVC
- CN902 Metro Switching IP VPN
- CN905 Multi Service Interconnect Link

Data Source/s

CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)

Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TVC; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user; MSIL from OneSiebel and WCR.

PG889A

Metro-Infrastructure Ethernet

Description

This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the Infrastructure Ethernet.

The infrastructure switches are used to provide basic fast, Gigabit and 10 Gigabit Ethernet connectivity within a metro node and Intelligent Node (iNode) function.

They are used to give efficient port utilisation on the expensive PE (Provider Edge) router Ethernet interfaces and because they provide higher port densities for low-speed interfaces than are typically available on PE routers. The switches are not customer-facing and therefore do not require complex edge features or Virtual Private LAN Services (VPLS) capabilities.

<u>Methodology</u>

The cost is allocated to component based on management's knowledge of the relationship between service and components.

Allocates 100% to CN860 Core/Metro (broadband).

Data Source/s

- CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)
- Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TVC.

Plant Detailed Description and Methodology Group **PG893A Multi Service Provider Edge Routers Description** This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the Voice Router. The PE (Provider Edge) routers provide the customer interfaces to the Internet Protocol (IP) / Multi-Protocol Label Switching (MPLS) network, receiving customer traffic and encapsulating it as MPLS frames for transmission across the core of the network. Methodology he depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components. Because volume data used in the 21CN apportionment model contains a mixture of actual bandwidth used (such as for WBMC service volumes) and headline bandwidth sold (such as for downstream Ethernet service volumes), the Ethernet services have a factor applied to their volumes so that they also reflect actual utilisation. This utilisation factor is calculated separately for Harmonised Ethernet and MEAs services, and is based on detailed samples at selected exchanges. Technology regularly verify the volumes derived from these sample based assumptions by comparing against the total traffic over the 21C network. This Plant Group uses the utilisation factors for the allocations to both Harmonised Ethernet and MEAs services. PE Routers are located in all Metro nodes, but have dual purposes. In smaller Metro nodes they act as the management router to all services, whereas in the large metro nodes they are used more specifically for the WBMC shared services. We therefore double the WBMC services' usage factor in order to reflect this dual purpose. The components that are recipients are: CN869 Core/Metro (voice) • CN860 Core/Metro (broadband) CN902 Metro Switching IP VPN Data Source/s CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TV; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user. **PG895A Network Router (large) Core** Description This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the P Router. The P Routers in the Core nodes (Provider routers) form the core of the network, aggregating traffic from a number of Provider Edge (PE) routers and connecting to Prouters in other Point of Presence (PoP) across wide-area transmission links. **Methodology** The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The

Detailed Description and Methodology

cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.

Because volume data used in the 21CN apportionment model contains a mixture of actual bandwidth used (such as for WBMC service volumes) and headline bandwidth sold (such as for downstream Ethernet service volumes), the Ethernet services have a factor applied to their volumes so that they also reflect actual utilisation. This utilisation factor is calculated separately for Harmonised Ethernet and MEAs services, and is based on detailed samples at selected exchanges. Technology regularly verify the volumes derived from these sample based assumptions by comparing against the total traffic over the 21C network.

This Plant Group uses the utilisation factors for the allocations to both Harmonised Ethernet and MEAs services.

Network element 'METRO/CORE-P Router: Intra Node' is split between PG895A and PG896A based on the number of core to core links compared to the number of metro to core links in the 21C network.

For WBC/WBMC traffic that uses a VPN pathway rather than WBMC shared in Market B, a factor is applied to reduce the bandwidth volume used in the Plant Group to Component apportionment to represent how not all bandwidth uses core transmission. This is because a VPN solution can bypass elements of the core network for Market B traffic, e.g. it can be directed to core nodes before metro nodes. A factor representing the core nodes as a % of total nodes is applied to the VPN based bandwidth in order to reflect its lower usage of core transmission.

For TVC, because the bandwidth volume loaded onto the residual TVC service is the total multicast bandwidth volume across the 21CN, the total volume will not be relevant to each individual part of the network. It is assumed that 75% of the total TVC volume is relevant to EBD transmission and 11% is relevant to core transmission. This is calculated based on the number of routes between each section of the network where TVC is multicast.

For Harmonised Ethernet and MEAs we include a product network turn-around factor, to reflect how all Ethernet traffic will not traverse the full core network. It is assumed that 100% of the traffic flows into the tier 1 Edge Ethernet Switches, but that a diminishing amount of Ethernet driven bandwidth flows over the Metro nodes, outer core nodes, and inner core nodes. This is calculated by comparing all Etherflow bandwidths' A end and B ends by location, with the % that does not flow from or to a metro node being used to reduce the factor applied for metro node plant groups, and the % of etherflows that do not reach outer and then inner core nodes being used to reduce the factor for core plant group apportionments.

The components that are recipients are:

- · CN894 Core/Metro (broadband Shared)
- · CN869 Core/Metro (voice)
- CN902 Metro Switching IP VPN

Data Source/s

CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)

Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TV; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user.

PG896A

Network Router Metro

Description

This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the P Router.

Detailed Description and Methodology

The P Routers in the METRO nodes (Provider Routers) form the core of the network, aggregating traffic from a number of Provider Edge (PE) Routers and connecting to P Routers in other Point of Presence (PoP) across wide-area transmission links.

Methodology

The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.

Because volume data used in the 21CN apportionment model contains a mixture of actual bandwidth used (such as for WBMC service volumes) and headline bandwidth sold (such as for downstream Ethernet service volumes), the Ethernet services have a factor applied to their volumes so that they also reflect actual utilisation. This utilisation factor is calculated separately for Harmonised Ethernet and MEAs services, and is based on detailed samples at selected exchanges. Technology regularly verify the volumes derived from these sample based assumptions by comparing against the total traffic over the 21C network.

This Plant Group uses the utilisation factors for the allocations to both Harmonised Ethernet and MEAs services.

Network element 'METRO/CORE-P Router: Intra Node' is split between PG895A and PG896A based on the number of core to core links compared to the number of metro to core links in the 21C network.

For TVC, because the bandwidth volume loaded onto the residual TVC service is the total multicast bandwidth volume across the 21CN, the total volume will not be relevant to each individual part of the network. It is assumed that 75% of the total TVC volume is relevant to EBD transmission and is used in apportioning costs for this plant group. This is calculated based on the number of routes between each section of the network where TVC is multicast.

The components that are recipients are:

- · CN860 Core/Metro (broadband)
- · CN869 Core/Metro (voice)
- CN902 Metro Switching IP VPN

Data Source/s

CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)

Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TV; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user.

PG898A

Core Directors

Description

This Plant Group (PG) captures the cost of capital expenditure incurred for the deployment of the 21C Core Directors which are used to carry former MSIP data traffic as the MSIP Platform is closed.

The components that are recipients are:

- · CN878 Core Directors broadband
- · CN869 Core/Metro (voice)

Methodology

The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The

Plant Group	Detailed Description and Methodology					
	cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.					
	Data Source/s					
	CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)					
	Volumes are from: GVF for Calls; WCR for IPstream.					
PG899A	WDM-Metro Link					
	<u>Description</u>					
	This Plant Group captures the Capital costs associated with transmission electronics between WDM Multi Service Access Node (MSAN) and a Metro Node.					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components.					
	Allocates 100% to the Ethernet Backhaul Direct component CN619 (Underlying Broadband EBD Costs).					
PG900A	WDM-Metro Length					
	<u>Description</u>					
	This Plant Group (PG) captures the Capital costs associated with transmission length related elements (Duct and Fibre) between WDM Multi Service Access Node (MSAN) and a Metro Node.					
	<u>Methodology</u>					
	The cost is allocated to component based on management's knowledge of the relationship between service and components.					
	Allocates 100% to CN620 (Underlying Broadband EBD Costs).					
PG901A	Ethernet Switches					
	<u>Description</u>					
	This Plant Group (PG) captures the Capital costs associated with Ethernet Switches.					
	<u>Methodology</u>					
	The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.					
	Because volume data used in the 21CN apportionment model contains a mixture of actual bandwidth used (such as for WBMC service volumes) and headline bandwidth sold (such as for downstream Ethernet service volumes), the Ethernet services have a factor applied to their volumes so that they also reflect actual utilisation. This utilisation factor is calculated separately for Harmonised Ethernet and MEAs services, and is based on detailed samples at selected exchanges. Technology regularly verify the volumes derived from these sample based assumptions by comparing against the total traffic over the 21C network.					
	This Plant Group uses the utilisation factors for the allocations to both Harmonised Ethernet and MEAs services.					
	For TVC, because the bandwidth volume loaded onto the residual TVC service is the total multicast bandwidth volume across the 21CN, the total volume will not be relevant to each individual part of the network. It is assumed that 75% of the total TVC volume is relevant to					

Detailed Description and Methodology

EBD transmission and is used in apportioning costs for this plant group. This is calculated based on the number of routes between each section of the network where TVC is multicast.

The components that are recipients are:

- · CN861 MSAN POSI Link Voice.
- CN882 High band customer data card.
- CN891 Fthernet Switch BB.

Data Source/s

CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)

Volumes are from: GVF for Calls; GVF and WELF for WBA; GVF for TV; for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user.

PG902A

Ethernet Switch Access Cards

Description

This Plant Group (PG) captures the Capital costs of Ethernet Switch Customer Access Cards contained within Ethernet Switch.

Line cards are the electronic cards in the exchange that provide connectivity to the switch.

The components that are recipients are:

- CN882 High band customer data card
- CN896 Ethernet Switch BB Access
- CN890 Broadband MSAN Access

Methodology

The depreciation cost of the network element is apportioned across the services which it supports based on the volumes applicable to each service using the network element. The cost now allocated to each service is split between the components based on management's knowledge of the relationship between service and components.

Data Source/s

CAPEX analysis from BT Technology, Service & Operations (BT Technology), LOPLIST (Asset Life)

Volumes are from: GVF and WELF for WBA, for HE/MEAs circuits are sourced from GVF, the number of bandwidth and circuit ends are sourced from PACs, and then CUG ID data (customer ID code from MIS system) and status data of circuit orders from Enterprise Information Oracle Platform (EIP) are used to provide the etherways and the class of service for the PWE3 etherflows in order to show bandwidth per end user.

PG903A

Metro MAR

Description

This Plant Group holds the costs for the Multicast Access Router (MAR) which includes all of the TV Connect (TVC) head end equipment sited at central core node exchanges.

Methodology

The cost is allocated to component based on management's knowledge of the relationship between service and components.

Allocates 100% to CN886 (Metro MAR).

Plant Group	Detailed Description and Methodology				
PG911A	Operator Services Inland				
	<u>Description</u>				
	This PG captures the pay and non-pay costs of operators working on Inland Operator Assistance (OA) 100 and 999 calls. Customers dial 100 (OA) and speak to an Operator if they require help making a call.				
	<u>Methodology</u>				
	This PG apportions costs by creating a weighting for each cost type based on average total operator handling time and volume of calls for both services (100 and 999 calls) which we source from various data sources (see below)				
	This PG apportions costs to the Operator Assistance components:				
	 CO911 (National Operator Assistance) CO912 (International Operator Assistance) CO919 (Emergency operator assistance (999)) CO941 (National OA non chargeable) CO942 (Emergency OA - 999 non chargeable) 				
	<u>Data Source/s</u>				
	Inland and International Directory Assistance (DA)				
	 Central Data Store (CDS) Call Statistics Centralisation System (CSCS) and Featurenet (from the Powerhouse system) Inland and International Operator Assistance (OA) Call Centre Management Information Systems (CCMIS) CSCS (for Retail chargeable) 6A Report (for Wholesale Chargeable) 				
PG941A	Cumulo Rates NGA				
	<u>Description</u>				
	This Plant Group (PG) includes the Cumulo charge payable for the NGA (Next Generation Access) assets.				
	<u>Methodology</u>				
	The Cumulo costs in this Plant Group are allocated 100% to CL941 - Cumulo Rates NGA				
	The Cumulo charge is apportioned to the NGA services only on the basis of Profit Weighted Net Replacement Costs (PWNRC). A base is derived for apportionment of the Cumulo charge to services in accordance with the following formula:				
	$Cumall_{i=}NGACC \times \left(\begin{array}{c} \sum_{j=1}^{m} nrc_{ij} land \%_{j} wacc_{i} \\ / \sum_{i=1}^{n} \sum_{j=1}^{m} nrc_{ij} land \%_{j} wacc_{i} \end{array}\right)$				
	Where: Cumall _i = the allocation of the Non NGA BT Enterprise related Cumulo costs to service				
	NGACC = NGA related Cumulo costs nrc = the Net Replacement Costs of the Cumulo Rateable Asset that has been				
	attributed to service				
	land% = the percentage of the Cumulo Rateable Asset, that is regarded as being a				
	landlord asset within the most recent rating model used by the Valuation Office Agency in England and Wales to value BT's Cumulo assessment wacc _i = the weighted average cost of capital that is applicable for service _i m = the number of the Cumulo Rateable Asset categories n = the number of the NGA Network Services				

Detailed Description and Methodology

Specialised Buildings are not part of BT's fixed assets following their sale to what is now Telereal Trillium in 2001. However BT is the rateable occupier of these assets so they need to be included. The NRCs of exchange buildings are updated every year by Telereal Trillium.

The Specialised Building NRC value is apportioned to the NGA components in accordance with Group Property's charges for the Occupation of Specialised Buildings. A report from CostPerform is produced which shows the Group Property charges apportioned by component and this is then used as the basis for apportioning the Specialised Buildings NRC to NGA components.

The table below is a list of the Classes of Work that contain the Rateable Assets:

CoW CoW Title				
CoW				
ACPA	Accommodation Plant for ASD			
ACPB	Accommodation Plant, Building Related (FAR)			
ACPS	Accommodation Plant, Security			
AFH	ACP Freehold – ACPFH			
ALL	ACP Longlease – ACPLL			
ASL	ACP Shortlease – ACPSL			
BCB	Buildings Construction, New (FAR)			
BCR	Buildings Construction , Refurbishment (FAR)			
BCS	Buildings Construction, Security			
BFH	Building Freehold – BLDFH			
BHQ	Construction, Submarine Cable Inland			
BLL	Buildings Long Lease - BLDLL			
BP	Building Purchases			
BSL	Buildings Shortlease – BLDSL			
CJC	Construction, Junction Metallic Pair Cable			
CJCR	Renewal, Junction Metallic Pair Cable			
CJD	Construction, Junction Duct			
CJDR	Renewal, Junction Duct			
CJF	Construction, Junction Cable – Optical Fibre			
LDC	Construction, Local Distribution Cable			
LDCP	POS-Rearrange, Local Line Copper Distribution			
LDCR	Renewal, Local Line Copper Distribution			
LDD	Construction, Local Distribution Duct for Copper Cable			
LDR	Renewal, Local Line Duct for Copper Cable			
LFCR	Local Optical Fibre Cable Renewal			
LFD	Construction, Local Duct for OF Cable			
LFDC	Construction, Local Line OF Distribution			
LFH	Land Freehold – SITFH			
LFME	Construction, Local Network Service Module Equipment			
LFSC	Construction, Local Line OF Spine Cable			
LLL	Land Long Lease – STILL			
LMC	Construction, Local/Main Exchange-side Cable			
LMCP	POS-Rearrange, Local Line Copper Main Cable			
LMCR	Renewal, Local Line Copper Main Cable			
LMD	Construction, Local Main (Exchange-side)			
LQA	Local Lines Fault Volume Reduction – Duct			
LQD	Local Line Plant Improvement, Distribution-side			
LQM	Local Line Plant Improvement, Main side			
LSA	Local Lines Asset Assurancey Programme			
LSB	Local Lines Asset Assurancey Programme			
LSL	Land Shortlease – SITSL			
MICRO	Microconnect Provision			
MUC	Construction, Main Underground Cable			
MUD	Construction, Main Underground Duct			
	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			

Plant	Detailed Description and Methodology					
Group	Detailed Description and Methodology					
aroup	NDDD	Local Na	tura de Illat O Diversa l Duata atia a			
	NPPD NWB		twork Illct & Physical Protection			
	NWR		ange Lines (Business) ange Lines (Res)			
	PCOH		all Offices: Provision of Housing			
	PSC		Site Clearance			
	TCN		Damage, Networks			
	TPC		ction, Telecom Power Plant			
	TVD		: All ductwork			
PG942A						
1 43424		tes Non NG <i>A</i>	ABIW			
	<u>Description</u>					
	This Plant (Access) ass		ncludes the Cumulo charge payable for the	NGA (Next Generation		
	<u>Methodolog</u>	<u>97</u>				
		o costs in this Openreach.	Plant Group are allocated 100% to CL942 -	Cumulo Rates Non		
	Profit Weig	hted Net Re	oportioned to the Non NGA BT Enterprise ser placement Costs (PWNRC). A base is derive ervices in accordance with the following form	ed for apportionment of		
	Cu	mall _{i=} NNGA	$BTWCC imes \left(egin{array}{c} \sum_{j=1}^m nrc_{ij} land \%_j wacc_i \ / \sum_{i=1}^n \sum_{j=1}^m nrc_i \end{array} \right)$	c _{ij} land% _j wacc _i)		
	Where: Cun	mall _i = the allo	ocation of the Non NGA BT Enterprise related	Cumulo costs to service		
	nrc	NNGABTWCC = Non NGA BT Enterprise related Cumulo costs orc = the Net Replacement Costs of the Cumulo Rateable Asset that has been attributed to service =				
				t is regarded as being a		
	land% = the percentage of the Cumulo Rateable Asset that is regarded as being landlord asset within the most recent rating model used by the Valuation Off Agency in England and Wales to value BT's Cumulo assessment wacci = the weighted average cost of capital that is applicable for service; m = the number of the Cumulo Rateable Asset categories n = the number of the Non NGA BT Enterprise Services Specialised Buildings are not part of BT's fixed assets following their sale to what is n Telereal Trillium in 2001. However BT is the rateable occupier of these assets so they need be included. The NRCs of exchange buildings are updated every year by Telereal Trillium. The Specialised Building NRC value is apportioned to the NGA components in accordar with Group Property's charges for the Occupation of Specialised Buildings. A report from Corpertorm is produced which shows the Group Property charges apportioned by component this is then used as the basis for apportioning the Specialised Buildings NRC to Not components.					
	The table b	elow is a list o	of the Classes of Work that contain the Ratea	ble Assets:		
	CoW CoW Title					
		ACPA	Accommodation Plant for ASD			
		ACPB	Accommodation Plant, Building Related (F	AR)		
		ACPS	Accommodation Plant, Security			
		AFH	ACP Freehold – ACPFH			

ACP Long lease – ACPLL ACP Shortlease – ACPSL

Buildings Construction, New (FAR)
Buildings Construction, Refurbishment (FAR)
Buildings Construction, Security

ALL ASL

BCB BCR BCS

Plant Group	Detailed Description	and Methodology		
	BFH	Building Freehold – BLDFH		
	BHQ	Construction, Submarine Cable Inland		
	BLL	Buildings Long Lease - BLDLL		
	ВР	Building Purchases		
	BSL	Buildings Shortlease – BLDSL		
	CJC	Construction, Junction Metallic Pair Cable		
	CJCR	Renewal, Junction Metallic Pair Cable		
	CJD	Construction, Junction Duct		
	CJDR	Renewal, Junction Duct		
	CJF	Construction, Junction Cable – Optical Fibre		
	LDC	Construction, Local Distribution Cable		
	LDCP	POS-Rearrange, Local Line Copper Distribution		
	LDCP			
	LDCR	Renewal, Local Line Copper Distribution		
	LDD	Construction, Local Distribution Duct for Copper Cable		
	LDR	Renewal, Local Line Duct for Copper Cable		
	LFCR	Local Optical Fibre Cable Renewal		
	LFD	Construction, Local Duct for OF Cable		
	LFDC	Construction, Local Line OF Distribution		
	LFH	Land Freehold – SITFH		
	LFME	Construction, Local Network Service Module Equipment		
	LFSC	Construction, Local Line OF Spine Cable		
	LLL	Land Long Lease – STILL		
	LMC	Construction, Local/Main Exchange-side Cable		
	LMCP	POS-Rearrange, Local Line Copper Main Cable		
	LMCR	Renewal, Local Line Copper Main Cable		
	LMD			
		Construction, Local Main (Exchange-side)		
	LQA	Local Lines Fault Volume Reduction – Duct		
	LQD	Local Line Plant Improvement, Distribution-side		
	LQM	Local Line Plant Improvement, Main-side		
	LSA	Local Lines Asset Assurancey Programme		
	LSB	Local Lines Asset Assurancey Programme		
	LSL	Land Shortlease – SITSL		
	MICRO	Microconnect Provision		
	MUC	Construction, Main Underground Cable		
	MUD	Construction, Main Underground Duct		
	NPPD	Local Network Illct & Physical Protection		
	NWB	P&I Exchange Lines (Business)		
	NWR	P&I Exchange Lines (Res)		
	PCOH	Public Call Offices: Provision of Housing		
	PSC	Property Site Clearance		
	TCN	Criminal Damage, Networks		
	TPC	Construction, Telecom Power Plant		
	TVD	Cable TV: All ductwork		
PG943A	Cumulo Rates Non No	GA OR		
	<u>Description</u>			
	This Plant Group (PG) includes the Cumulo charge payable for the NGA (Next Gener Access) assets.			
	<u>Methodology</u>			
	The Cumulo costs in the NGA – Openreach.	his Plant Group are allocated 100% to CL943 - Cumulo Rates Non		

Detailed Description and Methodology

The Cumulo charge is apportioned to the Non NGA OR services only on the basis of Profit Weighted Net Replacement Costs (PWNRC). A base is derived for apportionment of the Cumulo charge to services in accordance with the following formula:

$$\text{Cumall}_{i=} \text{NNGAORWCC} \times \left(\begin{array}{c} \sum_{j=1}^{m} \text{nrc}_{ij} \text{land\%}_{j} \text{wacc}_{i} \\ / \sum_{i=1}^{n} \sum_{j=1}^{m} \text{nrc}_{ij} \text{land\%}_{j} \text{wacc}_{i} \end{array}\right)$$

Where

Cumall = the allocation of the Non NGA OR related Cumulo costs to service

NNGABTWCC = Non NGA OR related Cumulo costs

 ${\rm nrc}_{_{ij}}$ = the Net Replacement Costs of the Cumulo Rateable Asset $_{_j}$ that has been attributed to service $_{_i}$

 $land\%_j$ = the percentage of the Cumulo Rateable Asset j that is regarded as being a landlord asset within the most recent rating model used by the Valuation Office Agency in England and Wales to value BT's Cumulo assessment

wacc_i = the weighted average cost of capital that is applicable for service_i

m = the number of the Cumulo Rateable Asset categories

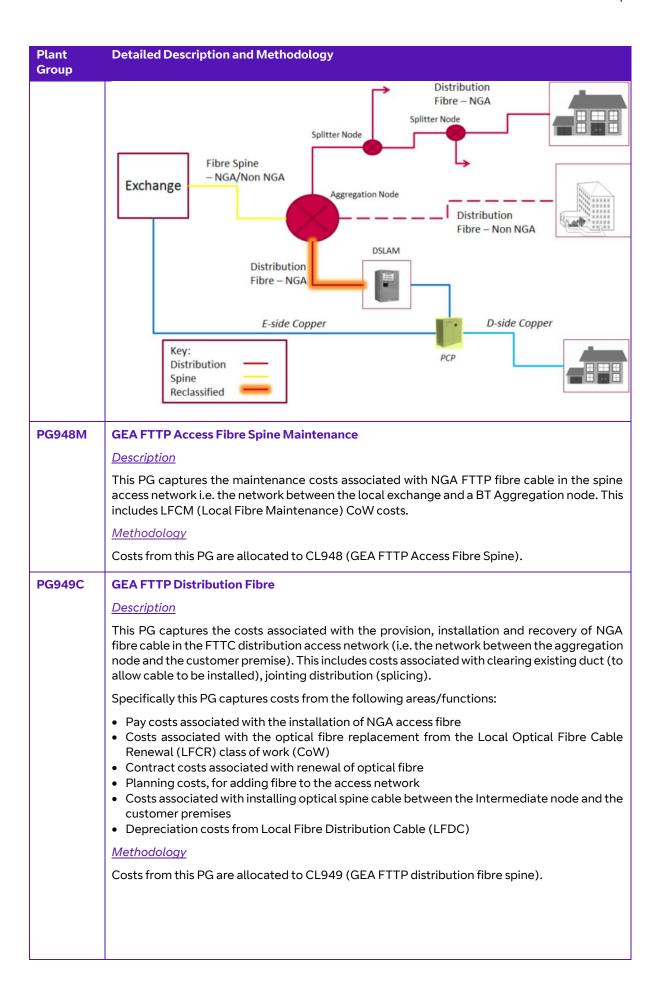
n = the number of the NGA Network Services

Specialised Buildings are not part of BT's fixed assets following their sale to what is now Telereal Trillium in 2001. However BT is the rateable occupier of these assets so they need to be included. The NRCs of exchange buildings are updated every year by Telereal Trillium.

The Specialised Building NRC value is apportioned to the NGA components in accordance with Group Property's charges for the Occupation of Specialised Buildings. A report from CostPerform is produced which shows the Group Property charges apportioned by component and this is then used as the basis for apportioning the Specialised Buildings NRC to NGA components. The table below is a list of the Classes of Work that contain the Rateable Assets:

CoW	CoW Title			
ACPA	Accommodation Plant for ASD			
ACPB	Accommodation Plant, Building Related (FAR)			
ACPS	Accommodation Plant, Security			
AFH	ACP Freehold – ACPFH			
ALL	ACP Long lease – ACPLL			
ASL	ACP Shortlease – ACPSL			
BCB	Buildings Construction, New (FAR)			
BCR	Buildings Construction , Refurbishment (FAR)			
BCS	Buildings Construction, Security			
BFH	Building Freehold – BLDFH			
BHQ	Construction, Submarine Cable Inland			
BLL	Buildings Long Lease - BLDLL			
BP	Building Purchases			
BSL	Buildings Shortlease – BLDSL			
CJC	Construction, Junction Metallic Pair Cable			
CJCR	Renewal, Junction Metallic Pair Cable			
CJD	Construction, Junction Duct			
CJDR	Renewal, Junction Duct			
CJF	Construction, Junction Cable – Optical Fibre			
LDC	Construction, Local Distribution Cable			
LDCP	POS-Rearrange, Local Line Copper Distribution			
LDCR	Renewal, Local Line Copper Distribution			
LDD Construction, Local Distribution Duct for 0				
	Cable			
LDR	Renewal, Local Line Duct for Copper Cable			
LFCR	Local Optical Fibre Cable Renewal			
LFD	Construction, Local Duct for OF Cable			
LFDC	Construction, Local Line of Distribution			

Plant Group	Detailed Description and Methodology				
	LFI	Н	Land Freehold – SITFH		
	LFN		Construction, Local Network Service Module		
			Equipment		
	LFS	SC	Construction, Local Line OF Spine Cable		
	LLI		Land Long Lease – STILL		
	LM		Construction, Local/Main Exchange-side Cable		
	LM	ICP	POS-Rearrange, Local Line Copper Main Cable		
	LM		Renewal, Local Line Copper Main Cable		
	LM	ID	Construction, Local Main (Exchange-side)		
	LQ.	ıΑ	Local Lines Fault Volume Reduction – Duct		
	LQ	!D	Local Line Plant Improvement, Distribution-side		
	LQ	·M	Local Line Plant Improvement, Main-side		
	LSA	Α	Local Lines Asset Assurancey Programme		
	LSE	В	Local Lines Asset Assurancey Programme		
	LSI	L	Land Shortlease – SITSL		
	MIC	CRO	Microconnect Provision		
	MU	JC	Construction, Main Underground Cable		
	MU	JD	Construction, Main Underground Duct		
	NP	PD	Local Network Illct & Physical Protection		
	NW	VB	P&I Exchange Lines (Business)		
	NW	VR	P&I Exchange Lines (Res)		
	PC	ЮH	Public Call Offices: Provision of Housing		
	PSC	С	Property Site Clearance		
	TC	N	Criminal Damage, Networks		
	TPO	С	Construction, Telecom Power Plant		
	TVI	D	Cable TV: All ductwork		
PG948C GEA FTTP Access Fibre Spine Description					
	This PG captures the costs associated with the provision, installation and recovery of NG FTTP fibre cable in the spine access network i.e. the network between the local exchange an a BT Aggregation node. This includes costs associated with clearing existing duct (to allo cable to be installed), jointing and spine cable (splicing). Specifically this PG captures costs from the following areas/functions: Pay costs associated with the installation of NGA FTTP access fibre Indirect costs of optical fibre replacement from the Local optical Fibre Cable Renewal				
	 (LFCR) classes of work (CoW) Contract costs associated with renewal of optical fibre Planning costs, adding fibre to the access network Costs associated with installing optical spine cable between the local exchange and la connection point before local distribution fibre or street optical Multiplexors (MUX) Depreciation costs from Local Fibre Spine Cable (LFSC) Costs in providing fibres between BT Exchanges i.e. main link fibre Methodology Costs from this PG are allocated to CL948 (GEA FTTP Access Fibre Spine) 				
	Costs from this	ru are all	located to CL946 (GEA FTTP Access Fibre Spine)		



GEA FTTP Distribution Fibre Maintenance Description This PG captures the maintenance costs associated with the NGA FTTP fibre cable in the distribution access network. This includes LFCM (Local Fibre Maintenance) CoW costs. Methodology Costs from this PG are allocated to CL949 (CEA FTTP distribution fibre spine)
This PG captures the maintenance costs associated with the NGA FTTP fibre cable in the distribution access network. This includes LFCM (Local Fibre Maintenance) CoW costs. Methodology
distribution access network. This includes LFCM (Local Fibre Maintenance) CoW costs. <u>Methodology</u>

Costs from this DC are allocated to CLOAD (CEA ETTD distribution fibre asing)
Costs from this PG are allocated to CL949 (GEA FTTP distribution fibre spine).
GEA FTTC Access Fibre Spine
<u>Description</u>
This PG captures the costs associated with the provision, installation and recovery of NGA FTTC fibre cable in the spine access network i.e. the network between the local exchange and a BT Aggregation node. This includes costs associated with clearing existing duct (to allow cable to be installed), jointing and spine cable (splicing). Specifically this PG captures costs from the following areas/functions:
 Pay costs associated with the installation of NGA FTTC access fibre Indirect costs of optical fibre replacement from the Local optical Fibre Cable Renewal (LFCR) classes of work (CoW) Contract costs associated with renewal of optical fibre Planning costs, adding fibre to the access network Costs associated with installing optical spine cable between the local exchange and last connection point before local distribution fibre or street optical Multiplexors (MUX)
Depreciation costs from Local Fibre Spine Cable (LFSC)
Methodology Costo from this DC are allocated to CLOSO (CEA ETTC Access Fibra Spire)
Costs from this PG are allocated to CL950 (GEA FTTC Access Fibre Spine).
GEA FTTC Access Fibre Spine Maintenance
<u>Description</u> This PG captures the maintenance costs associated with NGA FTTC fibre cable in the spine access network i.e. the network between the local exchange and a BT Aggregation node. This
includes LFCM (Local Fibre Maintenance) CoW costs.
<u>Methodology</u>
Costs from this PG are allocated to CL950 (GEA FTTC Access Fibre Spine).
GEA FTTC Distribution Fibre
<u>Description</u>
This PG captures the costs associated with the provision, installation and recovery of NGA fibre cable in the FTTC distribution access network (i.e. the network between the aggregation node and the street cabinet). This includes costs associated with clearing existing duct (to allow cable to be installed), jointing distribution (splicing). Specifically this PG captures costs from the following areas/functions:
 Pay costs associated with the installation of NGA access fibre Costs associated with the optical fibre replacement from the Local Optical Fibre Cable Renewal (LFCR) class of work (CoW) Contract costs associated with renewal of optical fibre Planning costs, for adding fibre to the access network Costs associated with installing optical spine cable between the Intermediate node and the customer premises Depreciation costs from Local Fibre Distribution Cable (LFDC)

Plant Group	Detailed Description and Methodology
	<u>Methodology</u>
	Costs from this PG are allocated to CL951 (GEA FTTC distribution fibre spine).
PG951M	GEA FTTC Distribution Fibre Maintenance
	<u>Description</u>
	This PG captures the maintenance costs associated with the NGA FTTC fibre cable in the distribution access network. This includes LFCM (Local Fibre Maintenance) CoW costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL951 (GEA FTTC distribution fibre spine).
PG952C	GEA Electronics
	<u>Description</u>
	This PG captures the NGA costs associated with the installation, rearrangement, recovery, replacement and renewal of NGA Local Access Network equipment at the exchange end of Local Access Optical Fibre Cables:
	 Pay costs associated with the installation of NGA access electronics Contract costs associated with renewal of NGA Electronics. Planning costs, and
	Depreciation costs from the LFXE CoW (for Construction of local line exchange service module.
	<u>Methodology</u>
	Costs from this PG are allocated to CL952 (GEA FTTC electronics) and CL961 (GEA FTTP electronics). The allocation is based on an annual study of volumes and weighted average costs of Optical Line Terminals (OLT) and customer-facing OLT Cards used to deliver FTTP and FTTC services.
	<u>Data Source/s</u>
	Head end card cost and volume data.
PG953C	GEA DSLAM and Cabinets
	<u>Description</u>
	This PG includes the NGA costs associated with the DSLAM cabinets, cabinet shells, and cabinet tie cables relevant for installation:
	 Pay costs associated with the installation of NGA DSLAM and Cabinets. Contract costs associated with renewal DSLAM and Cabinets. Planning costs.
	 Depreciation costs from the following CoW – Construction, Local Network Service Module Equipment (LFME). Associated NGA power and accommodation costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CL953 (GEA DSLAM cabinets).
PG954C	GEA Customer Site Installations
	<u>Description</u>
	This PG captures the costs associated with the provision and recovery of NGA Customer sited equipment. Specifically this PG captures costs from the following areas/functions:
	 Pay costs associated with the provisioning of NGA Customer sited equipment including the cost of jumpering at the street cabinet. Indirect costs of Customer sited equipment. Contract costs.

Plant Group	Detailed Description and Methodology
	Planning costs.
	Depreciation costs from the following CoW – Customer Premises Provision (FTTX).
	<u>Methodology</u>
	Costs from this PG are allocated to CL954 (GEA FTTC Customer Site Electronics) and CL963 (GEA FTTP Customer Site Installation). The allocation is based on in-year capital expenditure specific to FTTP and FTTC.
	<u>Data Source/s</u>
	CAPEX analysis from LOPLIST (Asset Policy Code data).
PG955M	GEA FTTC Maintenance
	<u>Description</u>
	This PG includes the NGA FTTC costs associated with the repair/ maintenance of the head end electronics, and DSLAM cabinets and specific NGA customer equipment.
	 Pay costs associated with the repair / maintenance of NGA equipment. Indirect costs of any repair / maintenance of NGA specific equipment.
	<u>Methodology</u>
	Costs from this PG are allocated to CL955 (GEA FTTC Repairs).
PG956M	GEA FTTP Maintenance
	<u>Description</u>
	This PG includes the NGA FTTP costs associated with the repair / maintenance of the head end electronics and specific NGA customer equipment.
	 Pay costs associated with the repair / maintenance of NGA equipment. Indirect costs of any repair / maintenance of NGA specific equipment.
	<u>Methodology</u>
	Costs from this PG are allocated to CL956 (GEA FTTP Repairs).
PG957P	GEA FTTP Provision
	<u>Description</u>
	This PG includes the NGA FTTP costs associated with the provision of specific NGA customer equipment.
	 Stores costs associated with the provision of NGA equipment. Pay costs associated with the repair / maintenance of NGA equipment. Indirect costs of any repair / maintenance of NGA specific equipment.
	<u>Methodology</u>
	Costs from this PG are allocated to CL957 (GEA FTTP provision).
PG958P	GEA FTTC Provision
	<u>Description</u>
	This PG includes the NGA FTTC costs associated with the provision of DSLAM cabinets and specific NGA customer equipment.
	 Stores costs associated with the provision of NGA equipment. Pay costs associated with the repair / maintenance of NGA equipment. Indirect costs of any repair / maintenance of NGA specific equipment.
	<u>Methodology</u>
	Costs from this PG are allocated to CL958 (GEA FTTC provision).

Plant	Detailed Description and Methodology
Group PG959C	Access Distribution Fibre
	Description
	This PG captures the costs associated with the provision, installation and recovery of fibre cable in the access network i.e. the network between the Node and customer's premises (see diagram) or fibre installed up to street multiplexers.
	Exchange Customer
	S pine Cable Distribution Cable
	This plant group includes costs associated with:
	Assets and depreciation relating to fibre distribution cables;
	 Duct used by these cables; Indirect costs related to the capital expenditure e.g. the van costs incurred by the engineers installing the fibre; and Indirect costs related to the assets themselves e.g. certain overhead types which are apportioned on the basis of asset value and pay.
	This plant group excludes the access distribution fibres used by our Generic Ethernet Access (GEA) products.
	<u>Methodology</u>
	We use the same methodology to allocate these costs to components as we do for PG111C Access Spine Fibre except that for EAD circuits we calculate the number of fibres used per circuit as 2 instead of 1. This because as circuits move legacy WES services to single fibre working EAD services we do not believe that the freed-up fibre will be reused in the distribution network.
	See PG111C for more details.
	<u>Data Source/s</u>
	See PG111C.
PG960A	GEA Cable Links
	<u>Description</u>
	This PG captures the costs of the provision of GEA cable links.
	The main direct classes of works (CoW) are LFSC and LFDC.
	<u>Methodology</u>
	Costs from this PG are allocated to CL962 (GEA Cable Links).
	<u>Data Source</u>
DCOCCO	Sub-programme data within the General Ledger.
PG980R	Repayment Works Description
	<u>Description</u> This PG contures the costs of Openroach repayment works. The main role of the Penayment
	This PG captures the costs of Openreach repayment works. The main role of the Repayment Works unit is to ensure the integrity and protection of BT's network, where the highway

Plant	Detailed Description and Methodology
Group	Detailed Description and Methodology
	infrastructure is required to be altered due to promoting authority works under an act of parliament and protecting the network from damage as a result of third party works.
	The relevant classes of works (CoW) are: HK, HM, HO, HPL, HUR, HSW for opex and LDC, LDD, CJC, CJF for capitalised costs.
	<u>Methodology</u>
	Costs from this PG are allocated to CK980 (Openreach Repayment Works).
PG981R	Time Related Charges
	<u>Description</u>
	This PG captures the costs and balance sheet of time scale charges. Time scale charges refer to time spent on planned / unplanned jobs when a timescale charge is appropriate.
	Key costs are allocated to this PG from the following classes of work (CoW):
	 MG – Maintenance Control. SUNR – Repair Customer Wiring (Residential). Various CoWs starting with AP/AM e.g. AMCBB, AMBSB
	<u>Methodology</u>
	Costs from this PG are allocated to CK981 (Openreach Time Related charges).
PG982R	Openreach Managed Services for BT Enterprise
	<u>Description</u>
	This PG captures the costs of any work done by Openreach that specifically supports BT Enterprise Products and services or activities.
	<u>Methodology</u>
	Costs from this PG are allocated to CK982 (Openreach Managed Services for Enterprise).
PG985R	Openreach Managed Services for BT Retail
	<u>Description</u>
	This PG captures the costs of any work done by Openreach that specifically supports BT Retail Products and services or activities.
	<u>Methodology</u>
	Costs from this PG are allocated to CK985 (Openreach Managed Services for Retail).
PG986R	Openreach Other Activities
	<u>Description</u>
	This PG captures the income for Openreach other activities that have not been allocated to other plant groups.
	<u>Methodology</u>
	Costs from this PG are allocated to CK986 (Openreach Other Activities).
PG987R	Unregulated Time Related Charges
	<u>Description</u>
	This PG captures the costs and balance sheet of time scale charges. Time scale charges refer to time spent on planned / unplanned jobs when a timescale charge is appropriate.
	Key costs are allocated to this PG from the following classes of work (CoW):
	 CNS – Customer Network Services TMPT – Temporary Plant MG – Maintenance Control SUNR – Repair Customer Wiring (Residential)

Plant Group	Detailed Description and Methodology
Group	Various CoWs starting with AP/AM e.g. AMCBB, AMBSB
	<u>Methodology</u>
	Costs from this PG are allocated to CK987 (Openreach Unregulated Time Related charges.
PG989A	Special Fault Investigation (SFI)
	<u>Description</u>
	This PG captures the costs and balance sheet of SFI.
	A Local Loop Unbundling (LLU) SFI can be initiated by an LLU Communications Provider (CP) when a Metallic Path Facility (MPF) or Shared Metallic Path Facility (SMPF) tests OK on the Openreach line test system, but where there might be a problem with the CP's Asymmetric Digital Subscriber Line (ADSL) or Symmetric Digital Subscriber Line (SDSL) service. The LLU SFI is a chargeable investigation product which attempts to identify and resolve DSL service affecting problems.
	<u>Methodology</u>
	Costs from this PG are allocated to CO989 (Special Fault Investigations).
PG990A	FTTP Funded Fibre Rollout Spend
	<u>Description</u>
	PG990A captures the expenditure on fibre rollout across BDUK areas for FTTP services.
	<u>Methodology</u>
	BDUK costs relating to FTTP services are sourced directly from Openreach. Costs from this plant group are allocated to CL990 (FTTP Funded Fibre Rollout Spend).
	<u>Data Source</u>
	BDUK annual CAPEX Report.
PG998A	Fibre Rollout Funding
	<u>Description</u>
	PG998A captures the funding of the BDUK Development Programme.
	<u>Methodology</u>
	Costs from this plant group are allocated to CL998 (FTTC Fibre Rollout Funding) and CL990 (FTTP Funded Fibre Rollout Spend). The attribution is based on the allocation of Funded Fibre Rollout Spend to FTTP and FTTC services.
	<u>Data Source</u>
	General ledger (class of work GFA).
PG999A	FTTC Funded Fibre Rollout Spend
	<u>Description</u>
	PG999A captures the expenditure on fibre rollout across BDUK areas for FTTC services.
	<u>Methodology</u>
	BDUK costs relating to FTTC services are sourced directly from Openreach. Costs from this plant group are allocated to CL999 (FTTC Funded Fibre Rollout Spend).
	<u>Data Source</u>
	BDUK annual CAPEX Report.

Plant Group	Detailed Description and Methodology
PG451A	Dark Fibre Specific Rental costs
	<u>Description</u>
	PG451A captures the expenditure specifically relating to providing Inter-exchange Dark Fibre Rental services. These costs relate to the labour and equipment costs of installing "patch panels" within an exchange for the access seekers to utilise.
	<u>Methodology</u>
	Dark Fibre Specific costs have been agreed between Ofcom and Openreach, which have formed the foundation for the pricing of DFX products. Costs from this plant group are allocated to C0488 (Dark Fibre Specific Rental Costs)
	<u>Data Source</u>
	Ofcom Pricing Model
PG452A	Dark Fibre Specific Connections costs
	<u>Description</u>
	PG452 captures the expenditure specifically relating to providing Inter-exchange Dark Fibre Connection services. These costs relate to the labour associated with the "birth certificate" process, which is provided by Openreach when handing the circuit over to the access seeker and will display the actual performance characteristics of the dark fibre circuit
	<u>Methodology</u>
	Dark Fibre Specific costs have been agreed between Ofcom and Openreach, which have formed the foundation for the pricing of DFX products. Costs from this plant group are allocated to C0488 (Dark Fibre Specific Rental Costs)
	<u>Data Source</u>
	Ofcom Pricing Model

10.3 WACC Percentages

The Weighted Average Cost of Capital (WACC) for each Plant Group is defined below:

A WACC of 8.1% is used for the following Plant Groups:

PG	PG Description
PG005Y	Residual EXCESS CON ADJUST CREDIT DUCT
PG117C	E-side Copper Cable
PG117M	E-side Copper Cable Maintenance
PG118C	D-side Copper Cable
PG118M	D-side Copper Cable Maintenance
PG120B	LLU Electricity Usage - OR
PG121M	Dropwire Maintenance Business
PG122M	Dropwire Maintenance Residential
PG127A	Analogue Linecards
PG129A	Pair Gain Systems
PG130A	Intra-exchange Tie Cables
PG132B	LLU Co-mingling Recurring Costs (OR)
PG132N	LLU Co-mingling Recurring costs (Technology)
PG136A	LLU Comingling Surveys
PG136N	LLU Co-mingling Provision
PG142A	MDF Hardware Jumpering
PG149A	Analogue Line Final Drop
PG150B	Abortive Visits
PG152B	Other Openreach Repairs
PG166A	WLR Enhanced Care Resource Level 3 and 4
PG167A	WLA Enhanced Care Resource Level 3 and 4
PG168A	WLR Enhanced Care Resource Level 2
PG169A	WLA Enhanced Care Resource Level 3
PG180A	Other WLA
PG213C	Local Exchanges UXD
PG217E	Main Distribution Frames Equipment
PG217F	Main Distribution Frames Maintenance
PG217R	Main Distribution Frames Maintenance (Technology)
PG240A	Analogue Line Testing Equipment
PG570B	OR Service Centre Provision Analogue/ISDN2
PG572B	OR Service Centre Provision LLU
PG575B	OR Service Centre Assurance WLR PSTN/ISDN2
PG577B	OR Service Centre Assurance LLU
PG590B	SLG WLA Ext
PG591B	SLG WLA Int
PG603B	SLG WLR Provision Ext
PG604B	SLG WLR Assurance Ext
PG607B	SLG WLR Provision Int
PG611B	SLG WLR Assurance Int

PG613B	IFRS15 SLGs Int
PG615B	IFRS 15 SLGs Ext
PG943A	Cumulo Non NGA OR
PG982R	Openreach Managed Services for Wholesale
PG989A	Special Fault Investigation
PG990A	FTTP Funded Fibre Rollout Spend
PG998A	Fibre Rollout Funding
PG999A	FTTC Funded Fibre Rollout Spend

A WACC of 9.3% is used for the following Plant Groups:

PG	PG Description
PG002Y	TISBO Excess Construction Adjustment Credit
PG112C	BTW Residual
PG114L	ISDN30 Connections
PG115C	Access Radio Equipment
PG115M	Access Radio Maintenance
PG119A	Telephony Over Passive Optical Network
PG123M	ISDN2 Maintenance
PG124A	ISDN30 Equipment
PG128A	ISDN2 Linecards
PG140A	Routing and Records
PG145N	WBA End User NTEs
PG150A	ISDN 2 Access Equipment
PG151B	Broadband Line Testing Equipment (Openreach)
PG151N	Broadband Line Testing Equipment (Technology)
PG152N	DSLAM - Overheads
PG153N	DSLAM - Equipment
PG154B	NGA Visit Assure
PG155B	Expedite Provision Costs
PG170B	Backhaul Fibre
PG192A	FTTC Copper Tie Cables
PG197A	FTTC Service Delivery & Development
PG198A	FTTP Development
PG224A	Universal Card Platform Equipment
PG227A	Advanced Switching Units
PG228A	Signalling Transfer Point and Edge Link Monitors
PG229A	Signalling Point Relay and Core Link Monitors
PG249C	Main Exchange DLT
PG252B	Openreach Residual Elimination
PG252N	Network Residual Elimination
PG254A	Main Exchange - Intelligent Access & Messaging
PG255B	Main Exchange Switchblock
PG256B	OR Project Simple - Residual
PG257C	Main Exchange Processor
PG260A	Intelligent Network Platform

PG276A	Common Capability - Intelligence Service Layer
PG280C	AXE10 LE Processor
PG281C	AXE10 LE DLT
PG282A	Local Exchange Switch Block (AXE10)
PG283A	Local Exchange Conc (AXE10) Call set-up
PG284A	Local Exchange Conc (AXE10) Call Duration
PG285C	System X Processor
PG286C	System X LE DLT
PG287A	Local Exchange Switch Block (AXE10)
PG288A	Local Exchange Concentrator (Sys X) Call Set-up
PG289A	Local Exchange Concentrator (Sys X) Call Duration
PG300T	PPC Point of Handover
PG301T	SDH Tier 0 Equipment
PG311T	SDH Tier 1 STM1 Equipment
PG313T	SDH Tier 1 STM4 Equipment
PG315T	SDH Tier 1 STM16 Equipment
PG321T	SDH Tier 2 STM1 Equipment
PG323T	SDH Tier 2 STM4 Equipment
PG325T	SDH Tier 2 STM16 Equipment
PG331T	SDH Tier 3 STM1 Equipment
PG333T	SDH Tier 3 STM4 Equipment
PG335T	SDH Tier 3 STM16 Equipment
PG341T	SDH Tier 4 STM1 Equipment
PG343T	SDH Tier 4 STM4 Equipment
PG345T	SDH Tier 4 STM16 Equipment
PG350N	Core Fibre
PG351T	SDH Tier SC STM1 Equipment
PG353T	SDH Tier SC STM4 Equipment
PG355T	SDH Tier SC STM16 Equipment
PG359T	SDH Traffic Grooming
PG361T	PDH Metal 2Mbits/s Equipment
PG365T	PDH Metal 34Mbits/s Equipment
PG367T	PDH Metal 140Mbits/s Equipment
PG371T	PDH Optical 2Mbits/s Equipment
PG373T	PDH Optical 8Mbits/s Equipment
PG375T	PDH Optical 34Mbits/s Equipment
PG377T	PDH Optical 140Mbits/s Equipment
PG379T	PDH Optical 565Mbits/s Equipment
PG381T PG383T	MSH STM16 Equipment
	MSH STM16 Equipment
PG385T PG391T	MSH STM64 Equipment
PG3911 PG393T	PDH Radio 8Mbits/s Equipment PDH Radio 34Mbits/s Equipment
	·
PG395T	PDH Radio 140Mbits/s Equipment

PG399T	PDH Traffic Grooming
PG400T	ACE/ENA Core Equipment
PG405A	DMS100 Call Centre Switches
PG411P	Analogue Private Circuit Connections
PG412C	Local End Equipment 64kbit/s
PG412M	Local End Equipment 64kit/s Repair
PG412P	64kbit/s Private Circuit Connections
PG413P	Private Circuits Megastream and IX Conns
PG421S	Private Circuits Analogue Installation
PG422S	Private Circuits Analogue Installation
PG440C	Local End Equipment ASDH 4x2Mbit/s Equipment
PG440M	Local End Equipment ASDH 4x2Mbit/s Maintenance
PG441C	Local End Equipment ASDH 16x2Mbit/s Equipment
PG441M	Local End Equipment ASDH 16x2Mbit/s Maintenance
PG442C	Local End Equipment 2Mbit/s (Copper) Equipment
PG442M	Local End Equipment 2Mbit/s (Copper) Maintenance
PG443C	Local End Equipment 2Mbit/s (Fibre) Equipment
PG443M	Local End Equipment 2Mbit/s (Fibre) Maintenance
PG444C	Local End Equipment 34Mbit/s Equipment
PG444M	Local End Equipment 34Mbit/s Maintenance
PG445C	Local End Equipment 140Mbit/s Equipment
PG445M	Local End Equipment 140Mbit/s Maintenance
PG446C	Local End Equipment 622Mbit/s Equipment
PG446M	Local End Equipment 622Mbit/s Maintenance
PG448A	CCTV Rental
PG448L	CCTV Connection
PG461A	Private Circuits Test & Maintenance Systems
PG462A	Private Circuits Customer Premises
PG463A	Private Circuits Testing
PG502B	SG&A Openreach Sales Product Management
PG511M	Interconnect OCP Maintenance
PG511P	Interconnect OCP Provision
PG571B	OR Service Centre Provision ISDN30
PG574B	OR Service Centre Provision NGA
PG576B	OR Service Centre Assurance WLR ISDN30
PG579B	OR Service Centre Assurance NGA
PG580B	Broadband Boost
PG599A	Interconnect Outpayments Inland
PG622A	Public Payphones Operations
PG622B	Public Payphones Operations – OR
PG666A	TVC
PG668A	IP Network Management
PG670A	IP Network Fixed Access
PG671A	IP Network VPN

PG672A	IP Network Broadband
PG674A	IP Core/Colossus
PG675A	IP VOIP Infrastructure
PG675B	Hosted Communications Services Infrastructure
PG678A	SIP servers
PG771A	Special Applications Other Development
PG800A	Ofcom Licence Fee
PG857A	Copper MSAN Combi Cards Broadband element
PG859A	Copper MSAN Control Access
PG860A	Copper MSAN Control Transport
PG865A	Core-Core Length
PG866A	Core-Core Link
PG867A	Ethernet NTE
PG868A	Core WBMC Dedicated
PG875A	INODE Network Features
PG876A	INODE Voice Call Set-Up
PG878A	Metro Broadband LNS
PG880A	Metro Broadband Edge Aggregator
PG881A	METRO BRAS and MSE
PG882A	Metro Front End Router
PG885A	Metro-Core Length
PG886A	Metro-Core Link
PG887A	Metro-Edge Ethernet Bandwidth
PG888A	Metro-Edge Ethernet Port
PG889A	Metro-Infrastructure Ethernet
PG893A	Multi Service Provider Edge Routers
PG895A	Network Router (large) Core
PG896A	Network Router Metro
PG898A	Core Directors
PG901A	Ethernet Switches
PG902A	Ethernet Switch Access Cards
PG903A	Metro MAR
PG911A	Operator Services Inland
PG941A	Cumulo Rates NGA
PG942A	Cumulo Non NGA BTW
PG948C	GEA FTTP Access Fibre Spine
PG948M	GEA FTTP Access Fibre Spine Maintenance
PG949C	GEA FTTP Distribution Fibre
PG949M	GEA FTTP Distribution Fibre Maintenance
PG950C	GEA FTTC Access Fibre Spine
PG950M	GEA FTTC Access Fibre Spine Maintenance
PG951C	GEA FTTC Distribution Fibre
PG951M	GEA FTTC Distribution Fibre Maintenance
PG952C	GEA Electronics

PG953C	GEA DSLAM & Cabinets
PG954C	GEA Customer Site Installations
PG955M	GEA FTTC Maintenance
PG956M	GEA FTTP Maintenance
PG957P	GEA FTTP Provision
PG958P	GEA FTTC Provision
PG960A	GEA Cable Links
PG980R	Repayment Works
PG981R	Regulated Time Related Charges
PG985R	Openreach Managed Services for Retail
PG986R	Openreach Other Activities
PG987R	Unregulated Time Related Charges

A WACC of 8.0% is used for the following Plant Groups:

PG	PG Description
PG003Y	CISBO Excess Construction adjustment credit
PG006X	CISBO ECC Capex Debit
PG111C	Access Fibre Spine
PG111M	Access Fibre Maintenance
PG171A	Ethernet Cablelink
PG254B	OR Project Services
PG447A	Ethernet Access Equipment
PG449A	Ethernet Monitoring Platform
PG451A	Dark Fibre Specific Rental costs
PG452A	Dark Fibre Specific Connections costs
PG457A	Optical Ethernet Electronics Capital
PG467A	EAD Electronics Capital
PG573B	OR Service Centre Provision Ethernet
PG578B	OR Service Centre Assurance Ethernet
PG601B	SLG Ethernet Provision Ext
PG602B	SLG Ethernet Assurance Ext
PG605B	SLG Ethernet Provision Int
PG606B	SLG Ethernet Assurance Int
PG612B	IFRS 15 Deferred Revenue Int
PG614B	IFRS 15 Deferred Revenue Ext
PG773A	Ethernet Systems Development
PG899A	WDM-Metro Link
PG900A	WDM-Metro Length
PG959C	Access Distribution Fibre

A WACC of 7.1% is used for the following Plant Groups:

PG	PG Description
PG100D	Duct RAV
PG101D	Duct Infrastructure
PG200P	Poles Capex
PG201P	Poles Repair
PG300N	Duct Network Adjustments Internal
PG302N	Poles Network Adjustments Internal
PG303N	Duct Network Adjustments External
PG304N	Network Adj Above The Line

11 Components

11.1 Introduction to Components

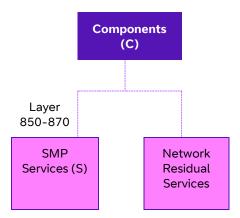
Components (sometimes called Network Components) are one of the five main categories of costs we use in the production of the RFS. Components are used to attribute onwards the costs and asset values representing discrete parts of BT's Network (e.g. MDF Equipment, Access Fibre Spine and ISDN30 Connections). Costs within these network components are attributed to various Services.

Network components represent the collection of various different cost types. One of the distinguishing features of a component is that it would usually have a single cost driver. E.g. Call switching is consumed in the provision of minutes of conversation time, and so conversation time is used as the cost driver for switching costs. In the case of switching, component costs or charges flow to downstream retail products via services pro-rata to the volume of call minutes generated by each product or service.

Component attribution is the final stage of the cost attribution process relevant to our regulatory reporting obligations. We attribute the costs of all Network Components to Standard Services. The attribution process takes place at level 8 in our CostPerform system (see diagram below - full diagram shown and explained in Section 2 Business and system overview).

At the end of this stage all relevant network and non-network costs have been attributed to wholesale services (Openreach and Enterprise). These services are then grouped to represent different Markets for regulatory purposes.

Illustration of CostPerform processing Layer 850-870



11.2 Component to Service attribution

The cost of each network component can either be directly allocated to an individual product/service or an attribution methodology can be used to apportion the cost to multiple products/services. These attribution methodologies are often directly linked to service volumes and hence drive the attribution of costs. For example, if Component A is used by two services, each with equal volume usage, then the attribution of costs of Component A to the two services will reflect an equal split.

11.2.1 Introduction to factors and factored volumes

The total costs of the Wholesale Markets can be obtained by aggregating the costs of all Network Components. However, it is necessary to attribute that total cost to individual wholesale services. In cases where Network Components are used by multiple Services it is necessary to factorise the component volume per Service to determine the cost attribution.

For Services provided on a cost basis, the cost to Wholesale Markets of providing such service is the cost of each component used in providing the Service. For some Wholesale Services, the calculation of the cost of service provision is more complicated, as each service represents the utilisation of one or more network components, and its cost is therefore determined by an attribution of component costs. This attribution can

involve the calculation and application of route factors, usage factors or other appropriate basis of apportioning components costs.

Usage factors are one of the most common ways of determining a Service's usage of a particular Network Component.

11.2.2 Derivation of usage factors

Usage factors reflect the usage of a particular component by a service compared to the other services which also use that component. It is therefore specific to each Component-Service combination. The determination of relevant usage factors varies dependant on the type of service.

This variation arises because individual Markets use different components which are representative of costs incurred and measurable in very distinct ways. E.g. call routes and route sampling are relevant in determining call related component to service usage factors, whereas in the Business Connectivity Markets the usage factors for services depend on the type of circuit and level of competitiveness of the different segments in the network used to provide the service (i.e. whether it is an Access or Inter-exchange circuit and whether BT is the only provider at a given exchange or if there are other competitors).

The diagram below shows how component costs are attributed to services.

Component x Cost: £1,000 Raw/unfactored volume:		Usage factors	Component Cost: £1,000 Factored vo	0	Sarvice A - Cost	£1,000x900/1,300 = £692
Service A	600 units	Service A: 1.5	Service A	900 units		£1,000x400/1,300 = £308
Service B TOTAL	400 units 1,000 units	Service B: 1.0	Service B TOTAL	400 units 1,300 units		

- 1. Component factored volume is calculated by multiplying the Service volume by the Component-Service usage factor (i.e. how many Components are used by that Service). The costs are those that have been attributed through to the component level in the CostPerform system.
- 2. These volumes are then used to calculate the cost of the Service. Note that in most cases the Product/Service volume weighting is 1, and in this instance we can use raw volumes to derive the cost of the Service. In the above example without using factors the cost would be split between A and B in the ratio £600:£400, this demonstrates that because Service A uses Component X comparatively more than Service B does, it should take a higher proportion of its cost.

The calculation of usage factors for the most significant components used to populate the RFS is described in the following dictionary section. Following this is a table which shows the services to which components attribute costs alongside the usage factors.

11.3 Component to Super Component mapping and Usage Factors

	Component Description	Super Component
CB599	Interconnect Payments to OLOs	CB599
	Description	Interconnect
	The costs within CB599 are Payments to Other Communications Providers– previously known as OLOs (other licensed operators), for the cost applicable to terminating a call on the OCPs network.	Payments to OLOs
	Basis for Usage Factor Calculation	
	The usage factor for this component is 1.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CE106	Ethernet Excess Construction Capex	CE106
	<u>Description</u>	CISBO Ethernet
	This component attributes costs relating to Excess Construction Charges (ECCs incurred on Ethernet (CISBO) services including EAD connections for the ECC fixed fee element, TRC services, and ECC services in the CISBO Markets. This component receives a 100% allocation from PG006X.	Excess Construction Capex
	Basis for Usage Factor Calculation	
	This component relates to the CISBO Markets. The volumes for the relevant services are nominal values for every service and the attribution is performed entirely using the usage factors.	
	To derive the usage factors we use the relative values of the revenues of each service.	
CF187	MPF Line Testing Systems	CF187
	<u>Description</u>	MPF Line
	This component attributes Test Access Management Systems (TAMS) costs. These are used to provide remote access facilities on broadband circuits for testing towards the customer and into the network. TAMS are installed between the Main Distribution Frame (MDF) and the Digital Subscriber Line Access Multiplexer (DSLAM).	Testing Systems
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CF189	EVOTAM Testing Systems	CF189
	<u>Description</u>	EVOTAM
	This component attributes EvoTAMs systems costs. EvoTAMs are installed on SMPF lines to test SMPF lines that are supplied internally to provide Wholesale Broadband Connect services.	Testing Systems
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CF371	OR PC Rental 2Mbps link per km distribution	CO371
	<u>Description</u>	PC Rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites. They utilise bearers and line systems which consist of electronics and interconnecting	2Mbps link per km distribution

	Component Description	Super Component
	cable. The distribution components encompass the costs the electronics across the backhaul network and the associated bearers.	Component
	This component attributes the costs for the 2Mbit bandwidth services.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CF373	OR PC Rental 34Mbps link per km distribution	CO373
	<u>Description</u>	PC Rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites. They utilise bearers and line systems which consist of electronics and interconnecting cable. The distribution components encompass the costs the electronics across the backhaul network and the associated bearers.	34Mbps link per km distribution
	This component attributes the costs for the 34Mbit bandwidth services.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CF375	OR PC Rental 140Mbps link per km distribution	CO375
	<u>Description</u>	PC Rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites. They utilise bearers and line systems which consist of electronics and interconnecting cable. The distribution components encompass the costs the electronics across the backhaul network and the associated bearers.	140Mbps link per km distribution
	This component attributes the costs for the 140Mbit bandwidth services.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CF381	OR PC Rental 64Kbps link	CO381
	<u>Description</u>	PC rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites. They utilise bearers and line systems which consist of electronics and interconnecting cable. This link component captures the costs of the electronics (but not the cables) that connect the BT terminating ends into the core network. This component captures the costs of 64Kbit/s bandwidth Openreach circuits.	64Kbps link
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	

	Component Description	Super Component
CF383	OR PC Rental 2Mbps link	CO383
	<u>Description</u>	PC rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites. They utilise bearers and line systems which consist of electronics and interconnecting cable. This link component captures the costs of the electronics (but not the cables) that connect the BT terminating ends into the core network. This component captures the costs of 2Mbps bandwidth Openreach circuits.	2Mbps link
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CF388	OR PC rental 140Mbps link	CO388
	<u>Description</u>	PC rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites. They utilise bearers and line systems which consist of electronics and interconnecting cable.	140Mbps link
	This component attributes the costs of the electronics (not the cables) that connect the BT terminating ends into the core network. This component is specific to Openreach 140Mbit circuits.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CF391	OR PC rental 64Kbps link per km transmission	CO391
	<u>Description</u>	PC rental
	This component captures the costs of the Digital Private Circuits Network (DPCN) Transmission Links. The major products using this component are Kilostream N (KxN), sub-2Mb PPCs and IP Clear. Volumes are measured in number of 64kb (Kx) equivalent circuits.	64Kbps link per km transmission
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CF453	OR Interconnect 2Mbps connection	CO453
	<u>Description</u>	Interconnect 2Mbps
	Interconnect circuits provide the physical infrastructure to connect the exchanges (switches) of two CPs in order to allow traffic to pass between them.	connection
	The cost of interconnect circuits is borne by BT and is used to connect BT's network to another operator. The circuit may be used by both BT and the operator and charges are apportioned according to ownership of traffic between the parties. The circuit is charged as an upfront connection and ongoing rental.	

	Component Description	Super Component
	The connection and ongoing rental of the circuit is shared by three parties as follows:	Component
	 The terminating network operator for use of the circuit to transit and terminate its calls; BT for own use of the circuit; and The originating transit network operator. 	
	This component attributes the costs of providing the connection of an Interconnect 2Mbit circuit (including associated overheads) as applied to Customer Sited Interconnect (CSI) and Interconnect Extension Circuits (IEC) connections and re-arrangements.	
	Basis for Usage Factor Calculation	
	Usage factors for this component are derived from the price weighted volume of circuits provided during the year. The price-weighting takes into account the difference in providing a connection with that of carrying out a re-arrangement or a transfer. From these price-weighted volumes usage factors are calculated and applied.	
	As this methodology uses price weighted volumes, factors will be the same for tandem (non-SMP) and DLE (SMP) services where prices are the same.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CG101	PC rental 2Mbps regional trunk	CG101
	<u>Description</u>	PC rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites (BT or customer). They utilise bearers and line systems which consist of electronics and interconnecting cable.	2Mbps regional trunk
	This component attributes the cost of connecting between the Parent Nodes (preferred Tier 1 site) of the serving exchanges for 2Mbps bandwidth services.	
	Basis for Usage Factor Calculation	
	CTCS volumes are used to attribute costs to Services. We use the network inventory, routing and network topology information to derive these factors.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CG102	PC rental 34Mbps regional trunk	CG102
	<u>Description</u>	PC rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites (BT or customer). They utilise bearers and line systems which consist of electronics and interconnecting cable.	34Mbps regional trunk
	This component attributes the cost of connecting between the Parent Nodes (preferred Tier 1 site) of the serving exchanges for 34Mbps bandwidth services.	
	Basis for Usage Factor Calculation	
	CTCS volumes are used to attribute costs to Services. We use the network inventory, routing and network topology information to derive these factors.	

	Component Description	Super Component
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CG103	PC rental 140Mbps regional trunk	CG103
	<u>Description</u>	PC rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites (BT or customer). They utilise bearers and line systems which consist of electronics and interconnecting cable.	140Mbps regional trunk
	This component attributes the cost of connecting between the Parent Nodes (preferred Tier 1 site) of the serving exchanges for 140Mbps bandwidth services for regional trunk.	
	Basis for Usage Factor Calculation	
	CTCS volumes are used to attribute costs to Services. We use the network inventory, routing and network topology information to derive these factors.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CG201	PC rental 2Mbps link national trunk	CG201
	<u>Description</u>	PC rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites (BT or customer). They utilise bearers and line systems which consist of electronics and interconnecting cable. This component captures the cost of connecting between the Parent Nodes (preferred Tier 1 site) of the serving exchanges.	2Mbps link national trunk
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1 except for SH/SQ/ST372 where CTCS volumes are used to attribute costs to these services.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CG203	PC rental 140Mbit link per km national trunk	CG203
	<u>Description</u>	PC rental
	Private Circuits provide a dedicated point-to-point connection for exclusive voice and data communications between two sites (BT or customer). They utilise bearers and line systems which consist of electronics and interconnecting cable.	140Mbit link per km national trunk
	This component attributes the cost of connecting between the Parent Nodes (preferred Tier 1 site) of the serving exchanges for 140Mbit bandwidths for national trunk.	
	Basis for Usage Factor Calculation	
	CTCS volumes are used to attribute costs to Services. We use the network inventory, routing and network topology information to derive these factors.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	

	Component Description	Super Component
CK980	Openreach repayment works	CK980
	<u>Description</u>	Openreach
	This component captures the costs of Openreach repayment works.	Repayment works
	The main role of the Repayment Works unit is to ensure the integrity and protection of BT's network, where the highway infrastructure is required to be altered due to promoting authority works under an act of parliament and protecting the network from damage as a result of third party works.	NONG
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CK981	Openreach Time Related Charges	CK981
	<u>Description</u>	Openreach time
	TRCs refer to repair and provisioning jobs carried out by Openreach engineers. The activity could be on Openreach's network or outside of this network, e.g. wiring in the customer's home.	related charges
	Basis for Usage Factor Calculation	
	The usage factors for this component are calculated based on the revenue of each service as a proportion of the total revenue of all services attributed to by the component.	
CK985	Openreach Managed Services for BT Retail	CK985
	<u>Description</u>	Openreach
	This PG captures the costs of any work done by Openreach that specifically supports BT Retail Products and services or activities.	Managed Services for BT Retail
	Basis for Usage Factor Calculation	
	100% allocated to SK989 – OR Redcare - internal	
CK987	Openreach Unregulated Time Related Charges	CK987
	<u>Description</u>	Openreach
	TRCs refer to repair and provisioning jobs carried out by Openreach engineers. The activity could be on Openreach's network or outside of this network, e.g. wiring in the customer's home.	Unregulated Time Related Charges
	Basis for Usage Factor Calculation	
	The usage factors for this component are calculated based on the revenue of each service as a proportion of the total revenue of all services attributed to by the component.	
CL120	LLU Electricity Usage - OR	CT134
	<u>Description</u>	Co-mingling
	This component attributes the costs of all LLU related electricity charges.	power & vent
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL131	Co-mingling set up	CL131
	<u>Description</u>	Co-mingling
	Hostels are the location of an operator's equipment in a site; they are rooms that are built to a standard design to house a number of operators. This component attributes the cost of building Local Loop Unbundling (LLU) Hostels within BT Exchanges.	set up

	Component Description	Super Component
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL132	Co-mingling rentals	CL132
	<u>Description</u>	Co-mingling
	This component attributes the direct costs and associated overheads relating to the accommodation of Communication Providers' (CP) Local loop Unbundling (LLU) equipment.	rentals
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL133	WLA tie cables	CL133
	<u>Description</u>	WLA tie cables
	This Component attributes planning and installation costs, depreciation and overheads associated with external and Internal LLU Tie Cables that provide access to BT Exchange and access copper network to enable operators, other than BT, to use the BT's local loop to provide services to customers. It facilitates the opening up of BT's copper network to Other Communication Providers (OCPs).	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL139	Local Loop Unbundling systems development	CL139
	<u>Description</u>	Local Loop
	This component captures the costs of development specific to Local Loop Unbundling.	Unbundling systems development
	Basis for Usage Factor Calculation	-
	The usage factors for this component are 1.	
CL144	Wholesale Access specific	CL144
	<u>Description</u>	Wholesale
	CL144 relates to Openreach Development for WLR.	Access specific
	Basis for Usage Factor Calculation	
	The usage factors for these components show how many copper lines (copper pairs) are used by each service.	
	Services such as WLR rentals are reported by lines, and we use a usage factor of 1 for WLR and SMPF Rentals, as well as WLR Connections and Transfers.	
CL160	Routing & Records	CL160
	<u>Description</u>	Routing &
	The Component captures the costs and balance sheet (Depreciation, ETG and Non-ETG Pay and Non-Pay) of Routing and Records work for provision of analogue / ISDN lines, Local Loop Unbundling (LLU) and Fibre based circuits.	Records
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	

	Component Description	Super Component
CL161	MDF Hardware jumpering	CL161
	<u>Description</u>	MDF Hardware
	This component attributes the cost of exchange jumpering activities on the Main Distribution Frame (MDF) connecting the exchange switch equipment to the exchange side (E-Side) cable.	jumpering
	Basis for Usage Factor Calculation	
	The usage factor of this component is calculated based on a survey of the amount of time to provide services for this activity. The usage factor is the time relative to the time taken in the provision of WLR: therefore if a service takes 150% of time taken for WLR the usage factor is 1.5.	
CL166	WLR Enhanced Care Resource Level 3 and 4	CL166
	<u>Description</u>	WLR Enhanced
	This component attributes the costs and MCE relating to WLR Enhanced Care engineer resource required to support Level 3 and 4 job to service	Care Resource Levels 3 and 4
	<u>Methodology</u>	
	The usage factors for this component are 1.	
CL167	WLA Enhanced Care Resource Level 3 and 4	CL167
	<u>Description</u>	WLA Enhanced
	This plant group attributes the costs and MCE relating to MPF Enhanced Care engineer resource required to support Level 3 and 4 jobs.	Care Resource Level 3 and 4
	<u>Methodology</u>	
	The usage factors for this component are 1.	
CL168	WLR Enhanced Care Resource Level 2	CL168
	<u>Description</u>	WLR Enhanced Care Resource
	This plant group holds the costs and MCE relating to WLR Enhanced Care engineer resource required to support Level 2 jobs.	Level 2
	<u>Methodology</u>	
	The usage factors calculated for each service based on the number of SML2 lines in a service in proportion to the total volumes in the service.	
CL169	WLA Enhanced Care Resource Level 2	CL169
	<u>Description</u>	WLA Enhanced
	This plant group holds the costs and MCE relating to MPF Enhanced Care engineer resource required to support Level 2 jobs.	Care Resource Level 2
	Methodology	
	The usage factors calculated for each service based on the number of SML2 lines in a service in proportion to the total volumes in the service.	
CL171	E side copper capital	CL171
	<u>Description</u>	E side copper
	Access Copper cables connect BT's exchanges to distribution points in the access network and are used to provide voice and broadband services.	capital

	Component Description	Super Component
	These cables are categorised as Exchange (E-side) and Distribution side (D-side) copper. E-side cables connect an exchange to street cabinets and D-side cables connect street cabinets to distribution points.	
	This component attributes the capital costs associated with the provision and use of E-side copper cables.	
	Basis for Usage Factor Calculation	
	This component is apportioned to services that use copper lines using a usage factor which is the product of:	
	 Number of Channels used per copper line (e.g. ISDN2 rentals are measured in lines and there are two channels per line); the relative fault rates (e.g. broadband enabled lines develop faults more often than voice only lines); and The service level (e.g. typically we expect that Openreach aims to repair MPF lines sooner than basic WLR Lines, and consequently we estimate Care Level 2 for WLR premium service costs are different from Care Level 1 costs for basic WLR services). 	
CL172	E side copper current	CL172 E side copper
	<u>Description</u>	current
	Access Copper cables connect BT's exchanges to distribution points in the access network and are used to provide voice and broadband services.	
	These cables are categorised as Exchange (E-side) and Distribution side (D-side) copper. E-side cables connect an exchange to street cabinets and D-side cables connect street cabinets to distribution points.	
	This component attributes the operational and maintenance costs associated with the provision and use of E-side copper cables.	
	Basis for Usage Factor Calculation	
	This component is apportioned to services that use copper lines using a usage factor which is the product of:	
	 Number of Channels used per copper line (e.g. ISDN2 rentals are measured in lines and there are two channels per line); the relative fault rates (e.g. broadband enabled lines develop faults more often than voice only lines); and The service level (e.g. typically we expect that Openreach aims to repair MPF lines sooner than basic WLR Lines, and consequently we estimate Care Level 2 costs for WLR premium services are different from Care Level 1 costs for basic WLR services). 	
CL173	D side copper capital	CL173
	<u>Description</u>	D side copper
	Access copper cables connect BT's exchanges to distribution points in the access network and are used to provide voice and broadband services to customers.	capital
	These cables are categorised as Exchange side (E-side) and Distribution side (D-side) copper. E-side cables connect an exchange to street cabinets and D-side cables connect street cabinets to distribution points.	
	This component attributes the capital costs related to the provision and use of D-side copper cables.	

	Component Description	Super Component
	Basis for Usage Factor Calculation	
	This component is apportioned to services that use copper lines using a usage factor which is the product of:	
	 Number of Channels used per copper line (e.g. ISDN2 rentals are measured in lines and there are two channels per line); the relative fault rates (e.g. broadband enabled lines develop faults more often than voice only lines); and The service level (e.g. typically we expect that Openreach aims to repair MPF lines sooner than basic WLR Lines, and consequently we estimate Care Level 2 costs for WLR premium services are different from Care Level 1 costs for basic WLR services). 	
CL174	D side copper current	CL174
	<u>Description</u>	D side copper
	Access copper cables connect BT's exchanges to distribution points in the access network and are used to provide voice and broadband services to customers.	current
	These cables are categorised as Exchange side (E-side) and Distribution side (D-side) copper. E-side cables connect an exchange to street cabinets and D-side cables connect street cabinets to distribution points.	
	This component attributes the operational and maintenance costs associated with the provision and use of D-side copper cables.	
	Basis for Usage Factor Calculation	
	This component is apportioned to services that use copper lines using a usage factor which is the product of:	
	 Number of Channels used per copper line (e.g. ISDN2 rentals are measured in lines and there are two channels per line); the relative fault rates (e.g. broadband enabled lines develop faults more often than voice only lines); and The service level (e.g. typically we expect that Openreach aims to repair MPF lines sooner than basic WLR Lines, and consequently we estimate Care Level 2 costs for WLR premium services is different from Care Level 1 costs for basic WLR services). 	
CL175	Local exchanges general frames equipment	CL175
	<u>Description</u>	Local
	This component captures the costs of equipment of frames at Local Exchanges.	exchanges general frames equipment
	Basis for Usage Factor Calculation	
	The usage factor of this component represents the number of jumpers, which is one per copper line for WLR and ISDN services. For ISDN services, it is divided by the number of channels (e.g. 2 for ISDN2).	
	In the case of MPF, however, it requires two per line, hence the factor is 2.0.	
CL176	Local exchanges general frames maintenance	CL176
	<u>Description</u>	Local
	This component captures the costs of maintenance of frames at Local Exchanges.	exchanges general frames maintenance

	Component Description	Super Component
	Basis for Usage Factor Calculation	
	These costs relate to the maintenance of frames. The usage factors of this component are the product of four variables:	
	 Number of copper lines used, e.g. ISDN2 is reported in channels, but there are 2 channels per line, we therefore use a usage factor of 0.5; Number of jumpers used per line, e.g. a WLR line uses one pair of jumpers per line, but MPF uses two; Care (service) level, e.g. we estimate Care Level 2 costs for WLR premium services are different from Care Level 1 costs for basic WLR services; and Relative fault rate, e.g. MPF has higher fault rates than WLR. 	
CL178	Dropwire capital & analogue NTE	CL178
	Description	Dropwire
	This component attributes the capital costs of dropwire from the Distribution Point up to and including the customer Network Terminating Equipment (NTE).	capital & analogue NTE
	Basis for Usage Factor Calculation	
	The factors are based on the usage of dropwire by the services taking into account the volume measure of the service.	
	ISDN2 has a usage factor of 0.5 and this takes account of the fact that there are 2 channels per line. The usage factor is calculated as $1/2 = 0.5$.	
CL180	Analogue line drop maintenance	CL180
	<u>Description</u>	Analogue line
	This component attributes the maintenance costs of residential dropwire from the Distribution Point up to and including the customer Network Terminating Equipment.	drop maintenance
	Basis for Usage Factor Calculation	
	We use a usage factor that takes account of:	
	 The number of copper lines used (e.g. ISDN2 rentals are measured in lines and there are two channels per line); The relative fault rates (e.g. broadband enabled lines develop faults more often than voice only lines); and The service level (e.g. Openreach aims to repair MPF lines sooner than basic WLR Lines). 	
CL182	Abortive Visits	CL182 Abortive
	<u>Description</u>	Visits
	This component attributes Abortive Visit Charges (AVC). An Abortive Visit is applied where an appointment is agreed for work at an End User's Site and the engineer arrives within the appointment slot but is unable to carry out the work at, or gain access to, the End User Site.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL183	Analogue line cards	CL183
	<u>Description</u>	Analogue line
	Line cards are the electronic cards in the exchange that provide connectivity to the switch. This component attributes the costs of the line cards that provide customer access into the BT network. They sit within	cards

	Component Description	Super Component
	the Concentrator Asset of Local exchanges and support Residential and Business Line rental products.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL184	ISDN2 line cards	CL184
	<u>Description</u>	ISDN2 line
	Line cards are the electronic cards in the exchange that provide connectivity to the switch. This Component attributes the costs associated with the Integrated Services Digital Network 2 (ISDN2) line cards.	cards
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL189	ISDN30 access	CL189
	<u>Description</u>	ISDN30 access
	This component captures the 'Access' or 'Local End' costs associated with ISDN30 circuits. These costs consist of access copper, access fibre, backhaul fibre and network equipment costs including overheads.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL190	ISDN30 line cards	CL190
	<u>Description</u>	ISDN30 line
	Line cards are the electronic cards in the exchange that provide connectivity to the switch. This component attributes the costs associated with the Integrated Services Digital Network 30 (ISDN30) line cards.	cards
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL192	NGA E-side Copper Cable	CL192
	<u>Description</u>	NGA E side
	Access copper cables connect BT's exchanges to distribution points in the access network and are used to provide voice and broadband services to customers.	Copper Cable
	These cables are categorised as Exchange side (E-side) and Distribution side (D-side) copper. E-side cables connect an exchange to street cabinets and D-side cables connect street cabinets to distribution points.	
	This component attributes the capital costs related to the provision and use of NGA E-side Copper cable.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL193	Expedite Provision Costs	CL193
	<u>Description</u>	Expedite
	This component attributes the costs and MCE relating to Expedite Provision jobs.	Provision Costs

	Component Description	Super Component
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL195	NGA Visit Assure	CL195
	<u>Description</u>	NGA Visit
	This component attributes the costs and MCE relating to NGA Visit Assure jobs	Assure
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL197	FTTC Development	CL197
	<u>Description</u>	FTTC
	This component attributes the development costs for Fibre to The Cabinet (FTTC. This digital subscriber line access multiplexer (DSLAM) technology is used in delivering the rollout of the NGA network, which is used to supply super-fast broadband products.	Development
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL198	FTTP Development	CL198
	<u>Description</u>	FTTP
	This component attributes the development costs for Fibre To The Premises (FTTP).	Development
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL570	OR Service Centre - Provision Analogue/ISDN2	CL570
	<u>Description</u>	OR Service
	This component attributes the costs of Openreach service management centres that deal with the provision of WLR and ISDN2 services.	Centre - Provision Analogue/ISDN
	Basis for Usage Factor Calculation	2
	The usage factors for this component are 1.	
CL571	OR Service Centre - Provision ISDN30	CL571
	<u>Description</u>	OR Service
	This component attributes the costs of Openreach service management centres that deal with the provision of WLR and ISDN30 services.	Centre - Provision ISDN30
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL572	OR Service Centre - Provision WLA	CL572
	<u>Description</u>	OR Service
	This component attributes the costs of Openreach service management centres that deal with the provision of LLU.	Centre - Provision WLA
	Basis for Usage Factor Calculation	
	These components are allocated at Layer 850 (Openreach services and part services) in proportion to volumes so we use a usage factor of 1.	

	Component Description	Super Component
	For the internal services there is a further attribution step that allocates the costs from Openreach part-service to a final service in a downstream market. An additional factor is introduced at this stage which represents the difference between upstream and downstream volumes. This factor will not affect the attribution of costs between internal and external services.	Component
CL573	OR Service Centre - Provision Ethernet	CL573
	<u>Description</u>	OR Service
	This component captures the costs of Openreach service management centres that deal with the provision of Ethernet services.	Centre - Provision CISBO
	Basis for Usage Factor Calculation	
	The usage factor is based on the unit of volume of the Ethernet service. Some services are measured in Local Ends whilst others are measured in circuits. The factor derived takes account of the different unit measure to apportion costs equally by volume. WES and BES volumes are expressed in Local Ends therefore circuit volumes for these have a Usage Factor of 0.5. In all other instances (e.g. EBD) Usage Factors for this component are 1.	
CL574	OR Service Centre - Provision GEA	CL574
	<u>Description</u>	Service Centre
	This component captures the cost and balance sheet - Service Centre for the Provision of Next Generation Access (NGA).	Provision GEA
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL575	OR Service Centre - Assurance Analogue/ISDN2	CL575
	<u>Description</u> This component captures the costs of Openreach service management centres that deal with the repair of ISDN2 and WLR services (i.e. traditional telephone lines	OR Service Centre - Assurance Analogue/ISDN
	Basis for Usage Factor Calculation	2
	The usage factors for this component are 1.	
CL577	OR Service Centre - Assurance WLA	CL577
	<u>Description</u>	OR Service
	This component captures the costs of Openreach service management centres that deal with the repair of WLA services e.g. Local Loop Unbundling (LLU).	Centre - Assurance WLA
	Basis for Usage Factor Calculation	
	The usage factor apportions cost equally by volume i.e. all factors are 1.00 except in the case of MPF services where the ratio of the fault rate for MPF to SMPF is used.	
CL579	OR Service Centre - Assurance GEA	CL579
	<u>Description</u>	Service Centre Assurance GEA
	This component captures the costs of Openreach service management centres that deal with the repair of NGA (Next Generation Access) services.	Assurance GEA

	Component Description	Super Component
	Basis for Usage Factor Calculation	- Component
	The usage factors for this component are 1.	
CL590	Service Level Guarantees WLA External	CL590
	<u>Description</u>	Service Level
	This component captures the costs of Openreach Service Level Agreements for WLA External.	Guarantees WLA
	Basis for Usage Factor Calculation	
	This component contains [service level guarantee payments/refunds to customers of WLA services. The usage factors are a combination of three elements:	
	 The relative total amounts paid in compensation for repairs (i.e. in respect of rentals) and provision delays (i.e. in respect of connections); The relative price of the individual services; and The relative fault rate between SMPF, MPF and NGA services. 	
CL591	Service Level Guarantees – WLA - internal	CL951 Service
	<u>Description</u>	Level Guarantees
	This component captures the costs of Openreach Service Level Agreements for WLA Internal.	WLA Internal
	Basis for Usage Factor Calculation	
	This component contains service level guarantee payments/refunds to customers of WLA services. The usage factors are a combination of three elements: The relative total amounts paid in compensation for repairs (i.e. in respect of rentals) and provision delays (i.e. in respect of connections); The relative price of the individual services; and The relative fault rate between SMPF, MPF and NGA services.	
CL601	SLG Ethernet Provision External	CL601
	<u>Description</u>	SLG Ethernet
	This component contains 'Service Level Guarantee' costs associated with Ethernet provision. Compensation is paid to customers if Openreach fails to meet agreed timescales for Provision or Repair activities.	Provision External
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	
CL602	SLG Ethernet Assurance External	CL602
	<u>Description</u>	SLG Ethernet
	This component contains 'Service Level Guarantee' costs associated with Ethernet assurance. Compensation is paid to customers if Openreach fails to meet agreed timescales for Provision or Repair activities.	Assurance External
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	

	Component Description	Super Component
CL603	SLG WLR Provision External	CL603
	<u>Description</u>	SLG WLR
	This component contains 'Service Level Guarantee' costs associated with WLR provision. Compensation is paid to customers if Openreach fails to meet agreed timescales for Provision or Repair activities.	Provision External
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	
CL604	SLG WLR Assurance External	CL604
	<u>Description</u>	SLG WLR
	This component contains 'Service Level Guarantee' costs associated with WLR assurance. Compensation is paid to customers if Openreach fails to meet agreed timescales for Provision or Repair activities.	Assurance External
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	
CL605	SLG Ethernet Provision Internal	CL605
	<u>Description</u>	SLG Ethernet
	This component contains 'Service Level Guarantee' costs associated with Ethernet provision. Compensation is paid to customers if Openreach fails to meet agreed timescales for Provision or Repair activities.	Provision Internal
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	
CL606	SLG Ethernet Assurance Internal	CL606
	<u>Description</u>	SLG Ethernet
	This component contains 'Service Level Guarantee' costs associated with Ethernet provision. Compensation is paid to customers if Openreach fails to meet agreed timescales for Provision or Repair activities.	Assurance Internal
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	
CL607	SLG WLR Provision Internal	CL607
	<u>Description</u>	SLGWLR
	This component contains 'Service Level Guarantee' costs associated with WLR provision. Compensation is paid to customers if Openreach fails to meet agreed timescales for Provision or Repair activities.	Provision Internal
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	

	Component Description	Super Component
CL611	SLG WLR Assurance External	CL611
	<u>Description</u>	SLG WLR
	This component contains 'Service Level Guarantee' costs associated with WLR assurance. Compensation is paid to customers if Openreach fails to meet agreed timescales for Provision or Repair activities.	Assurance External
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	
CL612	IFRS 15 Deferred Revenue Internal	CL612
	<u>Description</u>	IFRS 15
	This component contains deferred revenue associated with IRFS 15.	Deferred Revenue
	Basis for Usage Factor Calculation	Internal
	The usage factors for this component are based on the service average prices.	
CL613	IFRS 15 SLG Internal	CL613
	<u>Description</u>	IFRS 15 SLG
	This component contains 'Service Level Guarantee' costs associated with IRFS 15.	Internal
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	
CL614	IFRS 15 Deferred Revenue External	CL614
	<u>Description</u>	IFRS 15
	This component contains deferred revenue associated with IRFS 15.	Deferred Revenue
	Basis for Usage Factor Calculation	External
	The usage factors for this component are based on the service average prices.	
CL615	IFRS 15 SLG External	CL615
	<u>Description</u>	IFRS 15 SLG
	This component contains 'Service Level Guarantee' costs associated with IRFS 15.	External
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on the service average prices.	
CL941	Cumulo Rates NGA	CL941
	<u>Description</u>	Cumulo Rates
	This component contains the Cumulo costs for the NGA (Next Generation Access) assets.	NGA
	Basis for Usage Factor Calculation	
	The Cumulo charge is apportioned to the NGA services only on the basis of Profit Weighted Net Replacement Costs (PWNRC).	

	Component Description	Super Component
CL942	Cumulo Rates Non NGA – Non Openreach	Component
	<u>Description</u>	
	This component contains the Cumulo costs for the Non NGA (Next Generation Access) assets for BT Enterprise	
	Basis for Usage Factor Calculation	
	The Cumulo charge is apportioned to the Non NGA BT Enterprise services only on the basis of Profit Weighted Net Replacement Costs (PWNRC).	
CL943	Cumulo Rates Non NGA - Openreach	
	<u>Description</u>	
	This component contains the Cumulo costs for the Non NGA (Next Generation Access) assets for Openreach.	
	Basis for Usage Factor Calculation	
	The Cumulo charge is apportioned to the Non NGA OR services only on the basis of Profit Weighted Net Replacement Costs (PWNRC).	
CL948	GEA FTTP Access Spine Fibre	CL948
	<u>Description</u>	GEA FTTP
	This component contains costs for the provision; installation; recovery; and depreciation of NGA FTTP Access Spine fibre cable i.e. the fibre cables between the Exchange and the aggregation node in the fibre network, as well as the relative costs in providing fibres between BT Exchanges (i.e. WLA Main Link costs), which are derived from a study of the fibre infrastructure network.	Access Spine Fibre
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL949	GEA FTTP Distribution Fibre Spine	CL949
	<u>Description</u>	GEA FTTP
	This component contains costs for the provision; installation; recovery; and depreciation of NGA FTTP distribution fibre cable i.e. the fibre cables between the Cabinet and the customer premises.	Distribution Fibre Spine
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL950	GEA FTTC Access Fibre Spine	CL950
	<u>Description</u>	GEA FTTC
	This component contains costs for the provision; installation; recovery; and depreciation of NGA FTTC Access fibre spine cable i.e. the fibre cables between the Exchange and the aggregation node in the fibre network, as well as the relative costs in providing fibres between BT Exchanges (i.e. WLA Main Link costs), which are derived from a study of the fibre infrastructure network.	Access Fibre Spine
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	

	Component Description	Super Component
CL951	GEA FTTC Distribution Fibre Spine	CL951
	<u>Description</u>	GEA FTTC
	This component contains costs for the provision; installation; recovery; and depreciation of NGA FTTC distribution fibre cable i.e. the fibre cables between the Cabinet and the aggregation node in the fibre network.	Distribution Fibre Spine
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL952	GEA FTTC Electronics	CL952
	<u>Description</u>	GEA FTTC
	This component captures the costs of the exchange based electronics required for the delivery of FTTC services. It connects the high-speed digital communications channels from the customer to the backhaul network.	Electronics
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL953	GEA DSLAM Cabinets	CL953
	<u>Description</u>	GEA DSLAM
	This component captures the costs of the DSLAM (digital subscriber line access multiplexer) network device required for the delivery of GEA (Generic Ethernet Access). It connects multiple customer digital subscriber line (DSL) interfaces to a high-speed digital communications channel using multiplexing techniques.	Cabinets
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL954	GEA FTTC Customer Site Electronics	CL954
	<u>Description</u>	GEA FTTC
	This component attributes the costs for customer site Super-Fast Fibre Broadband provision activity. It covers costs for customer site activity up to the customer NTE. This includes jumpering activity at the PCP.	Customer Site Electronics
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on engineering time data.	
CL955	GEA FTTC Repairs	CL955
	<u>Description</u>	GEA FTTC
	This component attributes the reactive repair to the FTTC Networks.	Repairs
	Basis for Usage Factor Calculation	
	The usage factor for this component is 1.	
CL956	GEA FTTP Repairs	CL956
	<u>Description</u>	GEA FTTP
	This component attributes the reactive repair to the FTTP Networks.	Repairs
	Basis for Usage Factor Calculation	
	The usage factor for this component is 1.	

	Component Description	Super Component
CL957	GEA FTTP Provisions	CL957
	<u>Description</u>	GEA FTTP
	This component contains provision costs for the Fibre to the Premises connection services.	Provisions
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL958	GEA FTTC Provisions	CL958
	<u>Description</u>	GEA FTTC
	This component contains provision costs for the Fibre to the Cabinet connection services.	Provisions
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on engineering time data.	
CL961	GEA FTTP Electronics	CL961
	<u>Description</u>	GEA FTTP
	This component captures the costs of the exchange based electronics required for the delivery of FTTP services. It connects the high-speed digital communications channels from the customer to the backhaul network.	Electronics
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL962	GEA Cable Links	CL962
	<u>Description</u>	GEA Cable
	This component contains the costs of the provision of GEA cable links.	Links
	Basis for Usage Factor Calculation	
	The usage factors for this component is based on the weighted average cost of Short Form Pluggables (SFPs) used for the 1 Gbit and 10 Gbit Cable Links services.	
CL963	GEA FTTP Customer Site Installation	CL963
	<u>Description</u>	GEA FTTP
	This component attributes the costs for customer site Ultra-Fast Fibre Broadband provision activity. It covers costs for customer site activity up to the customer NTE.	Customer Site Installation
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL990	FTTP Funded Fibre Rollout Spend	CL990
	<u>Description</u>	FTTP Funded
	This component attributes the funded region fibre rollout spend for FTTP services.	Fibre Rollout Spend
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	

	Component Description	Super Component
CL997	FTTP Fibre Rollout Funding	CL997
	<u>Description</u>	FTTP Fibre
	This component attributes the funding received in relation to BT's fibre rollout for FTTP services.	Rollout Funding
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL998	FTTC Fibre Rollout Funding	CL998
	<u>Description</u>	FTTC Fibre
	This component attributes the funding received in relation to BT's fibre rollout for FTTC services.	Rollout Funding
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CL999	FTTC Funded Fibre Rollout Spend	CL999
	<u>Description</u>	FTTC Funded
	This component attributes the funded region fibre rollout spend for FTTC services.	Fibre Rollout Spend
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CN617	Ethernet Backhaul Direct - Extended Reach	CN617
	<u>Description</u>	Ethernet
	This component attributes the capital costs between core Nodes for links that are providing extended reach to EBD services.	Backhaul Direct - Extended Reach
	Basis for Usage Factor Calculation	
	This component is used by Ethernet Backhaul Direct (EBD) 10Gbit/s and EBD 1Gbit/s services.	
	The usage factors for this component reflect the relative costs of providing transponders for 10Gbit/s services compared to 1Gbit/s services.	
	Basis for Usage Factor Calculation	
	This component is used by Ethernet Backhaul Direct (EBD) 10Gbit/s and EBD 1Gbit/s services.	
	The usage factors for this component reflect the relative costs of providing transponders for 10Gbit/s services compared to 1Gbit/s services.	
CN619	Ethernet Backhaul Direct - Active	CN619
	<u>Description</u>	Ethernet
	This component attributes the capital costs associated with transmission electronics between WDM Multi Service Access Node (MSAN) and a Metro Node.	Backhaul Direct - Active
	Basis for Usage Factor Calculation	
	This component is used by Ethernet Backhaul Direct (EBD) 10Gbit/s and EBD 1Gbit/s services. The usage factors for this component reflect the	

	Component Description	Super Component
	relative costs of providing transponders for 10Gbit/s services compared to 1Gbit/s services.	
CN620	Ethernet Backhaul Direct - Passive	CN620
	<u>Description</u>	Ethernet
	This component attributes the backhaul fibre and duct between WDM Multi Service Access Node (MSAN) and a Metro Node.	Backhaul Direct - Passive
	Basis for Usage Factor Calculation	
	This component is used by Ethernet Backhaul Direct (EBD) 10Gbit/s and EBD 1Gbit/s services.	
	The usage factors for this component take into account the different CISBO market areas. It represents the relative costs of providing fibre links between BT exchanges in the different CISBO market areas. It is derived from a study of the fibre infrastructure in different parts of the network. It also takes account of the different average lengths of circuit by geography derived from Revenue data.	
CN623	Ethernet Backhaul Direct – Resilience Active	CN623
	<u>Description</u>	Ethernet
	This component attributes the capital costs associated with transmission electronics between Metro Nodes that are used for providing resilience to EBD services.	Backhaul Direct - Resilience Active
	Basis for Usage Factor Calculation	
	This component is used by Ethernet Backhaul Direct (EBD) 10Gbit/s and EBD 1Gbit/s services. The usage factors for this component reflect the relative costs of providing transponders for 10Gbit/s services compared to 1Gbit/s services.	
CN624	Ethernet Backhaul Direct – Resilience Passive	CN624
	<u>Description</u>	Ethernet
	This component attributes the backhaul, fibre and duct costs between Metro Nodes for links that are used for providing resilience to EBD services.	Backhaul Direct - Resilience Passive
	Basis for Usage Factor Calculation	
	This component is used by Ethernet Backhaul Direct (EBD) 10Gbit/s and EBD 1Gbit/s services. The usage factors for this component take into account the different CISBO market areas and are the same as used for CN620 (Ethernet Backhaul Direct – Passive).	
CN666	TV Connect	CN666
	<u>Description</u>	TV Connect
	TVC provides headend capabilities for receiving, and optionally encoding, TV channels provided by an ISP. It then distributes the channels over 21C to the Openreach NGA interconnection points and consumes capacity from Openreach to deliver the channels to the ISP end users.	
	The TV Connect traffic will be delivered across the end to end network over a separate logical path from the WBC data traffic.BT Enterprise will provide interfaces to support provision, repair, service monitoring and billing. For TVC costs BT Enterprise pays for dedicated (VLAN) capacity within 21C, connectivity to Openreach and for infrastructure in the TVC Headend.	

	Component Description	Super Component
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CN854	Combi Card - Broadband	CN854
	<u>Description</u>	Combi card
	Combi cards can be used to provide Voice services or Broadband. This component attributes the costs for the Broadband associated costs within the Combi card. The Combi card is situated in the MSAN.	broadband
	Basis for Usage Factor Calculation	
	The usage factors for this component are based on usage by location.	
CN860	Core/Metro (broadband)	CN860
	<u>Description</u>	Core/Metro
	This component contains costs for the Broadband associated costs within the Metro and Core nodes. Core and Metro nodes are not used exclusively for Broadband however this component captures the cost within these assets that are consumed by Broadband products.	(broadband)
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1 except for TV Connect (TVC) for which we calculate the total channel bandwidth required by TVC and the number of Core/Metro nodes it uses, and factor by this percentage of the total channel bandwidth (currently 0.75).	
CN868	iNode voice call set-up	CN868
	<u>Description</u>	iNode voice call
	The iNode represents the part of the network that contains intelligence associated with routing, verifying and controlling end to end service.	set-up
	This Component attributes the capital costs of Voice Call Set-Up functionality contained within iNode.	
	Basis for Usage Factor Calculation	
	The routing factors for 21CN voice components have been derived from the 20CN call routing information and adjusted to show how calls would be routed across the 21CN network. The volume of calls crossing the 21CN network is very small, limited to the Pathfinder trial in Cardiff.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CN879	Core Metro connectivity OR	CN879
	<u>Description</u>	Core Metro
	This component is allocated costs relevant to the dedicated core to core and metro to core 10Gbit/s links that are not used to carry wholesale broadband, voice or Ethernet services.	OR OR
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CN882	High band customer data card	CN882
	<u>Description</u>	High band
	This component captures all Ethernet Switch costs for downstream Ethernet and MEAS (both Residual) services.	customer data card

	Component Description	Super Component
	Basis for Usage Factor Calculation	Component
	Total costs for the Services using this component are modelled in the 21CN model using capex that has been depreciated over the life of the given asset/s. These costs are modelled through the 21CN model with all agreed assumptions applied and costs are allocated to the HE/MEAS services. We take the Product/Service volumes for HE/MEAS from the 21CN model and divide the aforementioned total costs by the volume to derive a unit price. We use this price as a factor as this represents the cost apportionment of the depreciation.	
	The Services are:	
	 SE586 Ethernet – Premium (GS) – <10M copper SE587 Ethernet – Premium (GS) – 10M fibre SE588 Ethernet – Premium (GS) – 100M fibre SE589 Ethernet – Premium (GS) – 1G fibre SE590 Ethernet – Premium (GS) – 10G fibre SE591 Premium – SFBB – FTTC (Excludes MEAS) SE592 Ethernet – MEAS (MNOs) 100M fibre SE593 Ethernet – MEAS (MNOs) 1G fibre SE594 Ethernet – MEAS (MNOs) 10G fibre 	
CN889	Metro BRAS and MSE	CN889
	<u>Description</u>	Metro BRAS
	This component attributes the cost of capital expenditure incurred for the deployment of the BRAS. BRAS routes traffic to and from the digital subscriber line access multiplexers (DSLAM) on an Internet service provider's (ISP) network. The BRAS sits at the core of an ISP's network, and aggregates user sessions from the access network.	and MSE
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CN890	Broadband MSAN Access	CN890
	<u>Description</u>	Broadband
	This component captures the maintenance (Profit and Loss, Pay, Non-Pay, Materials etc.) costs of the electronics in the backhaul transmission between the MSAN and up to and including the access port on the Ethernet Switch that are relevant to Broadband products. The backhaul is a shared element of the network.	MSAN Access
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CN891	Ethernet Switch BB	CN891
	<u>Description</u>	Ethernet
	This component captures the maintenance (Pay, Non-Pay, Materials etc.) costs of the electronics in the backhaul transmission contained in the Ethernet Switch that is the element of the Ethernet Switch which is not used for access. This is a shared element of the network.	Switch BB
	Basis for Usage Factor Calculation	
	The usage factors to services for this component are 1.	

	Component Description	Super Component
CN894	Core Metro Broadband shared	CN894
	<u>Description</u>	Core Metro
	This component contains costs for the Broadband associated costs within the Metro and Core nodes. Core and Metro nodes are not used exclusively for Broadband however this component captures the cost within these assets that are consumed by Broadband products. This Component captures a portion of the Large P Router costs.	Broadband shared
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CN896	MSAN Access SFBB	CN896
	<u>Description</u>	MSAN Access
	This component captures the maintenance (Profit and Loss, Pay, Non-Pay, Materials etc.) costs of the Access Card in the Ethernet Switch carrying Fibre delivered Super-Fast Broadband (SFBB).	SFBB
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CN897	WBMC Dedicated Link	
	<u>Description</u>	
	This Component captures the Capital costs associated with transmission electronics and length related elements between a Core Node and another Core Node for dedicated core link and length traffic, which are only relevant to WBMC dedicated services and do not share their transmission with other services such as WBMC shared.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CN902	Metro Switching IP VPN	CN902
	<u>Description</u>	Metro Switicing IP VPN
	This component captures the Metro to Core transmission costs for downstream Ethernet and MEAs (both Residual) services.	
	Basis for Usage Factor Calculation	
	Total costs for the Services using this component are modelled in the 21CN model using capex that has been depreciated over the life of the given asset/s. These costs are modelled through the 21CN model with all agreed assumptions applied and costs are allocated to the HE/MEAS services.	
	We take the Product/Service volumes for HE/MEAS from the 21CN model and divide the aforementioned total costs by the volume to derive a unit price. We use this price as a factor as this represents the cost apportionment of the depreciation.	
	The Services are:	
	Service Description	
	SE586 Ethernet - Premium (GS) - <10M copper SE587 Ethernet - Premium (GS) - 10M fibre	
	SE587 Ethernet - Premium (GS) - 10M fibre SE588 Ethernet - Premium (GS) - 100M fibre	
	SE589 Ethernet - Premium (GS) - 1G fibre	
	SE590 Ethernet - Premium (GS) - 10G fibre	
	SE591 Premium - SFBB - FTTC (Excludes MEAs)	

	Comp	onent Des	cription		Super Component
		SE592	Ethernet - MEAs (MNOs) 100M fibre		Component
		SE593	Ethernet - MEAs (MNOs) 1G fibre		
		SE594	Ethernet - MEAs (MNOs) 10G fibre		
CN903	Metro	o-Core Broa	adband transmission		CN903
	Descr	<u>ription</u>			Metro-core
	Metro	nodes con	contains costs for the transmission between Core a sumed by Broadband products. These assets comp f Wave Division Multiplexing and Fibre.		broadband transmission
	<u>Basis</u>	for Usage F	actor Calculation		
	for wh	nich we calc umber of Me	s for this component are 1 except for TV Connect (ulate the total channel bandwidth required by TVC etro-Core Transmission routes it uses, and factor b e total channel bandwidth (currently 0.60).	Cand	
CN906	Core	Core Broad	band Transmission		CN906
	Descr	ription			Core Core
	This c	component of stream Who	captures the Core to Core transmission costs for blesale Broadband Managed Connect for Copper a ervices and TV Connect.	and	Broadband Transmission
	Basis	for Usage F	actor Calculation		
	for wh	nich Techno and the num	s for this component are 1 except for TV Connect (logy calculate the total channel bandwidth require ber of Core nodes it uses, and factor by this percer nel bandwidth.	ed by	
CO210	Local	exchange _l	processor duration		CO210
	Descr	ription			Local exchange
	Host	Processor o	nanges (DLE) form two distinct assets Concentrator r DLE. Only the Host costs get allocated to this oncentrator switching has its own components.	ors and	processor duration
	activi link is provid	ties associa made acros ding tones, i	ted via this component relate to activities required ted with holding a speech path open for the period ss the network. It includes the costs associated with recorded announcements, and the conversations ed and calling lines within Local Exchanges.	the	
	Basis	for Usage F	actor Calculation		
	The u	sage factor	s for this component are 1.		
			ll amount of usage factors are apportioned to transit due to the routing of a small percentage of	calls.	
	The F		omponent to Service has been frozen using the 20)18	
CO212	Local	exchange	processor set-up		CO212
	<u>Descr</u>	ription			Local exchange
			attributes the costs of the activities required to set h path on the network.	up an	processor set up
			ignalling and processing needed to set up and clea local exchanges are included in this component.	ar	
			, calls from other CPs to BT and international voice sed within this component.	e calls	

	Component Description	Super Component
	The component is one part of two with the other (CO210), dealing with the call duration and clearing the call whereby the speech path needs to be held open during the time the link is open.	Component
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.In addition a small amount of usage factors are apportioned to conveyance and transit due to the routing of a small percentage of calls.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO214	Local exchange concentrator set-up	CO214
	<u>Description</u>	Local exchange
	This component relates to the activities required to set up an end to end speech path on the network and covers the call related costs contained in the concentrator asset and chiefly the activities required to establish a connection.	concentrator set up
	Traditional PSTN calls, calls from other CPs to BT and international voice calls are all attributed by this component.	
	This component, along with CO215 (Local exchange concentrator duration) attribute the costs of call duration and of holding paths open for the duration of the call. Both are needed to complete the end to end speech path.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1. This is apportioned to all relevant call origination and termination services	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO215	Local exchange concentrator duration	CO215
	<u>Description</u>	Local exchange
	This component relates to the activities required to set up an end to end speech path on the network and covers the call related costs contained in the concentrator asset and chiefly the activities required for holding a speech path open for the duration of the call.	concentrator duration
	Traditional PSTN calls, calls from other CPs to BT and international voice calls are all attributed by this component.	
	This component, along with CO214 (Local exchange concentrator set-up) attribute the costs of call duration and of holding paths open for the duration of the call. Both are needed to complete the end to end speech path.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1. This is apportioned to all relevant call origination and termination services.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO227	ASU switches	CO227

	Component Description	Super Component
	<u>Description</u>	ASU switches
	This component attributes the costs of the Advanced Services Units (ASU). ASU assets consist of DMS100 switches and equipment required to interface to equipment sited at customer premises - e.g. PBX's (Private Branch Exchanges), Telephones, Faxes, and Modems etc.	
	It supports products such as Featurenet which enables customers to have facilities which are normally available only on their PBX.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1. The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO254	Project Services	CO254
	<u>Description</u>	Project Services
	Project Services relate to project management services provided by Openreach to Communication Providers who seek coordination of a programme of orders, such as Ethernet provision, that typically include an engineer visit.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CO292	Caller Display	CO292
	<u>Description</u>	Caller Display
	This component contains costs associated with Caller display, and apportions to those WLR customers which opt into the caller display service.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CO325	Remote - local transmission link	CO325
	<u>Description</u>	Remote local
	This component forms part of the PSTN (Public Switched Telephony Network) Call Origination/Termination Standard Services and attributes the costs of the transmission electronics associated with the link between the Remote concentrator and the Local exchange.	transmission link
	Basis for Usage Factor Calculation	
	The usage factors represent the percentage of calls routed across these components.	
	Part services are used where the rest of BT purchase EPPCs from Openreach in order to provide backhaul between local exchanges and main exchanges. The routing factors for all destination services are 0.83.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO326	Remote - local transmission length	CO326
	<u>Description</u>	Remote local
	This component forms part of the PSTN (Public Switched Telephony Network) Call Origination/Termination Standard Services and attributes the costs of the transmission electronics associated with the length between the Remote concentrator and the Local exchange.	transmission length

	Component Description	Super Component
	Basis for Usage Factor Calculation	- Строполс
	The usage factors represent the percentage of calls routed across these components.	
	Part services are used where the rest of BT purchase EPPCs from Openreach in order to provide backhaul between local exchanges and main exchanges.	
	The routing factors for all destination services are 1.62.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO330	Local - tandem transmission link	CO330
	<u>Description</u>	Local - Tandem
	This component forms part of the PSTN (Public Switched Telephony Network) Call Origination/Termination Standard Services and attributes the costs of the transmission electronics associated with the link between the Local exchange and Tandem transmissions.	transmission link
	Basis for Usage Factor Calculation	
	The usage factors represent the percentage of calls routed across these components.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO360	Inter tandem transmission link	CO360
	<u>Description</u>	Inter tandem
	This component forms part of the PSTN (Public Switched Telephony Network) Call Origination/Termination Standard Services and attributes the costs of the transmission electronics associated with the link between Tandem transmissions.	transmission link
	Basis for Usage Factor Calculation	
	The usage factors represent the percentage of calls routed across these components.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO379	Point of Handover electronics	CO379
	<u>Description</u>	Point of Handover
	A POH is a high capacity link, which connects an Other Communication Provider's network with that of BT's, and comprises the physical infrastructure (duct and fibre) as well as electronics at both or one end of the link. It is one element of a Partial Private Circuit (PPC).	electronics
	A PPC provides connectivity between OCPs (other than BT) and an end user, across BTs network. The POH provides a single high speed connection between BT and an OCP for an aggregated group of PPCs.	
	This component attributes the costs of the electronics associated with providing a POH.	
	Basis for Usage Factor Calculation	

	Component Description	Super Component
	These are costing usage factors based on analysis of the ratio of depreciation costs to maintenance costs in this component.	
	The usage factors are calculated such that when applied to rental and connection volumes the costs relating to depreciation are allocated to connections and those relating to maintenance are allocated to rentals.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CO413	2Mbps and above PC link connection CCT provision	CO413
	<u>Description</u>	2Mbps and
	This component attributes the costs associated with the provision and testing of 2Mb and above links for inland private circuits.	above PC link connection CCT provision
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CO432	PC rental 64Kbps link local end	CO432
	<u>Description</u>	PC rental 64Kbps link
	This component attributes the capital and maintenance costs associated with 64kbit/s (Kilostream) private circuits.	local end
	Basis for Usage Factor Calculation	
	The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services.	
	The factor for SE760B (OR EPPC External 3rd Party POH Rental 64kbit) is set at 0.17 following Ofcom's review of PoH pricing in 2011.	
	The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data.	
CO434	PC rental 34Mbps link local end	CO434
	<u>Description</u>	PC rental
	This component attributes the capital and maintenance costs associated with 34Mbps (Kilostream) private circuits.	34Mbps link local end
	Basis for Usage Factor Calculation	
	The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services.	
	The factor for SE761B (OR EPPC External 3rd Party POH Rental 34-45mbit) is set at 0.17 following Ofcom's review of PoH pricing in 2011.	
	The usage factor for the main local end services is 1 as each service uses one component.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CO436	PC rental 140Mbps link local end	CO436

The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party POH services. The factor for SE762B (OR EPPC External 3rd Party POH Rental 155mbit) is set at 0.17 following Oftcom's review of POH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO438 PC rental 2Mbps local end copper Description This component attributes the depreciation and overheads associated with the copper and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. This component also attributes the cost of duct where the copper resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with POH, which are captured in local end components, into third party POH services. The factor for SE763B (OR EPPC External 3rd Party POH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of POH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Pactors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with POH, which are captured in local end components, into third party POH services. The factors for SY764B (OR EPPC Ext and Party POH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of POH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one		Component Description	Super Component
In eusage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE762B (OR EPPC External 3rd Party POH Rental 155mbit) is set at 0.17 following Ofcom's review of POH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO438 PC rental 2Mbps local end copper Description This component attributes the depreciation and overheads associated with the copper and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. This component also attributes the cost of duct where the copper resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE763B (OR EPPC External 3rd Party PoH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Com		Basis for Usage Factor Calculation	PC rental
155mbit) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO438 PC rental 2Mbps local end copper Description This component attributes the depreciation and overheads associated with the copper and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. This component also attributes the cost of duct where the copper resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE763B (OR EPPC External 3rd Party PoH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Clary and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Clary and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Clary an		associated with PoH, which are captured in local end components, into	•
one component. The Factors for Component to Service has been frozen using the 2017 P12 data. PC ental 2Mbps local end copper Description This component attributes the depreciation and overheads associated with the copper and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. This component also attributes the cost of duct where the copper resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE763B (OR EPPC External 3rd Party PoH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring			
This component attributes the depreciation and overheads associated with the copper and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. This component also attributes the cost of duct where the copper resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE763B (OR EPPC External 3rd Party PoH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		one component. The Factors for Component to Service has been frozen	
This component attributes the depreciation and overheads associated with the copper and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. This component also attributes the cost of duct where the copper resides. **Basis for Usage Factor Calculation** The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE763B (OR EPPC External 3rd Party PoH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. **CO439** **PC rental 2Mbps local end fibre** **Description** This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. **Basis for Usage Factor Calculation** The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. **CO445* Ethernet Monitoring Platform* **Description* This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring	CO438	PC rental 2Mbps local end copper	CO438
with the copper and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. This component also attributes the cost of duct where the copper resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE763B (OR EPPC External 3rd Party PoH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		<u>Description</u>	
Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE763B (OR EPPC External 3rd Party PoH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		with the copper and electronics providing access from the BT exchange to	-
The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE763B (OR EPPC External 3rd Party PoH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		This component also attributes the cost of duct where the copper resides.	
associated with PoH, which are captured in local end components, into third party PoH services. The factor for SE763B (OR EPPC External 3rd Party PoH Rental 2mbit Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		Basis for Usage Factor Calculation	
Copper) is set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		associated with PoH, which are captured in local end components, into	
one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO439 PC rental 2Mbps local end fibre Description This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. Basis for Usage Factor Calculation The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		· ·	
This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. **Basis for Usage Factor Calculation** The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. **CO445** Ethernet Monitoring Platform* **Description** This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring*		one component. The Factors for Component to Service has been frozen	
This component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. **Basis for Usage Factor Calculation** The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. **CO445** **Ethernet Monitoring Platform** **Description** This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring**	CO439	PC rental 2Mbps local end fibre	CO439
Inis component attributes the depreciation and overheads associated with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These components also include the cost of duct where the fibre resides. **Basis for Usage Factor Calculation** The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. **CO445** **Ethernet Monitoring Platform** **Description** This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		<u>Description</u>	
The usage factor for this component is used to transfer the costs associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		with the fibre and electronics providing access from the BT exchange to the customer premises for 2Mbps Private Circuit components. These	_
associated with PoH, which are captured in local end components, into third party PoH services. The factors for SY764B (OR EPPC Ext 3rd Party PoH Rental 2mbit CLZ) and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		Basis for Usage Factor Calculation	
and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are set at 0.17 following Ofcom's review of PoH pricing in 2011. The usage factor for the main local end services is 1 as each service uses one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		associated with PoH, which are captured in local end components, into	
one component. The Factors for Component to Service has been frozen using the 2017 P12 data. CO445 Ethernet Monitoring Platform Description This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		and SE764B (OR EPPC External 3rd Party PoH Rental 2mbit Fibre) are	
<u>Description</u> This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring		one component. The Factors for Component to Service has been frozen	
This component attributes the costs within the Internal Transfer Charge between Global Services and Openreach for the Ethernet Monitoring	CO445	Ethernet Monitoring Platform	CO445
between Global Services and Openreach for the Ethernet Monitoring		<u>Description</u>	
Platform.			
Basis for Usage Factor Calculation		Basis for Usage Factor Calculation	

	Component Description	Super Component
	The usage factors are based on an analysis of the number of management link ports utilised.	Component
	<u>Data Source</u>	
	Inventory System PACs.	
CO447	Backhaul extension services fibre	CO447
	<u>Description</u>	Backhaul
	This component captures the costs associated with BES (Backhaul extension services).	Extension Services Fibre
	Basis for Usage Factor Calculation	
	The usage factor is derived from a combination of the usage of fibre for each service that uses this component and the relative cost of providing fibre by customer end in the different CISBO market areas.	
	The usage factor also takes into account the take-up of resilience options - higher bandwidth options have increased resilience requiring additional fibres e.g. 1,000 Mbps Access BT Only has a different usage factor to 10 Mbps Access BT Only.	
CO450	Wholesale Extension Services Fibre	CO450
	<u>Description</u>	Wholesale
	This Component attributes the depreciation and overheads associated with the fibre providing access from the BT Exchange to the Customer premises for Wholesale Extension Services (WES).	Extension Services Fibre
	This component also includes the cost of duct where the fibre resides.	
	Basis for Usage Factor Calculation	
	The usage factor is derived from a combination of the usage of fibre for each service that uses this component and the relative cost of providing fibre by customer end in the different CISBO market areas.	
	The usage factor also takes into account the take-up of resilience options - higher bandwidth options have increased resilience requiring additional fibres e.g. 1,000 Mbps Access BT Only has a different usage factor to 10 Mbps Access BT Only.	
CO457	Optical Ethernet Electronics Capital	CO457
	<u>Description</u>	Optical
	This component attributes the direct operating costs and balance sheet values associated with the dedicated equipment used for Optical Ethernet electronics rentals.	Ethernet Electronics Capital
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CO466	InterConnect Extension Circuits (IEC) 2Mbps per km	CO466
	<u>Description</u>	Interconnect
	Interconnect circuits provide the physical infrastructure to connect the exchanges (switches) of two CPs in order to allow traffic to pass between them.	Extension Circuits (IEC) 2Mbps per km
	Interconnect Extension Circuits (IECs) provides a CP with the ability to extend the reach of their network, by providing a 2Mbps circuit from an In-Span Interconnect (ISI) Point of Connection to a remote BT switch	

	Component Description	Super Component
	location via BT's network. IECs are only available in conjunction with In- Span Interconnect (ISI) circuits.	Component
	The cost of interconnect circuits is borne by BT and is used to connect BT's network to another operator. The circuit may be used by both BT and the operator and charges are apportioned according to ownership of traffic between the parties. The circuit is charged as an upfront connection and ongoing rental.	
	This component attributes the distance related costs and associated overheads of providing IECs.	
	Basis for Usage Factor Calculation	
	The usage factors to tandem and DLE services for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CO468	In Span Interconnect circuits (ISI) transmission	CO468
	<u>Description</u>	In Span
	Interconnect circuits provide the physical infrastructure to connect the exchanges (switches) of two CPs in order to allow traffic to pass between them.	Interconnect circuits ISI transmission
	In-Span Interconnect (ISI) provides a Communications Provider (CP) with the ability to offer telephony services to their customers that connect with BTR customers.	
	ISI is a lower cost alternative to Customer Sited Interconnect (CSI). It provides a 2Mbps connection from a BT switch. CPs install equipment at their premises and this interconnects at an agreed Point of Connection (PoC) in the public highway. CPs can then benefit from Call Origination and Call Termination on BT's network	
	This component attributes the transmission costs and associated overheads required to provide ISI services.	
	Basis for Usage Factor Calculation	
	This component factors to one tandem service using a usage factor of 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CO484	Ethernet main links	CO484
	<u>Description</u>	Ethernet main
	This component attributes all costs associated with Ethernet main links.	links
	Basis for Usage Factor Calculation	
	The usage factors for this component take into account the different CISBO markets. It represents the relative costs of providing fibre links between BT exchanges in the different markets. It is derived from a study of the fibre infrastructure in different parts of the network.	
	Access markets are given the same factors as Inter markets; i.e. Access – BT Only based on Inter – BT Only, Access – BT+1 based on Inter – BT+1, Access – Outside CLA based on Inter – BT+1, Access – CLA based on Inter – BT+2 or more and Residual based on lowest factor out of Inter markets.	
	The same factors can be applied across inter-exchange and access markets given that there are no fundamental differences in the use of main link between markets i.e. the only differentiating factor would	

	Component Description	Super Component
	whether the main link circuit connection is part of a larger access circuit, or a standalone inter-exchange service.	
CO485	Ethernet Electronics Current	CO485
	<u>Description</u>	Ethernet
	This component attributes the overheads associated with the rental costs of electronics used to provide Ethernet Access Direct (EAD) services, Wholesale Extension Services (WES), LAN Extension Services. (LES), Ethernet services, Backhaul Extension Services (BES), Wholesale and LAN extension services, and Optical Ethernet services.	Electronics
	Basis for Usage Factor Calculation	
	The usage factor for this component is based on the unit of measure of the different services to which it allocates.	
CO487	EAD Electronics Capital	CO487
	<u>Description</u>	EAD
	This component attributes the operating costs and balance sheet values associated with the dedicated equipment for EAD (Ethernet Access Direct) electronics rentals.	Electronics Capital
	Basis for Usage Factor Calculation	
	The usage factor for this component is based on the relative price of the electronics used to provide the service.	
CO488	Dark Fibre Specific Rental costs	
	<u>Description</u>	
	CO488 captures the expenditure specifically relating to providing Inter- exchange Dark Fibre Rental services. These costs relate to the labour and equipment costs of installing "patch panels" within an exchange for the access seekers to utilise.	
	Dark Fibre Specific costs have been agreed between Ofcom and Openreach, which have formed the foundation for the pricing of DFX products. Costs from this plant group are allocated to C0488 (Dark Fibre Specific Rental Costs)	
	Basis for Usage Factor Calculation	
	The usage factor for this component will be 1, where a journal has not been used.	
CO499	Dark Fibre Specific Connections costs	
	<u>Description</u>	
	CO499 captures the expenditure specifically relating to providing Interexchange Dark Fibre Connection services. These costs relate to the labour associated with the "birth certificate" process, which is provided by Openreach when handing the circuit over to the access seeker and will display the actual performance characteristics of the dark fibre circuit	
	Dark Fibre Specific costs have been agreed between Ofcom and Openreach, which have formed the foundation for the pricing of DFX products. Costs from this plant group are allocated to C0488 (Dark Fibre Specific Rental Costs).	
	Basis for Usage Factor Calculation	
	The usage factor for this component will be 1, where a journal has not been used.	

	Component Description	Super Component
CO668	IP Network management	CO668
	<u>Description</u>	IP Network
	IP network management relates to the set of communication tools which enables computers to 'talk' to each other over the Internet for 20CN services such as IPStream and Datastream.	Management
	This component attributes Internet Protocol (IP) network management costs. It includes all the costs associated with Operational Support Systems (OSS) – these are activities used to run the network and business. Typical activities that are part of OSS are taking a customer's order, configuring network components, logging and managing faults.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CO670	IP Network Fixed Access	CO670
	<u>Description</u>	IP Network
	This Component attributes the costs of the following types of equipment:	Fixed Access
	 BTnet Direct and Flex NTE (Network Terminal Equipment) Routers, which connect the customer to the BT Network BTnet Access Routers, which connect the MSIP (Multi Services Intranet Platform) and Synchronous Digital Hierarchy (SDH) access to the IP Network at Colossus PoPs (Point of Presences). 	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CO671	IP Network VPN	CO671
	<u>Description</u>	IP Network
	This component captures the costs associated with the Virtual Private Networks that support products such as IP Connect and IP Converge carrying Voice, Data & Video content. These sit within Class of Work IPNC.	VPN
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CO672	IP Network Broadband	CO672 IP
	<u>Description</u>	Network Broadband
	This Component attributes the cost of the following types of equipment:	
	 Remote Authentication Servers (RAS) (which connect Asymmetric Digital Subscriber Line (ADSL) users into IP cloud, for direct connection to the Internet Service Provider Home Gateways. Broadband Access Routers, which connect RAS into IP cloud. Broadband Service Provider Home Gateways. 	
	<u>Methodology</u>	
	The usage factors for this component are 1.	
CO675	IP VOIP platform	CO675
	<u>Description</u>	IP VOIP
	VoIP (Voice over Internet Protocol) is a method of transporting speech over the internet.	platform
	This Component captures the cost of Session Distribution Interworking Network (SDIN) Costs include provision, extension, rearrangement and	

	Component Description	Super Component
	recovery of IP Networks by the Broadband and Data division in BT Enterprise.	Join political
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CO676	Hosted Communications Services	CO676
	<u>Description</u>	Hosted
	VoIP is a method of transporting speech over the internet.	Communication s Services
	This Component captures the cost of the following types of equipment:	
	 Gigabit Routers - Gigabit Routers are high bandwidth switches, used for switching Internet traffic. Gateways and Access Routers are for transmitting voice over the IP Network. 	
	Costs include provision, extension, rearrangement and recovery of IP Networks by the Broadband and Data division in BT Enterprise.	
	Basis for Usage Factor Calculation	
	The usage factor for this component is 1.	
CO681	Broadband backhaul circuits excl. Virtual Paths	CO681
	<u>Description</u>	Broadband
	This component attributes the costs of SDH Broadband backhaul circuits. SDH Broadband backhaul circuits are dedicated circuits that connect the DSLAM to the ATM platform. The circuits are used to provide bandwidth and virtual path services to BT Retail and other service providers for 20CN services such as IPStream, Max, Max Premium and Home & Office.	backhaul circuits excl. Virtual Paths
	Basis for Usage Factor Calculation	
	This component is attributed to services based on original end-user volume factored by bandwidth. This factoring has been taken into account in the service volumes, so the usage factor is 1 (e.g. the service SM124 external IPStream Connect - Bandwidth had a volume of 407,533 average Mbps which is calculated from 479,144 end users factored by an average bandwidth usage of 0.85 Mbps).	
CO772	OR Systems & Development - Ethernet	CO772
	<u>Description</u>	OR Systems &
	This component attributes the development costs for Openreach products specific to Ethernet.	Development - Ethernet
	Basis for Usage Factor Calculation	
	The costs of this component are attributed based on the number of circuits ordered or rented during the year.	
	The usage factors are normally 1 except in these cases:	
	 WES and BES service volumes are measured as local ends so we use a usage factor of 0.5 to convert into circuits. Main Link service volumes are measured in km so the usage factor is based on the average circuit length. 	
CO911	National Operator Assistance	CO911

	Component Description	Super Component
	<u>Description</u>	National
	This component attributes the pay and non pay costs associated with National Operator Assistance calls.	Operator Assistance
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO912	International Operator Assistance	CO912
	<u>Description</u>	International
	This component attributes the pay and non pay costs associated with International Operator Assistance calls.	Operator Assistance
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO919	Emergency Operator Assistance 999	CO919
	<u>Description</u>	Emergency
	This component attributes the pay and non pay costs associated with Emergency Operator Assistance 999 calls.	Operator Assistance
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO941	National Operator Assistance Non Chargeable	CO941
	<u>Description</u>	National OA
	This component attributes the pay and non pay costs associated with National Operator Assistance Non Chargeable calls.	Non Chargeable
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO942	Emergency Operator Assistance 999 Non Chargeable	CO942
	<u>Description</u>	Emergency OA
	This component attributes the pay and non pay costs associated with Emergency Operator Assistance calls.	999 Non Chargeable
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CO989	Special Fault Investigation	CO989
CO303	Special i auti investigation	CO303

	Component Description	Super Component
	<u>Description</u>	Special Fault
	This component captures the costs of Special Fault Investigations (SFI).	Investigation
	A Local Loop Unbundling (LLU) SFI can be initiated by an LLU Communications Provider (CP) when a Metallic Path Facility (MPF) or Shared Metallic Path Facility (SMPF) tests OK on the Openreach line test system, but where there might be a problem with the CP's Asymmetric Digital Subscriber Line (ADSL) or Symmetric Digital Subscriber Line (SDSL) service.	
	The LLU SFI is a chargeable investigation product which attempts to identify and resolve DSL service affecting problems.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CP502	Openreach sales product management	CP502
	<u>Description</u>	Openreach
	This component contains costs for Openreach Sales Product Management.	sales product management
	Basis for Usage Factor Calculation	
	For non-sales and market activities such as product management, Usage Factors are calculated using a survey of staff (expressed as FTE) which relates people to activities. However this survey does not provide sufficient granularity to map the FTEs directly to services for Ethernet. To gain this granularity, the FTE volumes are split using product revenue and volumes data. Usage Factors are calculated using these weightings.	
	For sales and marketing activities costs are allocated based on revenue data.	
CR188	DSLAM Support	CR188
	<u>Description</u>	DSLAM
	Digital Subscriber Line Access Multiplexer (DSLAM) is network equipment located in telephone exchange that provides access for the broadband end user. It connects multiple customers' Digital Subscriber Lines (DSL) to a high speed internet backbone and allows customers to make faster connections to the internet.	Support
	This component attributes the overhead costs of DSLAMs.	
	Basis for Usage Factor Calculation	
	We have modelled the detailed costs of each individual DSLAM and have been able to attribute the modelled costs to specific services as we have information on the number of end-users connected at each site, by service, for each DSLAM.	
	We use this information to calculate the usage factors such that a proportion of this component's costs are allocated to each service.	
	This component is attributed in proportion to cost analysis for all of our DSLAMs. The Factors for Component to Service has been frozen using the 2017 P12 data.	
CR446	Public Payphone - Operations	CR446
	Description	

	Component Description	Super Component
	This component forms part of the BT Retail Public Payphone kiosks and	Public
	attributes the costs of the payphone access charge.	Payphone Operations
	Basis for Usage Factor Calculation	Operations
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CR470	Intra Building Circuit (IBC) rental	CO470
	<u>Description</u>	Intra Building
	Interconnect circuits provide the physical infrastructure to connect the exchanges (switches) of two Communication Providers in order to allow traffic to pass between them.	Circuit IBC rental
	This component attributes the costs associated with the provision and testing of Intra Building Circuits (IBC), which are part of the interconnect links.	
	IBCs are 2mb links required for customer sited and in span interconnect circuits, which allow other operators to connect to BTs network, primarily for PSTN traffic. These require the use of 2Mbps ports on local and trunk exchanges along with operator signalling links.	
	Basis for Usage Factor Calculation	
	The usage factors to tandem and DLE services for this component are 1.	
	The Factors for Component to Service has been frozen using the 2017 P12 data.	
CT134	Co-mingling power & vent	CT134
	<u>Description</u>	Co-mingling
	This component captures the costs for local loop unbundling (LLU) power and ventilation.	power & vent
	Basis for Usage Factor Calculation	
	The usage factors for this component are calculated using the proportional rental volumes of the chargeable items within the services Co-mingling Rentals and Other WLA.	
CW609	Ethernet Access Direct Fibre	CW609
	<u>Description</u>	Ethernet
	This Component attributes the depreciation and overheads for fibre providing access from BT Exchange to Customer premises for Ethernet Access Direct (EAD) and Optical Ethernet services.	Access Direct Fibre
	This component also includes the cost of duct that the fibre resides in.	
	Basis for Usage Factor Calculation	
	The usage factor is derived from a combination of the usage of fibre for each service that uses this component and the relative cost of providing fibre by customer end in the different CISBO markets.	
	The usage factor also takes into account the take-up of resilience options - higher bandwidth options have increased resilience requiring additional fibres e.g. 1,000 Mbps CISBO Rest of UK has a different usage factor to 10 Mbps Access BT Only.	
	Inter-Exchange doesn't receive Access Fibre costs. Residual Factor uses lowest factor Access rate.	

	Component Description	Super Component
CW900,	Revenue Receivables	CD900
CW901, CX902	<u>Description</u>	Revenue
	These components capture system generated figures for receivables for the RFS. These receivables are an approximation of the amounts owed to BT, both internal (i.e. for Openreach representing receivables that would be generated if trades between BT's Customer-Facing Units (CFUs) were undertaken to a third party and at arm's length) and external. They are based upon a five year moving average of Openreach's debtor days.	Receivables
	Any anomalous years within the five year moving average are excluded. For example, the calculation for 2013/14 showed debtor days well in excess of the preceding and subsequent years, and thus was excluded from relevant five year moving average calculations.	
	Basis for Usage Factor Calculation	
	The Usage Factors are system generated. The attribution of receivables is directly in proportion to the revenue of each revenue-generating service. CostPerform therefore uses the price of each service as the Usage Factor.	
CX992, CX993	Eol P&L Elimination and Non Eol P&L Elimination	CD901
CV332	<u>Description</u>	OPEX
	There are the EoI eliminations and the Non-EoI PnL Eliminations and we are using them to get our return back to the consolidated results. EoI eliminations are removing the EoI charges which were added to services and the component capturing this elimination is CX992.	Eliminations
	Return is presented on gross adjusted basis which means that the numbers include the external results as well as transfer charges between divisions. Non-EoI PnL eliminations are used to remove the transfer charges as on a consolidated level. The component capturing this elimination is CX993.	
CX997,	Notional Creditors	CD900
CX998	<u>Description</u>	Revenue
	This component captures system generated figures for notional creditors for WBA Market A in the RFS. These creditors are an approximation of the amounts owed to Openreach by BT Enterprise for Equivalence of Input (EOI) charges. They represent an approximation of the creditor balances which would exist if trades between BT's Customer-Facing Units (CFUs) were undertaken to a third party and at arm's length. They are based a five year moving average of Openreach's debtor days. Note that there is no component code as CostPerform automatically overlays the calculated figure to the services as required in the WBA market.	Receivables
	Note that any anomalous debtors days excluded from the Revenue Receivables methodology are also excluded from this Notional Creditors calculation. CX997 is related to EoI charge and CX998 is balance sheet related component.	
	Basis for Usage Factor Calculation	
	The Usage Factors are system generated. The attribution of notional creditors is directly in proportion to the costs incurred by BT Enterprise for each EOI service consumed as part of providing a wholesale service. CostPerform therefore uses the cost of each EOI service as the Usage Factor.	
_	OR Residual Elimination	CZ252B
CZ252B		

	Component Description	Super Component
	This component captures the variance between the calculated notional revenues associated with Other Communication Providers (OCPs), and the actual revenues received from OCPs, relating to Openreach activity.	OR Residual elimination
	It can also include some ad hoc adjustments and provisions that are not associated with the regulated market and not included within other components.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ252N	WH Residual elimination	CZ252N
	<u>Description</u>	WH Residual
	This component captures the variance between the calculated notional revenues associated with Other Communication Providers (OCPs), and the actual revenues received from OCPs, relating to BT Enterprise activity.	elimination
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	The Factors for Component to Service has been frozen using the 2018 P12 data.	
CZ600	BTW Residual	CZ600
	<u>Description</u>	BTW Residual
	This PG captures the costs of miscellaneous activities involved in the cost of running the network, but which do not form any part of regulated services.	
	Basis for Usage Factor Calculation	
	The usage factor for this component will be 1.	
CZ327	Duct Network Adjustments Above Internal	CZ300X
	<u>Description</u>	PIMR
	This component captures the costs for local loop unbundling (LLU) power and ventilation.	Downstream
	Basis for Usage Factor Calculation	
	The usage factors for this component are calculated using the proportional rental volumes of the chargeable items within the services Co-mingling Rentals and Other WLA.	
CZ328	Duct Network Adjustments Below Internal	CZ300Y
	<u>Description</u>	PIMR Costs
	This component captures the costs of internal (work we conduct for when building our own network) duct network adjustments that are below the financial limit of $\pm 4,750$ per km	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ329	Duct Network Adjustments Above External	CZ300X
	<u>Description</u>	PIMR Downstream

	Component Description	Super Component
	This component captures the costs of external (work we conduct on behalf of our communication providers) duct network adjustments that are above the financial limit of £4,750 per km	Component
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ330	Duct Network Adjustments Below External	CZ300Y
	<u>Description</u>	PIMR Costs
	This component captures the costs of external (work we conduct on behalf of our communication providers) duct network adjustments that are below the financial limit of £4,750 per km	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ331	Poles Network Adjustments Internal	CZ300Y
	<u>Description</u>	PIMR Costs
	This component captures the costs of internal (work we conduct for when building our own network) poles network adjustments.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ332	Poles Network Adjustments External	CZ300Y
	<u>Description</u>	PIMR Costs
	This component captures the costs of external (work we conduct on behalf of our communication providers) poles network adjustments.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ301	Spine Duct 1 Internal RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the RAV downstream cost of single bore duct.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ302	Spine Duct 2 Internal RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the RAV downstream cost of two bore duct.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ303	Spine Duct 3+ Internal RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the RAV downstream cost of duct bore of more than 2.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
	<u>'</u>	

	Component Description	Super Component
CZ304	Manholes Internal RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the RAV downstream cost of manholes.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ305	Joint Boxes Internal RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the RAV downstream cost of joint boxes.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ306	Lead ins Internal RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the RAV downstream cost of lead ins.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ307	Spine Duct 1 External RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component only captures the RAV external cost of single bore duct.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ308	Spine Duct 2 External RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component only captures the RAV external cost of two bore duct.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ309	Spine Duct 3+ External RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component only captures the RAV external cost of duct bore of more than 2.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ310	Manholes External RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component only captures the RAV external cost of manholes.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ311	Joint Boxes External RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	<u>l</u>	

	Component Description	Super Component
	This component only captures the RAV external cost of joint boxes.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ312	Lead ins External RAV	CZ300Y
	<u>Description</u>	PIMR Cost
	This component only captures the RAV external cost of lead ins.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ313	Spine Duct 1 Internal	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the downstream cost of single bore duct.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ314	Spine Duct 2 Internal	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the downstream cost of two bore duct.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ315	Spine Duct 3+ Internal	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the downstream cost of duct with more than 2 bore.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ316	Manholes Internal	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the downstream cost of manholes.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ317	Joint Boxes Internal	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the downstream cost of joint boxes.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ318	Lead ins Internal	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the downstream cost of lead ins.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	

	Component Description	Super Component
CZ325	Poles Internal	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the downstream cost of telegraph poles which are used as distribution points to end users.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ319	Spine Duct 1 External	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the external cost of single bore duct.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ320	Spine Duct 2 External	CZ300Y
	<u>Description</u>	PIMR Cost
	This component captures the external cost of two bore duct.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ321	Spine Duct 3+ External	CZ300Y PIMR
	<u>Description</u>	Cost
	This component captures the downstream cost of duct with more than 2 bore.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ322	Manholes External	CZ300Y PIMR
	<u>Description</u>	Cost
	This component captures the external cost of manholes.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ323	Joint Boxes External	CZ300Y PIMR
	<u>Description</u>	Cost
	This component captures the external cost of joint boxes.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ324	Lead ins External	CZ300Y PIMR
	<u>Description</u>	Cost
	This component captures the external cost of lead ins.	
	Basis for Usage Factor Calculation	
	The usage factors for this component are 1.	
CZ326	Poles External	CZ300Y PIMR
	<u>Description</u>	Cost

Component Description	Super Component
This component captures the external cost of telegraph poles which are used as distribution points to end users.	
Basis for Usage Factor Calculation	
The usage factors for this component are 1.	

11.4 Component to Service mappings including Usage Factors

The component to service mapping for all components listed in the above dictionary and the factors which are applied to these components is separately published as a separate annex (A9) on our website.

12 Physical Infrastructure Access Downstream Costs

PIA Downstream Costs

As part of the July RFR 2019 Ofcom required that duct and pole cost and MCE were included within a separate market however there are a range of markets outside of PIA which utilise duct and pole assets. To accurately record costs a recharge of FAC from the PIA market to the relevant downstream services is made with an additional amount of revenue for the same amount to ensure that the PIA market is not overstated.

PIA Downstream costs

Service	Description
SJ001B	Spine Duct Internal
SJ002B	Lead in Duct Internal
SJ003B	Manholes Internal
SJ004B	Joint Boxes Internal
SJ005B	Poles Internal
SJ006B	Spine Duct Internal RAV
SJ007B	Lead in Duct Internal RAV
SJ008B	Manholes Internal RAV
SJ009B	Joint Boxes Internal RAV

Description

These services are costs associated with the PIA markets, the cost of the part services are based solely on their equivalent services within the PIA market (SJ001-SJ009)

Methodology

Costs and MCE are allocated into two main areas within the PIA markets, either internal services or external services. The costs of the internal services (SJ001-SJ009) relate to the downstream markets. Although total costs and MCE is held within the PIA services the FAC is recharged from these services to their respective part services (SJ001b-SJ009b). The FAC is then apportioned from these part services to the downstream services by the following steps.

 To identify how costs should be allocated downstream a pre-PIA structure of plant groups is used. Each of these is assigned a GRC, derived through reviewing the fixed asset register and grouping the assets into access copper, fibre and core. This indicates how duct and pole costs are used downstream exclusive of PIA. The FAC within a part service will then be split in proportion to the GRC.

$$x = \frac{a}{\sum a}$$

$$a = GRC of plant group$$

• The next step will be to assign each plant group a proportion of duct km or pole volume based off the information provided by Openreach on internal services. These internal volumes will be apportioned in line with the duct GRC proportion of the plant group. There are several volume values, each one is used to allocate costs relating to a different part of the service (such as spine duct and lead in).

$$z = y \times x$$

 $y = duct \ KM \ or \ pole \ volume$

• Factored volumes will be calculated by multiplying the service volumes by the usage factor for the services from a plant group (via component), a total of the factored volumes for a plant group will be calculated. The internal volume by GRC proportion will be divided by factored volume sum to calculate a per unit value and then scaled up by the volume of a service.

$$c = \frac{z}{d}$$

$$d = Factored volumes$$

$$f = c \times e$$

$$e = Volumes$$

• The scaled up service amounts are totalled and a proportion is calculated for each individual service, FAC is then apportioned in line with these proportions.

$$g = \frac{f}{\sum f} \times h$$
$$h = Service FAC$$

Data Sources

The total EOI charge for this service is sourced from cost perform, Duct and pole internal volumes provided by Openreach and factors and base allocation from existing models.

Excessive Construction Charges (ECCs) related to PIA Duct

Given that Duct is funded by ECCs, the impacts of the ECC Duct decapitalisation is accounted for within the PIA market.

13 Equivalence of input services

WBA Eol

As a result of the 2018 Ofcom WBA Market Review, BT is required to report separately on certain Openreach charges for the WBA Markets.

These Openreach charges are required to be reported on Equivalence of Input (EOI) basis.

The approach employed to generate EOI charges is to identify the Openreach services used as an input for the WBA services. Volumes of these services used for WBA are established. The most appropriate market volume driver available is identified based on either BT Openreach or BT Enterprise data. Weighted average EOI prices are applied to these volumes to get the total charges. The charges are allocated to services within each of the geographic Markets with the best available volume driver. The charges are loaded to EOI specific services in the regulatory accounting system, which are then mapped to individual published services.

EBD and ONBS Connections and Rentals

Service	Description
SS119B	EBD ONBS Rentals - Internal - Access - BT Only
SS121B	EBD ONBS >1Gbps Rentals - Internal - Access - BT Only
SS143B	Ethernet Main Link Rentals - Internal - Access - BT Only
SS149B	Other Ethernet main links >1Gbps - Internal - Access - BT Only
SS154B	EBD ONBS Connection - Internal - Access - BT Only
SS156B	EBD ONBS > 1Gbps Connections - Internal - Access - BT Only
SS219B	EBD ONBS Rentals - Internal - Access - BT+1
SS221B	EBD ONBS >1Gbps Rentals - Internal - Access - BT+1
SS243B	Ethernet Main Link Rentals - Internal - Access - BT+1
SS249B	Other Ethernet main links >1Gbps - Internal - Access - BT+1
SS254B	EBD ONBS Connection - Internal - Access - BT+1
SS256B	EBD ONBS > 1Gbps Connections - Internal - Access - BT+1
SS319B	EBD ONBS Rentals - Internal - Access - Outside CLA
SS321B	EBD ONBS >1Gbps Rentals - Internal - Access - Outside CLA
SS343B	Ethernet Main Link Rentals - Internal - Access - Outside CLA
SS349B	Other Ethernet main links >1Gbps - Internal - Access - Outside CLA
SS354B	EBD ONBS Connection - Internal - Access - Outside CLA
SS356B	EBD ONBS > 1Gbps Connections - Internal - Access - Outside CLA
SS419B	EBD ONBS Rentals - Internal - Access - CLA
SS421B	EBD ONBS >1Gbps Rentals - Internal - Access - CLA
SS443B	Ethernet Main Link Rentals - Internal - Access - CLA
SS449B	Other Ethernet main links >1Gbps - Internal - Access - CLA
SS454B	EBD ONBS Connection - Internal - Access - CLA
SS456B	EBD ONBS > 1Gbps Connections - Internal - Access - CLA
SS619B	EBD ONBS Rentals - Internal - Inter - BT Only
SS621B	EBD ONBS >1Gbps Rentals - Internal - Inter - BT Only
SS643B	Ethernet Main Link Rentals - Internal - Inter - BT Only
SS649B	Other Ethernet main links >1Gbps - Internal - Inter - BT Only
SS654B	EBD ONBS Connection - Internal - Inter - BT Only
SS656B	EBD ONBS > 1Gbps Connections - Internal - Inter - BT Only
SS719B	EBD ONBS Rentals - Internal - Inter - BT+1
SS721B	EBD ONBS >1Gbps Rentals - Internal - Inter - BT+1
SS743B	Ethernet Main Link Rentals - Internal - Inter - BT+1
SS749B	Other Ethernet main links >1Gbps - Internal - Inter - BT+1
SS754B	EBD ONBS Connection - Internal - Inter - BT+1
SS756B	EBD ONBS > 1Gbps Connections - Internal - Inter - BT+1
SS819B	EBD ONBS Rentals - Internal - Inter - BT+2 or more
SS821B	EBD ONBS >1Gbps Rentals - Internal - Inter - BT+2 or more
SS843B	Ethernet Main Link Rentals - Internal - Inter - BT+2 or more
SS849B	Other Ethernet main links >1Gbps - Internal - Inter - BT+2 or more
SS854B	EBD ONBS Connection - Internal - Inter - BT+2 or more
SS856B	EBD ONBS > 1Gbps Connections - Internal - Inter - BT+2 or more

Description

The above part services hold the EOI rental and connection charges for EBD and ONBS:

- Ethernet Backhaul Direct (EBD) is an efficient, cost effective way of delivering large volumes of data, quickly and securely. It delivers permanently connected, uncontended bandwidth from an Access Serving Node (ASN) to an Openreach Handover Point (OHP).
- Openreach Network Backhaul Service (ONBS) provides connectivity between a Communications
 Providers equipment installed within Co-location, Netlocate or BT Locate at a BT MSAN Site, and their
 equipment installed within Co-location, Netlocate or BT Locate at either the nearest BT MSAN Site, BT
 Metro Node Site or another BT MSAN Site or Metro Node Site which is within a distance of 15 radial
 kilometres of the first BT MSAN/Metro Site.

Methodology

These EOI charges are apportioned on the basis of bandwidth for the 21CN services that use EBDs. The relative bandwidth volumes of copper and fibre broadband, TV Connect (TVC), Harmonised Ethernet, Managed Ethernet Access services (MEAs), and dedicated Core and Metro 10 Gbit/s links are used to create a base that apportions the charges to the following services:

Service	Description
SN113	Market A - OR Int WBC 21CN Backhaul
SN114	Market A - OR Ext WBC 21CN Backhaul
SN313	Market B - OR Int WBC 21CN Backhaul
SN314	Market B - OR Ext WBC 21CN Backhaul
SM413	ORTVC
SM416	OR HE/MEAS
SN161	Market A - SFBB OR Fibre BW Int
SN162	Market A - SFBB OR Fibre BW Ext
SN361	Market B - SFBB OR Fibre BW Int
SN362	Market B - SFBB OR Fibre BW Ext

Data Sources

The total EOI charge is sourced using Openreach commercial volumes from COSMOSS and EST and Price List prices.

The bandwidth volumes are sourced from: WCR for broadband; GVF for TV Connect; GVF, PACs, MIS, And Enterprise Information Oracle Platform (EIP) for Harmonised Ethernet and MEAs; and Discoverer for Core and Metro 10 Gbit/s links.

SMPF Connections

SL138B SMPF New Provides

Description

The above part services hold the EOI charges for Shared Metallic Path Facility (SMPF) new provides. The SMPF service allows CPs to provide broadband services over the BT copper network. It enables customers to share a line with another Communications Provider providing a voice service to the same customer.

Methodology

These EOI charges are apportioned on the basis of connections for the copper services that use SMPF. The number of connections in the year to IPStream and WBC split by internal and external connections and by geographic market are used to create a base that apportions the charges to the following services:

Service	Description
SM101	Market A - OR Int IPS Connections
SM102	Market A - OR Ext IPS Connections
SN133	Market A - OR Int WBC Connections
SN134	Market A - OR Ext WBC Connections
SM301	Market B - OR Int IPS Connections
SM302	Market B - OR Ext IPS Connections
SN333	Market B - OR Int WBC Connections
SN334	Market B - OR Ext WBC Connections
SM450	WBA end user access - Conns OR/WS rec service

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The connection volumes (split by service, market and internal/external) are sourced from WCR.

SMPF Rentals

Service	Description
SL158B	SMPF Rentals

Description

The above part services hold the ongoing EOI rental charges for SMPF services. This service allows customers to provide broadband services over the BT copper network. It enables CPs to share a line with another Communications Provider providing a voice service to the same customer.

Methodology

These EOI charges are apportioned on the basis of end user rentals for the copper services that use SMPF. The end user rental volumes for IPStream and WBC split by internal and external rentals and by geographic market are used to create a base that apportions the charges to the following services:

Service	Description
SM103	Market A - OR Int IPS Max and Max Premium Rentals
SM104	Market A - OR Ext IPS Max and Max Premium Rentals
SM107	Market A - OR Int WBC end user access Rentals
SM108	Market A - OR Ext WBC end user access Rentals
SN129	Market A - OR Int IPS Home and Office Rentals
SN130	Market A - OR Ext IPS Home and Office Rentals
SM303	Market B - OR Int IPS Max and Max Premium Rentals
SM304	Market B - OR Ext IPS Max and Max Premium Rentals
SM307	Market B - OR Int WBC end user access Rentals
SM308	Market B - OR Ext WBC end user access Rentals
SN329	Market B - OR Int IPS Home and Office Rentals
SN330	Market B - OR Ext IPS Home and Office Rentals

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance. The end user rental volumes (split by service, market and internal/external) are sourced from WCR.

Migrations

Service	Description
SL139B	SMPF Single Migrations
SL199B	SMPF Bulk Migrations

<u>Description</u>

The above part services hold the EOI charges where an SMPF service is migrated between two customers. SMPF service allows customers to provide broadband services over the BT copper network. It enables customers to share a line with another Communications Provider providing a voice service to the same customer.

Methodology

The volume of single migrations and multiple migrations are added together to create a base. The EOI charges are then apportioned in total to the migration services based on the geographical location of the migration and an internal/external split, with the charge apportioned to the following services:

Service	Description
SM175	Market A - OR Int IPStream Migrations
SM176	Market A - OR Ext IPStream Migrations
SM375	Market B - OR Int IPStream Migrations
SM376	Market B - OR Ext IPStream Migrations
SN145	Market A – OR Int WBC Migrations
SN146	Market A – OR Ext WBC Migrations
SN345	Market B – OR Int WBC Migrations
SN346	Market B – OR Ext WBC Migrations

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The single and multiple migration volumes (split by service, market and internal/external) are sourced from WCR.

Ceases

Service	Description
SL201B	MPF Hard Ceases
SL202B	SMPF Hard Ceases

Description

The above part services hold the EOI charges for:

- The cessation of MPF lines MPF services enable customers offer both voice and broadband services. It provides a two-wire metallic transmission path between the Network Terminating Equipment at a customer's premises and a main distribution or jumper frame at the exchange.
- The cessation of SMPF lines SMPF services allow CPs to provide broadband services over the BT copper network. It enables CPs to share a line with another Communications Provider providing a voice service to the same customer.

Methodology

The volume of ceases in Market A and Market B, split by internal and external, are used as a base to apportion all EOI cease charges to the following services:

Service	Description
SM109	Market A - OR Int IPS end user access ceases
SM110	Market A - OR Ext IPS end user access ceases
SM309	Market B - OR Int IPS end user access ceases
SM310	Market B - OR Ext IPS end user access ceases
SN137	Market A - OR Int WBA end user access ceases
SN138	Market A - OR Ext WBA end user access ceases
SN337	Market B - OR Int WBA end user access ceases
SN338	Market B - OR Ext WBA end user access ceases

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The cease volumes (split by service, market and internal/external) are sourced from WCR.

Other Tie Pair Modifications

Service	Description
SL236B	SMPF Enhanced Care - Internal
SL242B	NGA Enhanced Care - Internal

Description

The above part services hold the EOI charges for SMPF and NGA Enhanced Care. This service allows customers a variety of service management levels above the standard offering.

<u>Methodology</u>

These EOI charges are apportioned on the basis of end user rentals for the WBC copper services that use SMPF. The end user rental volumes for WBC split by internal and external rentals and by geographic market are used to create a base that apportions the charges to the following services:

Service	Description
SM191	Market A - OR Int WBA SMPF enhanced care
SM192	Market A - OR Ext WBA SMPF enhanced care
SM391	Market B - OR Int WBA SMPF enhanced care
SM392	Market B - OR Ext WBA SMPF enhanced care

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The end user rental volumes (split by service, market and internal/external) are sourced from WCR.

Tie Cables

Service	Description
SL128B	Tie Cables
SL206B	Other Tie-cables and Comingling

Description

The above part services hold the EOI charges for SMPF and MPF tie cables. Tie Cables connect customers' equipment within a BT exchange building.

Methodology

The input data is firstly split out between 20CN and 21CN tie cables so that the 21CN tie cables are only allocated to WBC services whereas the 20CN services are allocated to IPStream.

Both the 20CN and 21CN tie cable EOI charges are apportioned on the basis of end user rentals, so the 21CN tie cables are apportioned between market and internal/external using WBC rental information and 20CN are apportioned using IPStream rentals.

The 21CN charges are apportioned to the following services:

Service	Description
SM185	Market A - OR Int WBC 21CN Tie cables
SM186	Market A - OR Ext WBC 21CN Tie cables
SM385	Market B - OR Int WBC 21CN Tie cables
SM386	Market B - OR Ext WBC 21CN Tie cables

The 20CN charges are apportioned to the following services:

Service	Description
SM187	Market A - OR Int IPStream Connect 20CN Tie cables
SM188	Market A - OR Ext IPStream Connect 20CN Tie cables
SM387	Market B - OR Int IPStream Connect 20CN Tie cables
SM388	Market B - OR Ext IPStream Connect 20CN Tie cables

Data Sources

The total EOI charge and the split between 20C and 21C for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The end user rental volumes (split by service, market and internal/external) are sourced from WCR.

Enhanced Care

Service	Description
SL244B	NGA Visit Assure EOI - Internal

Description

The above part service holds the EOI charges for the NGA Visit Assure service. NGA Visit Assure provides higher quality of service on fault repair for NGA products.

<u>Methodology</u>

These EOI charges are apportioned on the basis of end user rentals for the fibre SFBB services. The end user rental volumes split by internal and external rentals and by geographic market are added together to create a base that apportions the charges to the following services:

Service	Description
SN159	SFBB OR Fibre EU Market A Int
SN160	SFBB OR Fibre EU Market A Ext
SN359	SFBB OR Fibre EU Market B Int
SN360	SFBB OR Fibre EU Market B Ext

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The end user rental volumes (split by service, market and internal/external) are sourced from WCR.

SMPF and NGA Expedite

Service	Description
SL228B	SMPF Expedites EOI – Internal
SL230B	NGA Expedites EOI - Internal

Description

The above part services hold the EOI charges for the SMPF and NGA Expedite service, which provides CPs with faster connection times.

Methodology

These EOI charges are apportioned on the basis of connections for the services that use SMPF or NGA. The connection volumes for IPStream and WBC (copper and fibre) split by internal and external connections and by geographic market are added together to create a base that apportions the charges to the following services:

Service	Description
SM197	Market A - OR Int WBA SMPF Expedite
SM198	Market A - OR Ext WBA SMPF Expedite
SM397	Market B - OR Int WBA SMPF Expedite
SM398	Market B - OR Ext WBA SMPF Expedite

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The connection volumes (split by service, market and internal/external) are sourced from WCR.

Broadband Boost

Service	Description
SL246B	Copper WBA Broadband Boost
SL248B	NGA WBA Broadband Boost

Description

The above part services hold the EOI charges for the Broadband Boost service. This offers a cost-effective way to try to solve issues that CP customers have with their broadband speed and reliability. A range of activities can be carried out by BT engineers including; work relating to CPs customer's own wiring, equipment CP provided them with, and work on the Openreach access network (back to the local exchange).

Methodology

These EOI charges are apportioned on the basis of broadband boost volumes. The number of copper boost volumes is split by Market A and Market B based on the total market split of WBC and IPStream connections. Fibre boosts are apportioned to SN403, and any further residual boost volumes charged for by Openreach are apportioned to a residual reconciliation service (SM459). The following services are those that are apportioned the charges:

Service	Description
SN103	Market A - OR Int Broadband Boost
SN303	Market B - OR Int Broadband Boost
SN403	Residual - OR Int Broadband Boost
SM459	WBA Broadband Boost OR/WS rec service

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The broadband boost volumes are sourced from Openreach Analytics from the Reporting, Planning and Analysis team.

The connections based split by market for copper boosts is sourced from WCR.

Re-grades

Service	Description
SL178B	Other LLU Ancillaries Basket

Description

The above part services hold the EOI charges for several ancillary services related to SMPF and MPF:

- SMPF and MPF Tie Pair Modifications (3 working day lead time re-terminations and Multiple reterminations).
- Cancellations of SMPF and MPF orders for Provide, Simultaneous provide, migration, modification or amend.
- SMPF and MPF amend orders.
- SMPF Flexi Cease Fault Investigation Charges.
- SMPF and MPF Standard Line Test.

Methodology

The ARC system provides the volume and price data to enable this EOI charge to be split between Regrades and Migrations charges. These distinguishable EOI charges are then apportioned in total to the relevant volumes for each charge: migration services using migration volumes and regrade services using regrade volumes. The split to WBA service is based on the geographical location of the migration/regrade and an internal/external split, with the charge apportioned to the following services:

Service	Description
SM161	Market A - Int end user access OR IPStream regrades
SM162	Market A - Ext end user access OR IPStream regrades
SM361	Market B - Int end user access OR IPStream regrades
SM362	Market B - Ext end user access OR IPStream regrades
SM175	Market A - OR Int IPStream Migrations
SM176	Market A - OR Ext IPStream Migrations
SM375	Market B - OR Int IPStream Migrations
SM376	Market B - OR Ext IPStream Migrations
SN145	Market A – OR Int WBC Migrations
SN146	Market A – OR Ext WBC Migrations
SN345	Market B – OR Int WBC Migrations
SN346	Market B – OR Ext WBC Migrations
SN127	Mkt A OR Int IPS ADSL Cancellation
SN327	Mkt B OR Int IPS ADSL Cancellation
SN328	Mkt B OR Ent IPS ADSL Cancellation

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The single and multiple migration volumes (split by service, market and internal/external) are sourced from WCR.

SFIs

Service	Description
SO481B	Special Faults Investigations (SFIs)

Description

The above part service holds the EOI charge for a range of Special Fault Investigation 'module' services. These services fix certain faults that are not covered by the standard rental service. The module types are:

- Base Module
- Network Module
- Frame Module
- Internal Wiring Module
- Internal Equipment Module
- Frame Direct Module

Methodology

The SFI based EOI charge is split between non chargeable SFIs (which are apportioned to rental services) and chargeable SFIs (which are apportioned to individual SFI services). The split between non chargeable and chargeable SFI volumes is sourced from WCR with a market and internal/external split. The chargeable

apportionment is then shared over the following services based on the WCR split by market and internal/external for chargeable SFIs:

Service	Description
SM165	Market A - Int SFI - OR
SM166	Market A - Ext SFI - OR
SM365	Market B - Int SFI - OR
SM366	Market B - Ext SFI - O

The non-chargeable apportionment is then shared over the following services based on the WCR split by market and internal/external for end user rentals:

Service	Description
SM103	Market A - OR Int IPS Max and Max Premium Rentals
SM104	Market A - OR Ext IPS Max and Max Premium Rentals
SM107	Market A - OR Int WBC end user access Rentals
SM108	Market A - OR Ext WBC end user access Rentals
SN129	Market A - OR Int IPS Home and Office Rentals
SN130	Market A - OR Ext IPS Home and Office Rentals
SM303	Market B - OR Int IPS Max and Max Premium Rentals
SM304	Market B - OR Ext IPS Max and Max Premium Rentals
SM307	Market B - OR Int WBC end user access Rentals
SM308	Market B - OR Ext WBC end user access Rentals
SN329	Market B - OR Int IPS Home and Office Rentals
SN330	Market B - OR Ext IPS Home and Office Rentals

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The chargeable SFI volumes and the end user rental volumes (split by service, market and internal/external) are sourced from WCR.

EAD

Service	Description
SO646B	21CN Backhaul EAD

Description

The above part service holds the EOI charges for Ethernet Access Direct (EAD).

Ethernet Access Direct (EAD) provides point-to-point data connectivity between sites. It can be used to build and extend customer networks, develop new infrastructure, and meet low-capacity backhaul requirements (i.e. up to 1Gb, which is the starting bandwidth for Ethernet Backhaul Direct). EAD supports a range of requirements including cloud computing, simultaneous online pupil access in classrooms and storage area network connectivity.

Methodology

These EOI charges are apportioned on the basis of bandwidth for the 21CN services that use EAD. TV Connect (TVC) and fibre-access broadband volumes are factored to reflect their usage of only Tier 1 EADs.

The relative bandwidth volumes of copper broadband, fibre broadband and TVC are used to create a base that apportions the charges to the following services:

Service	Description
SN113	Market A - OR Int WBC 21CN Backhaul
SN114	Market A - OR Ext WBC 21CN Backhaul
SN161	SFBB OR Fibre BW Mkt A Int
SN162	SFBB OR Fibre BW Mkt A Ext
SN313	Market B OR Int WBC EBD
SN314	Market B OR Ext WBC EBD
SN361	SFBB OR Fibre BW Mkt B Int
SN362	SFBB OR Fibre BW Mkt B Ext
SM413	OR TVC

A usage factor is applied to Fibre and TVC services to apportion only Tier 1 Links in the EAD backhaul network.

Data Sources

The total EOI charge is sourced from internal trading data. The bandwidth volumes are sourced from: WCR for broadband; and GVF for TV Connect.

Time Related Charges (TRCs)

Service	Description
SK990B	Time Related Charges

Description

The above part services hold the EOI charges for Time Related Charge work relating to SMPF and MPF lines. Time Related Charges (TRCs) are raised to recover the cost incurred when BT Openreach engineers perform work that is not covered under the terms of the Openreach service. For example, TRCs apply where there are no standard prices for the work required, if it falls outside normal hours, if it is needed earlier than standard timescales or is at a CP's site and not covered under our terms.

Methodology

These EOI charges are apportioned on the basis of connections for the copper services that use SMPF. The number of connections in the year to IPStream and WBC split by internal and external connections and by geographic market are used to create a base that apportions the charges to the following services:

Service	Description
SM103	Market A - OR Int IPS Max and Max Premium Rentals
SM104	Market A - OR Ext IPS Max and Max Premium Rentals
SM107	Market A - OR Int WBC end user access Rentals
SM108	Market A - OR Ext WBC end user access Rentals
SN129	Market A - OR Int IPS Home and Office Rentals
SN130	Market A - OR Ext IPS Home and Office Rentals
SM303	Market B - OR Int IPS Max and Max Premium Rentals
SM304	Market B - OR Ext IPS Max and Max Premium Rentals
SM307	Market B - OR Int WBC end user access Rentals
SM308	Market B - OR Ext WBC end user access Rentals
SN329	Market B - OR Int IPS Home and Office Rentals
SN330	Market B - OR Ext IPS Home and Office Rentals

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The connection volumes (split by service, market and internal/external) are sourced from WCR.

Cancellation and amendment of MPF Orders

Service	Description
SL172B	Cancellation of MPF orders
SL173B	Amend orders Allowable change to MPF order

Description

This service includes the cancellation of the new provision of an MPF new provide and the change made to an existing of an MPF new provide.

<u>Methodology</u>

The ARC system provides the volume and price data to enable this EOI charge to be split between Regrades and Migrations charges. These distinguishable EOI charges are then apportioned in total to the relevant volumes for each charge: migration services using migration volumes and regrade services using regrade volumes. The split to WBA service is based on the geographical location of the migration/regrade and an internal/external split, with the charge apportioned to the following services:

Service	Description
SM161	Mkt A - OR Int end user access IPStream regrades
SM162	Mkt A - OR Ext end user access IPStream regrades
SM175	Mkt A - OR Int end user access CP Mig
SM176	Mkt A - OR Ext end user access CP Mig
SM361	Mkt B - OR Int end user access IPS regrades
SM362	Mkt B - OR Ext end user access IPS regrades
SM375	Mkt B - OR Int end user access CP Mig
SM376	Mkt B - OR Ext end user access CP Mig
SN127	Mkt A - OR Int IPS ADSL Cancellation
SN128	Mkt A - OR Ext IPS ADSL Cancellation
SN145	Mkt A - OR Int WBC Migrations
SN146	Mkt A - OR Ext WBC Migrations
SN327	Mkt B - OR Int IPS ADSL Cancellation
SN328	Mkt B - OR Ext IPS ADSL Cancellation

SN345	Mkt B - OR Int WBC Migrations
SN346	Mkt B - OR Ext WBC Migrations

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The connection volumes (split by service, market and internal/external) are sourced from WCR.

MPF Standard Line Test

Service	Description
SL174B	MPF Standard Line Test

Description

Test on the Metal Path Facility (MPF) line without special provisions on Openreach lines (not the Non Served Premises (NSP), ships in Dock and Short Duration lines).

Methodology

The ARC system provides the volume and price data to enable this EOI charge to be split between Regrades and Migrations charges. These distinguishable EOI charges are then apportioned in total to the relevant volumes for each charge: migration services using migration volumes and regrade services using regrade volumes.

The split to WBA service is based on the geographical location of the migration/regrade and an internal/external split, with the charge apportioned to the following services:

Service	Description
SM161	Mkt A - OR Int end user access IPStream regrades
SM162	Mkt A - OR Ext end user access IPStream regrades
SM175	Mkt A - OR Int end user access CP Mig
SM176	Mkt A - OR Ext end user access CP Mig
SM361	Mkt B - OR Int end user access IPS regrades
SM362	Mkt B - OR Ext end user access IPS regrades
SM375	Mkt B - OR Int end user access CP Mig
SM376	Mkt B - OR Ext end user access CP Mig
SN127	Mkt A - OR Int IPS ADSL Cancellation
SN145	Mkt A - OR Int WBC Migrations
SN146	Mkt A - OR Ext WBC Migrations
SN327	Mkt B - OR Int IPS ADSL Cancellation
SN328	Mkt B - OR Ext IPS ADSL Cancellation
SN345	Mkt B - OR Int WBC Migrations
SN346	Mkt B - OR Ext WBC Migrations

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

The connection volumes (split by service, market and internal/external) are sourced from WCR.

GEA Cablelink Connections

Service	Description
SL321B	GEA Cablelink 1 Gbit/s Connections
SL322B	GEA Cablelink 10 Gbit/s Connections

Description

Generic Ethernet Access (GEA) Cablelink enables a connection from servers or backhaul circuits to the Next Generation Access Optical Line Termination (OLT) point in that exchange.

Methodology

SL321B and SL322B are allocated directly to SM412 (OR WBA Other Residual).

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

GEA 40/10 Bandwidth Change

Service	Description
SL323B	GEA 40/10 Bandwidth Change

Description

The above part service relates to changes in the amount of data that can be transmitted to a 40/10 rental.

Methodoloay

SL323B is allocated directly to SM412 (OR WBA Other Residual).

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance.

GEA 40/10 Rentals

Service	Description
SL301B	GEA 40/10 FTTC Rentals
SL304B	GEA 40/10 Other Rentals
SL300B	GEA FTTC Rentals (all other speeds except 40/10)
SL305B	GEA Other Rentals (all other speeds except 40/10)

Description

Rental of the Generic Ethernet Access cable link. This includes rental of FTTC & non FTTC with 40/10 speed as well as other services with speeds that are not at the regulated 40/10 speed.

Methodology

These EOI charges are apportioned on the basis of end user rentals for the fibre SFBB services. The end user rental volumes split by internal and external rentals and by geographic market are added together to create a base that apportions the charges to the following services:

Service	Description
SN159	SFBB OR Fibre EU Market A Int
SN160	SFBB OR Fibre EU Market A Ext
SN359	SFBB OR Fibre EU Market B Int
SN360	SFBB OR Fibre EU Market B Ext

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance. The end user rental volumes (split by service, market and internal/external) are sourced from WCR.

GEA Connection

Service	Description
SL303B	GEA 40/10 FTTC PCP Only Install and Start of Stopped Line
SL307B	GEA 40/10 FTTP Other Connections
SL340B	GEA 40/10 FTTC Start of Stopped Line Connections
SL344B	GEA FTTP 40/10 Connections Voice and Data

Description

For the GEA connection with 40/10 speed, the PCP Only is a connection variant where the engineer will only do the jumpering activity at the local street cabinet and then close the job, leaving the customer to complete the installation in the premises. The start of stopped service is quick requiring an existing line plant which is simply reactivated.

Service for Generic Ethernet Access over Fibre to the Premises (GEA-FTTP) with 40/10 connection.

<u>Methodology</u>

The other GEA EOI charges are all apportioned to the following WBC Fibre access services for Rentals, Connections and Migrations based on relevant volumes:

Service	Description
SN157	WBC OR Fibre Connections Mkt A Int
SN158	WBC OR Fibre Connections Mkt A Ext
SN357	WBC OR Fibre Connections Mkt B Int
SN358	WBC OR Fibre Connections Mkt B Ext

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance. The end user rental volumes (split by service, market and internal/external) are sourced from WCR.

GEA CP to CP Migration costs

Service	Description
SL955B	GEA CP to CP Migration

Description

The above part services holds the EOI charge for the Generic Ethernet Access CP to CP migration costs.

Methodology

The EOI charges are all apportioned to the following services for Migrations based on relevant volumes:

Service	Description
SN145	Mkt A OR Int WBC Migrations
SN146	Mkt A OR Ext WBC Migrations
SN345	Mkt B OR Int WBC Migrations
SN346	Mkt B OR Ext WBC Migrations

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance. The end user rental volumes (split by service, market and internal/external) are sourced from WCR.

GEA CRD Amend order notes/cancellation Care level

Service	Description
SL308B	GEA CRD Amend order notes/cancellation Care level

Description

This is related to the amendment of the Customer Required Dates (CRD). This an agreed date when all planned work will be completed and service provided.

Methodology

SL308B is allocated directly to SM412 (OR WBA Other Residual).

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance. The end user rental volumes (split by service, market and internal/external) are sourced from WCR.

GEA Other

Service	Description
SL320B	GEA Other
SL302B	GEA FTTC connections
SL306B	GEA FTTP connections
SL333B	G Fast Connections
SL336B	GEA 40/10 (FTTC) Connections
SL337B	GEA Other (FTTC) PCP Only Install Connections
SL341B	GEA Other (FTTC) Start of a Stopped Line Connections

Description

These services are costs associated with the provision of GEA.

Methodology

All the part services above are allocated directly to SM412 (OR WBA Other Residual).

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance

VLAN moves

Service	Description
SL324B	VLAN moves applied to GEA Cablelink Modify

Description

VLAN (Virtual Local Area Network) moves functionality will allow CP's consuming FTTC/FTTP/FVA to raise a Modify order to move the customer's CVLAN to an SVLAN if they weren't already allocated to an SVLAN

or between SVLANs if they were in an existing SVLAN. This may be carried out as long as the CVLAN is being moved within or between GEA Cablelinks on the same Layer 2 Switch. This allows the GEA Cablelink to be configured to suit how the network is managed.

<u>Methodology</u>

SL324B is allocated directly to SM412 (OR WBA Other Residual).

Data Sources

The total EOI charge for this service is sourced from the Actual Reporting Cube (ARC) reporting system managed by Openreach Finance

ANNEXES

Annex 1 Sectors

1.1 Sectors introduction

This section provides a description of key sectors involved in the cost allocation process. A sector:

- Consists of two alphanumeric characters
- Is a group of similar or like F8 Codes used for regulatory reporting purposes

A sector can be defined as the:

- Types of service provided by BT (revenues);
- Main functional activities performed by BT (Operating Costs);
- Main fixed assets underpinning BT activities; or
- Other assets, liabilities and provisions incurred by BT in support of its services and activities.

As described in Section 2 (Business and System Overview) sectors are used as a way of grouping one or many F8 codes into similar functional categories to make regulatory reporting more manageable. A list of all sectors identified in the RFS is included below.

1.2 Operating cost sectors

This section describes the operating cost sectors relating to activities that we provide to our customers.

Provision/Maintenance

Provision/Maintenance consists of the following sectors. The most material cost relates to D-side copper which is apportioned on the basis of the number of lines.

CostPerform sector	Description	Includes:
B1	Provision and Installation	Installation activities such as the physical installation of network equipment, cable and/or customer premises equipment to provide network connectivity and other services to customers.
		Provision activities such as work to activate and enable the service to a customer. This may involve software configuration to activate or de-activate particular services, using the underlying physical equipment and network provided through installation activities.
B2	Maintenance	Costs to operate and maintain our network in good working condition to meet service requirements. This includes performing activities to test, maintain and repair the network e.g. scheduled or planned maintenance of particular network assets or ad hoc maintenance problems reported by BT staff or customers.

Network Support

Network Support consists of the sectors below. The key drivers for the apportionment of network support costs include pay, the relative floor space occupied by fixed assets and the current cost replacement value of assets.

CostPerform sector	Description	Includes:
ВК	Plant Support	The costs of activities undertaken to support the running of our Network. This includes: government levied business rates payable on BT network installations and specialised estates such as telephone exchanges and radio stations; coaching pay costs booked by Customer Service Coach (CSC) staff; Transmission Repair and Control pay costs on all core transmission equipment and private circuits; pay costs for the provision, re-arrangement or cessation of network services; pay costs relating to plant protection and inspection associated with statutory notices (e.g. inspection of low voltage overhead power crossing clearance); and miscellaneous support work costs (e.g. the cost of installation (and subsequent recovery) of emergency plant incorporated in the network at the time of failure of other plant).

General Management

General Management consists of the sectors below. The key drivers for the apportionment of General Management include pay costs and activity surveys.

CostPerform sector	Description	Includes:
ВО	General Support	Staff costs for BT people in the UK transition centre or completing project work. Other costs related to computing, security, mobile and general network maintenance. Also includes cost for payments relating to service level guarantee scheme, wayleaves payments in respect of network plant and the Ofcom administration fee.
B4	Planning and Development	Costs relating to the planning of the network and the development of new technologies and service offerings e.g. pay costs for operational planning, including agency staff, and research and development contracts.
B5	Operator Services	Costs associated with operator assistance (OA) services, emergency calls, and directory enquiry (DQ) services.
B6	Supplies	Costs associated with the procurement of materials and services (to support business operations) and the issuing of supplies from stores. This includes outsourcing of finance and accounting work, logistics and procurement pay costs, freight and carriage costs of items held in stores, tools and small items.
В7	Transport	Costs associated with vehicles e.g. costs of acquiring, maintaining, leasing, managing and retiring our fleet of vehicles.

ВА	Computing	Mainly BT Technology costs re-charged to the rest of BT Group for their use of services such as computer operations, research and development and user support to our employees e.g. installing, setting up computers and helpdesk support.
ВВ	Customer Service	Costs associated with customer service activities to maintain customer satisfaction e.g. call centre management and customer service field operations such as faults and maintenance tests.
BE	Personnel and Administration	Costs associated with the provision of personnel services e.g. recruitment, release of staff/redundancies, development and implementation of performance management processes and other human resources (HR) support activities.
BF	General Management and Other	Costs associated with general management activities and other general expenses. This includes: New Starter or Leaver payments; general management pay costs for board members of business units; senior managers and support staff working on general management activities; general management and other incidentals such as costs for conference facilities; general legal charges; group insurance charges; corporate provisions; and operating costs incurred by our non-core businesses (i.e. subsidiaries and self-accounting units).
BV	Customer Support	Costs associated with performing diagnostic tests in support of maintenance and repair work and operation of the work manager system to schedule and control repair and maintenance work undertaken by BT engineers.

Accommodation

 $Accommodation\,sector\,consists\,of\,the\,following\,sectors.\,Accommodation\,costs\,are\,mainly\,apportioned\,based\,on\,the\,use\,of\,floor\,space\,and\,utilities.$

CostPerform sector	Description	Includes:
BC	Accommodation	Costs incurred for buildings maintenance, decoration of sites and buildings, costs of rent payable to landlords on buildings occupied by BT, costs of business rates on land and buildings, building electricity supply costs in both operational and office buildings, and payments to external contractors for cleaning services in BT accommodation.

Other Costs

Other Costs includes Finance and Billing, Bad Debts and Other Costs, consists of the sectors below.

Bad debts include costs associated with writing off amounts that cannot be collected from customers. The key drivers for the apportionment of Finance and Billing include activity surveys and pay costs and the key drivers for Other Costs include the pence per minute charging of the other operators for BT traffic on their network.

CostPerform sector	Description	Includes:
B8	Marketing and Sales	Costs to retain and win business from existing or new business and retail customers. This includes: conducting market research to gain intelligence on BT's Markets and understanding the demands of our customers and competitor services; providing marketing services such as the design, planning and implementation of marketing activities, publicity and promotions; managing contact with customers; and handling customer orders such as understanding the specific needs of the customers, confirming their credit vetting, and determining the feasibility of meeting the order requirements.
B9	Finance and Billing	Costs incurred from various activities of financial nature, such as budget building and management reporting, and costs incurred to generate a bill for the customer to collect payment. Accounting and general finance activities include financial and management accounting, budgeting, forecasting and payroll processing activities. Billing activities include customer service, billing and credit control, bad debt costs and post office handling costs.
BG	SLRC Variance	Cost variances between actual labour costs and the standard rates used for management costing purposes.
BU	Elimination of Intra-group	Transactions between BT Group businesses.
BW	Bad Debts	The internal and external costs associated with writing off amounts that cannot be collected from customers. The majority of these costs relate to the Rest of BT Residual market.
C1	Other Operating Income	Other operating income relating to non-telecommunications services and hence separately recorded from BT's core revenue (calls, connections and rental charges, etc.). This mainly consists of profits on the disposal of land, buildings and sale of scrap copper cables.
C2	Payments to OCP	Payments made to OCPs (other communication providers) for use of their network e.g. where BT carries a call originating from a BT customer but terminating on another operator's network, BT makes a payment to the Operator for carrying the call over their network. Payments

CostPerform sector	Description	Includes:
		may also arise from transit traffic where BT carries traffic over its network for part of a call, but also uses another operator's network. Payments are also made for Premium Rate Services (PRS) where BT customers make calls to the premium rate service telephone numbers of other operators and calls to BT Freephone numbers.
C7	Internal Product Charge from Core	Transfer charges for products used internally within BT. For internal management purposes, BT runs a 'transfer-charging' process. GL codes for the transfer charges are set up as matched pairs, one for the charge out and one for the charge in. These GL codes are associated with F8 codes. Therefore there will be matching pairs of F8 codes, one for the charge out (F8 codes beginning with '24') and one for the charge in (F8 codes beginning with '28').
F0	Specific item interest	The net amount of interest payable and receivable by BT on its bank balance which relates to specific items e.g. pensions.
F2	Net Short Term Interest	The net amount of short term interest payable and receivable by BT on its bank balances.
F3	Associated Companies	The share of profit or loss before tax of associated undertaking and the profit and loss account charges for the amortisation of goodwill arising from the acquisition of subsidiary undertakings.
F4	Corporation Tax	The current year corporation tax charge for BT and subsidiaries, as well as prior year adjustments.
F5	Deferred Tax	The current year deferred tax charge and prior year adjustments.
F6	Long term Interest Payable	The net amount of long term interest payable and receivable by BT on long-term loans.
F7	Dividends	Proposed dividends which are payable to the shareholders
F9	Minority Interest	The share of the profit after tax which belongs to minority shareholders.
FB	Goodwill Impairment	A charge against the goodwill's carrying value.

Depreciation

Depreciation is analysed between land and buildings, access, switch and transmission and other (including network power, computers and software). This is described in the individual asset sectors below.

The key drivers are engineering models and direct mapping of BT classes of work to network components and then onto the appropriate service, based on usage factors and actual service volumes.

1.3 Balance Sheet sectors

Land & Buildings

This sector contains the asset values that are booked to BT Classes of Work for land and buildings, including freehold, long leases and short leases. The sector includes corporate office and network buildings owned by BT. Asset values are mainly apportioned based on the use of floor space and utilities.

CostPerform sector	Description	Includes:
DF	Accommodation Plant Network	The asset values and depreciation for Network Plant Accommodation necessary for the operation of network equipment e.g. ventilation and cooling plant. Specific assets held within this sector (by CoW) include: • ACPM - Accommodation Plant, Equipment-Related Motor Transport. This includes purchasing, installing and recovery of transport related equipment. • ACPS - Accommodation Plant, Security. This covers the provision and installation of security equipment for Land and Buildings. • ACPR - Accommodation Communication Plant Rooms. • ACPA - Accommodation Plant Access Services Division (ASD) such as the cost of construction provision, installation and recovery of ASD (i.e. Openreach network equipment-related plant, also known as accommodation plant). • ACPN - Accommodation Plant, Equipment Related Network Operational Buildings. • ACPC - Accommodation Plant - Computer Centres. • BTSSE - BT Sport Studio and Equipment.
DP	Land	The asset values for land analysed between historical cost values and the CCA adjustments applied to provide a current cost valuation of the assets. The main classes of work against which land values are recorded are land freehold, land long lease (LFH) and land short lease.
DQ	Buildings	The asset values and depreciation for buildings fixed assets. Buildings relate to the freehold, long leasehold and short leasehold buildings that we own such as corporate office building, our shops and service centres, and network buildings (e.g. exchange buildings) that we own. This includes:

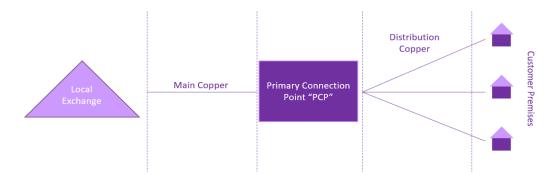
CostPerform sector	Description	Includes:
		 BCB – New building construction costs: building costs incurred in constructing a new building on a cleared site. BCR – Refurbishment costs: building costs which, excluding work as defined as extensions, results in a genuine improvement and will lead to an enhancement in the letting value of the property. BCS – Security costs: the provision, installation and recovery of security fencing.
DR	Accommodation Plant Other	The asset values and depreciation costs for other accommodation plant.
		Accommodation plant assets are held in our freehold, long leasehold and short leasehold buildings, and contains asset items such as furniture and sundry other items used in the buildings. This includes:
		 ACPB - Accommodation plant, Buildings Related, comprises the cost of construction, installation and recovery of those parts of buildings which qualify as plant; ACPI - Integral Accommodation Plant: cost of construction installation and recovery of those integral parts of buildings which is on the integral features list; AFH - Accommodation Plant in our Freehold buildings; ALL - Accommodation Plant in our Long lease buildings; and ASL - Accommodation Plant in our Short lease buildings.

Access - Copper

This sector contains the asset values for access copper (all the copper cables in the access network and all other necessary equipment required to carry signals between the user and the exchange). It includes 'Main' Copper and 'Distribution' Copper, as illustrated in the diagram below. The key driver is the direct mapping of Classes of Work (CoW) to network components and then onto the appropriate service based on usage factors and actual service volumes.

The sector consists of:

CostPerform sector	Description	Includes:
D2	Access: Copper	 LDC and LDCP – Construction, Local Distribution Cable for the provision or recovery of Access Copper Distribution and Branch Cables applicable to the copper build programme. This covers all work to increase the capacity of the network. Excludes duct. LDCR – Renewal, Local Line Copper Distribution Cable for the replacement of Access network metallic distribution and branch cables. LMC and LMCP – Construction, Local/Main Exchangeside Cable relating to the provision or recovery of Access Copper main cables to increase the capacity of the network. LMCR – Renewal, Local Line Copper Main Cable for the replacement of Access network metallic main cables and ancillary plant as a result of a fault. NWB/NWR - Provision and Installation of business and residential Exchange lines. TCN – Renewal of any Network asset as a result of criminal damage (Duct and Cable) UMAG – Equipment purchased to support, maintain and develop the infrastructure for BT TV and BT Sport service delivery platform



Access - Fibre

This sector contains the asset values and depreciation for access fibre and radio. The key driver is the mapping of CoW to network components and then onto the appropriate service based on usage factors and actual service volumes.

CostPerform sector	Description	Includes:
D1	Access: Fibre and Radio	The asset values and depreciation for Access Fibre (optical fibre cables in the access network) and Access Radio (cellular, microwave and satellite radio systems used to connect the user and the exchange). This includes costs relating to:
		 LFDC and LFSC - Construction of Local Line Optical Fibre Spine and Distribution Cable such as the provision, re-arrangement and recovery of optical fibre cable, blown fibre tubing, blown fibre bundle, and sub duct in the access fibre network. LFXE - Construction of Local Line Exchange Service Module.
		LFME - Construction of Local Network Service Module Equipment.
		 MICRO - Provision of Micro connect equipment TPWA - Construction of Access Radio Systems.

Government Grants

This sector contains the value of assets which have been funded by government or local authority grants. The key driver is the mapping of CoW to network components and then onto the appropriate service based on usage factors and actual service volumes.

CostPerform sector	Description	Includes:
D0	Grant Funded Assets	This includes receipt of government grant funding in relation to eligible capex spend that has been incurred and relates to:
		GFA – This includes grant funded assets, received from a local or regional authority or from a devolved government body such as: Broadband Delivery UK (BDUK) grant funding as part of the Community Fibre Partnership program.

Access - Duct

This sector contains the asset and depreciation values for duct. Duct is a pipe, tube or conduit through which underground copper or fibre cables are passed. Duct in the network is split into 'main'/'Exchange Side' (Class of Work LMD) and 'Distribution' (Class of Work LDD), Main Underground Duct (Class of Work MUD) and Core Junction Duct (Class of Work CJD). The fibre Network is split into similar sections; the Exchange side is known as 'Spine Fibre' and the Distribution side is known as Distribution Fibre and the main is Core Fibre. The key driver is a duct occupancy model that allocates CoW to network cable components and then onto the appropriate service based on usage factors and actual service volumes.

CostPerform sector	Description	Includes:
D3 & DB	Access: Duct Core Transmission: Duct	Asset values and depreciation for Access Duct. Specific assets include the costs of provision or recovery of: • CJD/CJDR - Construction/Renewal of Backhaul/Inner Core Duct. This asset class covers the provision and recovery/renewal of Core network duct. • LDD - Construction of Local Distribution Duct for Copper Cable. • LMD - Construction, Local main (Exchange-side) Duct for Copper.

• LDR - Renewal, Local line Duct for Copper Cable (either
Main or Distribution) to replace or partially replace duct
for Access copper cables.
 LFD - Construction, Local Duct for Optical Fibre Cable in
the Access Fibre Network.
MUD/MUDR - Construction/Renewal of Backhaul/Inner
Core Duct. This asset class covers the provision and
recovery/renewal of Backhaul/Inner Core Duct.
Construction covers all Core Network duct work.

Switch

This sector contains the asset values and depreciation for switching equipment located in BT exchanges and provides the switching function of telephone networks. The key drivers are engineering models that allocate CoW to network component and then onto the appropriate service based on usage factors and actual service volumes.

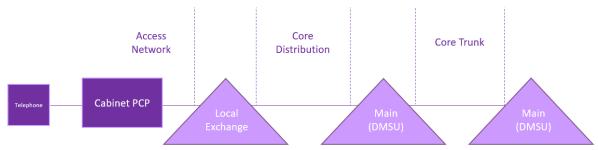
CostPerform sector	Description	Includes:
D4	Local Exchanges: Digital	 The asset values and depreciation for: DMC - Construction Operator Service System - Provision and recovery of operating access, Automatic Voice Response (AVR), Directory Assistance System and Operator Keyboard Display Terminal equipment controlled by Operator Services. Digital Local Exchanges LDX/LUX/LYX - Construction, Local Digital Exchange. This asset class covers all equipment and associated costs incurred as part of basic exchange provision, extension, or re-arrangement. This includes CoWs: LDX for Digital Local Exchanges manufactured by System X; LYX for Digital Local Exchanges manufactured by Ericsson. Main Distribution Frames LMDF - Construction, MDF for exchanges. This asset class covers the provision, extension, upgrade, replacement, re-arrangement and recovery of MDFs connected with Inland (BTUK) telephone exchanges. MDFs are those distribution frames providing direct interface with external circuits terminations (customer or other exchanges).
D8	Main Exchanges	 The asset values and depreciation for the provision, rearrangement, recovery and upgrade of: ASU - Construction, Advance Service Units Switching CSNC - Construction, Universal Card Platform (FAR) MDX - Main Network Switching Digital which are digital exchanges providing certain functions to digital traffic e.g. setting up and clearing down calls, switching traffic and signalling to other exchanges and subscribers. NGS - Next Generation Switch, which is a newer form of switch. There are two types: one using traditional circuit switching technology; the other a hybrid using ATM packet switching technology.
DC	Intelligent Networks	The asset values and depreciation for the Intelligent Networks Platform that allows functionality to be distributed flexibly at a variety of nodes on and off the network and allows the architecture to be modified to control the services. The 'Intelligent Network' provides network functionality beyond basic switching. Specific assets include: Costs of construction of the Intelligent Networks Platform (INC)

CostPerform sector	Description	Includes:
		Costs of the Signalling Network and Interconnect (SIGNI) including Signalling Transfer Point (STP) and Signalling Point Relay (STP) switches and Signalling Traffic Management (STMS) equipment.

Transmission

This sector contains the asset values for transmission. Transmission includes Core Transmission Synchronous Digital Hierarchy (SDH), Plesiochronous Digital Hierarchy (PDH), Asynchronous Transfer Mode (ATM), Cables and Repeaters.

The Core transmission network is used to link exchanges. For AS purposes the Core Transmission network is split into the Core Distribution network and the Core trunk network, illustrated below:



CostPerform sector	Description	Includes:
DA	Core Transmission: Cable and Other	 BHQ – Construction of Submarine Cable Inland CJC – Construction of Junction Metallic Pair Cable CJF – costs associated with the Construction of Core Optical Fibre Cable in the Core Network. CRF – costs associated with the Construction of Repeaters, Optical Fibre in the Core Network. CRD – costs associated with the Construction of repeaters, digital, non-optical in the Core Network. MUC – costs associated with the Construction of Main Underground (Core) Cable to increase the capacity of the network.
DD	Other Transmission	 ATM/ATMW - capital expenditure for Asynchronous Transfer Mode platform equipment. ATM (also referred to as Broadband Integrated Services Digital Network (ISDN) is a cell-switched technology. All broadband transmissions (whether audio, data, imaging or video) are divided into a series of cells and routed across an ATM network consisting of links connected by ATM switches. CRHQ - provision of analogue, plesiochronous digital or optical equipment in the Trunk Network. NCRR - International Radio and Repeaters. This asset class is used for Earth Station Capital expenditure on Broadcast Services or Shared Infrastructure Earth Station Assets. SDH - Costs of provision and re-arrangement of Construction of Synchronous Digital Hierarchy transmission equipment. SDH is a key element of BT's core transmission network. TPWC - Construction of Trunk & Junction Radio Systems.
DK	Private Circuits and SMDS	DTTM - Construction of Customer Wideband Services. This asset class covers contract, stores and labour for the construction, installation, commissioning, replacement, re-arrangement of equipment at local exchanges and customer's premises to carry wideband services to customers such as: Wideband bearer electronics to

CostPerform sector	Description	Includes:
		 support Kilostream service; Access SDH; and test equipment for testing and maintaining customers' wideband services. DTTK - Construction of Kilostream/Automatic cross Connect Equipment (ACE) Services. This asset class covers contract, stores and labour for the construction, installation, commissioning replacement, and rearrangement of core network equipment for Kilostream Private Circuits. DTTS - Construction of Customer Wideband Services. This asset class covers construction, provision, installation, commissioning, replacement, re-arrangement or recovery of electronic equipment (but not service) for the various Short Haul Data Services (SHDS). DTTW - This asset class covers cost of provisions (such as stores and labour) for the construction, installation, commissioning, replacement and upgrade of equipment at BT local exchanges and customer premises. DTTSW - Construction of SHDS links. Includes: construction; provision; installation; commissioning and replacement; and electronic equipment for products incorporating SHDS equipment.
DT	21st Century Network	 CCI (Common Capability Intelligence) - Common Capability Intelligence is a set of re-usable components used to build our products and services. It includes session management and intelligence voice routing, authentication of customer identity, identification of customer location and instant messaging. Ethernet Switches - Ethernet Switches are for Connectivity access into the network and are located at sites that can take advantage of WDM transmission to send and receive traffic to the Metro node. MSAN (Multi Service Access Nodes) - provide customer access into the network for Voice, Broadband and some Connectivity via line-cards and the traffic generated is sent to Metro Nodes for switching. This can be via other MSANs. Metro/Core Nodes - Core Nodes are a special type of Metro Node where there is a mesh or net of transmission between them. Most Core nodes are connected to all other Core Nodes. Metro Nodes switch traffic and contain the intelligence to direct its path. All traffic will traverse the Metro Node to some degree whether it falls into the category of Voice, Broadband or Connectivity. 21C WDM Transmission (Wave Division Multiplexing). i-Nodes (Call Servers) - i-Nodes are used just for Voice customers and contain intelligence for numbering and the intelligence for routing i.e. Call Set-Up and Network Features.

The key drivers are engineering inventories and models that allocate CoW to network components and then onto the appropriate service based on usage factors and actual service volumes.

Other Fixed Assets

This sector contains the asset values for a range of assets used by BT businesses including categories such as Software and Motor Transport. The key drivers are surveys, engineering models and direct mapping of CoW to network components and then onto the appropriate service based on usage factors and actual service volumes.

CostPerform sector	Description	Includes:
DG	Network Power	TPC - Construction of Telecom Power Plant. This asset class covers the provision, installation, construction, replacement and re-arrangement of power plant systems and distributions feeding network operational equipment in operational buildings, i.e. telephone, radio and repeater stations.
DH	Capital Miscellaneous	 Miscellaneous capital expenditure. This includes: Right-of-use assets recognised due to the implementation of IRFS 16 ADSL - costs of contract, store and labour for the Construction of Digital Subscriber-line. LXTM - Provision of common or centralised test, monitoring or access equipment for Local Exchanges NTC - Initial purchase of high value tools and testers used in the construction and maintenance of the Core and Access networks WMSCA - Capital Expenditure associated with Wholesale Managed Services
DI	Other Non-Voice Plant	 IPNC (Internet Protocol Network Capital) and IPNCW (IPNC Wholesale) including assets and depreciation. MMC - All equipment and associated costs incurred solely by Internet and Multimedia Services (IMS) as part of the basic provision, extension, re-arrangement and recovery of equipment associated with the provision of IP products.
DJ	Net Enabling Computers	Network enabling computing fixed assets and depreciation.
DL	Public Payphones	 PCOH and PCOP - the planning, provision and recovery of payphone housing and mechanisms, including lighting and power, other than managed sites. PIN - All costs associated with the provision and installation of PIN operated Payphones, excluding the cost of maintenance.
DM	Apparatus	 This sector predominantly contains the asset values and depreciation of non-core ledger fixtures and fittings. This includes: FRNCP - comprises the cost of installation of general office furniture (including individual desk, chairs, pedestals, side tables, cabinets, cupboards, bookcases, discussion area furniture and meeting room furniture)
DN	Motor Transport	NVAC - New Vehicles and Accessories purchased and include pool cars, vans, light goods vehicles, heavy goods vehicles and 4 wheel drive vehicles and trailers.
DO	General Computers	 COMPA - BT Own Use Computer Mainframes and Peripherals. This includes computers which require a controlled environment e.g. air conditioning, water cooling, includes front end processors, tape drives, disk drives, silos, dedicated terminals etc. COMPD - Computers which may perform similar kinds of applications as mainframes but have less storage capacity, processing power and speed than a mainframe. Also they do not require a controlled environment.

CostPerform sector	Description	Includes:
		 COMPE - BT Own Use Personal Computers. Includes the processor, display monitor, keyboard, internal CD ROM and modem, one or more diskette drives, internal fixed disk storage and the operating system software purchased as an integral part of the PC. COMPF - BT Own Use Data Communication Equipment. These includes data transmission hardware and test equipment such as modems, multiplexors, routers, bridges, patch panels, protocol converters, line testers, monitor protocol analysers, cluster controllers, hyperchannels, file servers and Open System Cabling Architecture (OSCA) cables. IABC - Internal Infrastructure Cabling and Local Area Networks (LAN) in BT offices.
DS	Office Machines	 IDX - Big and Large Switches. This asset class covers the provision of all big and large switches and of small/medium switches with an installed cost in excess of £1,500. OM - Office machines (BT own use). This asset class covers the procurement and installation of office machines for BT's own use, where the cost is £1,500 or more.
E4	Materials Awaiting Installation	Items awaiting installation are not yet booked against specific Classes of Work.
EA	Software	 Application system software - Designed to meet a specific business need with an established intended use (and not for use for any other purposes). Operating system software - Manages the basic operations of a computer system and the flow of information into and out of the main processor. Example CoW included is LIC (Licences for Intangible assets)
ЕВ	Goodwill	Includes goodwill.
EC	Other Intangible Asset	Identifiable intangible assets such as indefinite life assets.
ED	Assets from Acquisition	Intangible assets recognised during acquisition.
EZ	Non-Current Assets	Non Current Receivables includes costs relating to the initial set-up, transition or transformation phase of long-term networked IT services contracts and prepayments and leasing debtors.

Investments

CostPerform sector	Description	Includes:
E5	Other Non-Current Assets	This includes miscellaneous other non-current assets.
E7	Other Investments	This includes miscellaneous other investments.
E8	IFRS 15 Non- Current Assets	This includes the deferred contract costs or the contract assets associated to IFRS 15 which are due after 1 year

Inventories

CostPerform sector	Description	Includes:
G0	Programme Rights	TV Programme Rights, e.g. BT Sport
G1	Trading Inventories	Trade and finished goods inventories;Work in progress; andRaw material inventory.

Internal Receivables

CostPerform sector	Description	Includes:
GN	Intra-group Receivables	 Internal trading between our Customer-Facing Units (CFUs) relating to receivables. Notional receivables are based on an approximation of the debtors that would be incurred if trades between BT's Customer-Facing Units (CFUs) were undertaken to a third party and at arm's length. The moving average debtor days is applied to all revenue (internal and external) by market to calculate the reported Notional Receivable value.

External Receivables

CostPerform sector	Description	Includes:
G2	Trade Receivables	 Geneva receivables - These are receivables associated with invoices raised through the Geneva system, a billing system used by BT Retail, Global Services and BT Enterprise. It contains customer data, such as the Products they currently rent, usage and any discounts applied. Customer Service System (CSS) billed receivables - These are receivables associated with invoices raised through the CSS. These receivables' balances are generated by the Retail business unit of BT and include, for example, balances for invoices due from PSTN call services provided to business and residential customers. Other Communication Provider (OCP) receivables.
G3	Intra-group Receivables	 Internal trading between our Customer-Facing Units (CFUs) relating to receivables.
G4	Short Term Investments: TP	 Listed UK investments; Listed non-UK investments; Unlisted investments; Overnight deposits; Term deposits at banks; and Certificates of tax deposits.
G5	Short Term Investments: IG	BT's intra-group investments (funds deposited by one area of the business into another part of the business) are directly allocated to Rest of BT Residual.
G6	Cash At Bank	The material balances in this sector represent sterling bank accounts, with different F8 codes used for accounts with different banks.
G8	IFRS 15 Current Assets	This includes the deferred contract costs or the contract assets associated to IFRS 15 which are within 1 year
G9	Accrued Income	This sector relates to the balance sheet value of accrued income for services provided to and used by customers

CostPerform sector	Description	Includes:
		but not yet invoiced by BT. Accrued income arises where the invoice schedule for a particular customer service allows the customer to use the service in advance of being billed e.g. for telephony calls made by residential customers, where customers are billed quarterly in arrears for the call charges.
GA	Prepayments	Prepayments of general expenditure from BT.
GB	Other Receivables	This sector relates to the balance sheet value of Other Receivables for amounts owing to BT. It contains sundry and miscellaneous receivable balances.
GD	Derivative Financial Instrument (Current Assets)	This sector holds the balance sheet value of current derivative financial instruments and relates purely to Rest of BT Residual products.
GH	Asset held for sale	This sector holds receivables in relation to assets held for sale

Current Liabilities - External

CostPerform sector	Description	Includes:
H1	Short Term Borrowing	 The borrowings include: Overdrafts; Short-term loans; Other short-term loans (excluding bank overdrafts); Commercial paper; and Liability balances on commercial paper held by the Treasury.
H2	Provisions under one year	Potential liabilities faced by BT that are due within a year.
H3	Trade Payables	 The key balances of trade Payables in this sector include: Accounts Payable control; Other Communication Provider (OCP) Payables; and Capital Trade Payables other.
H4	Intra-group Payable	• Internal trading between our Customer-Facing Units (CFUs) relating to payables.
H6	Other Tax and Social Security	 Key balances include: Output VAT payables, arising from VAT collected by BT from its customers; Input VAT receivable balances, arising from VAT paid by BT on inputs purchased; and National Insurance contributions for employees, payable by BT.
H8	Other Payables	Sundry and miscellaneous payable balances.
H9	Accrued Expenses	Accrued expenses not yet paid by BT.
НА	Deferred Income	 Income received for services not yet provided to customers.
HD	IFRS Current Liabilities	 IFRS 15 related deferred income for a period under 1 year Current Right-of-use liabilities recognised due to the implementation of IFRS 16.
HF	Derivative Financial	This sector holds the balance sheet value of derivative financial instrument payables and relates purely to Rest of BT Residual products.

CostPerform sector	Description	Includes:
	Instrument (Payables)	
НН	Asset held for sale - liabilities	This sector holds liabilities associated with assets held for sale
HZ	Other Payables	Non-current portion of leases and deferred income which is recognised in Rest of BT Residual.

Provisions for Liabilities and Charges

CostPerform sector	Description	Includes:
12	Other Provisions (i.e. those not included in sector H7)	Regulatory provisionsDilapidation provisionsDeafness and Lung provisions
14	Pension Provisions	This includes pension-related provisions

Annex 2 Openreach reporting

2.1 Introduction

On 10 March 2017, we notified Ofcom under section 89C of the Communications Act 2003 of changes to the structure and governance arrangements relating to the Openreach Division described in Commitments. In 2018 we fulfilled the Commitments we gave to Ofcom following its Digital Communications Review. In accordance with section 20.3 of the Commitments, the RFS separately present the financial results of Openreach Division and include a reconciliation of Openreach Division's revenue, operating cost and return or profit before tax (and other items agreed between us and Ofcom) with the financial information about Openreach Division as shown in BT Group plc's Annual Report and Accounts. This financial information is subject to an independent audit.

This section outlines the methodologies used to present the financial results of Openreach Division ('Openreach Information') within the RFS and the reconciliation of that statement to the Openreach Division segmental financial information as shown in BT's Annual Report.

As specified in the Commitments, the form, content and basis of preparation of the Openreach Division Information follows that used in the preparation of the RFS.

Commitments

In 2018 we fulfilled the Commitments we gave to Ofcom following its Digital Communications Review. Ofcom was broadly satisfied with our progress, including the incorporation of Openreach Ltd as a wholly owned subsidiary of BT plc, with its own board and greater strategic independence, and completing the TUPE transfer into the new Openreach Ltd of the employees from BT plc. Our next priority is to fulfil our commitment to make information sharing between BT and Openreach more transparent.

We continue to monitor and provide assurance to Ofcom on our compliance with the Commitments, and Ofcom continues to monitor the interaction between BT and Openreach.

2.2 Openreach product groups

In accordance with section 3.2 of the Commitments we have broken down the Openreach Division provided SMP products into the broad product groups. The product groups that we use are the same as the relevant Markets we have used in the main RFS except for "Other Openreach Markets & Activities (with no SMP reporting obligation)".

The following is a list of our product groups. The mapping of services into these product groups can be found in the Wholesale Catalogue, with the exception of "Other Openreach Markets & Activities (with no SMP reporting obligation)":

- PIA Services
- Wholesale local access
- CI Access services BT Only Areas
- CI Access services BT plus one Areas
- CI Access Services High Network Reach Areas Outside CLA
- Technical Area Inter-exchange Connectivity (Dark Fibre Circuits)
- Technical Area Inter-exchange Connectivity (Non-Dark Fibre Circuits)
- Wholesale fixed analogue exchange lines
- Wholesale ISDN2 exchange line services
- Wholesale ISDN30 exchange line services
- Other Openreach Markets & Activities (with no SMP reporting obligation). These activities include CISBO Residual area (CI Access services – CLA Areas and Technical Area – Inter-exchange Connectivity (Non-Dark Fibre Circuits) plus two or more) and some services only sold internally such as element-Partial Private Circuits (ePPCs).

All of these services, with the exception of ePPCs, are described on Openreach's website: www.openreach.co.uk.

ePPCs are an internally supplied service that provides the access network and backhaul network elements necessary for the rest of BT to provide Partial Private Circuits (PPCs). ePPC costs, assets and liabilities are included (together with additional rest of BT costs, assets and liabilities) in the RFS as an input to PPC services in Rest of BT Residual.

2.3 Format of the Openreach information statements

The format of the Openreach regulatory Income and Mean Capital Employed statements are consistent with the sector analysis in the RFS.

2.4 Disaggregating SMP defined information into Openreach regulatory statements

The basis of disaggregating the SMP defined revenue, associated costs and capital employed into information used to prepare the Openreach regulatory statements is described below.

2.5 Openreach revenue

Revenue is based upon published prices multiplied by Openreach volumes, consistent with our RFS. We have used volumes associated with Openreach products. Against the identified volumes we apply the published price, where products are sold externally or internally, to arrive at the reported revenue for Openreach.

For services which are only sold internally and where there is no applicable published price, revenue is calculated on the prices that have been agreed internally between Openreach and the other BT divisions e.g. for the supply of ePPCs.

2.6 Reconciliation of Openreach income statement

The reconciling differences between the Openreach Information and the Openreach segmental financial information reported in BT's Annual Report fall into the following main categories:

- i. Basis of preparation under Current Cost Accounting (CCA): BT's Annual Report has been prepared under the historical cost accounting (HCA) basis, modified for the revaluation of certain financial assets and liabilities at fair value. BT's RFS have been prepared on a CCA basis.
- ii. Cost of capital adjustment for internal trading: Within the Openreach segmental financial information reported in BT's Annual Report, there is a charge for an appropriate return on capital where assets are owned by the BT Technology division (e.g. for line cards, electronics and network features) but are used by Openreach. The Openreach regulatory statements do not include this charge, as the basis for allocation of costs and assets to products in the regulatory accounts is actual costs and assets.
- iii. Other reconciling items and trading differences: This adjustment relates to other trading differences that may occur from period to period in attributing costs for the RFS. Internal transfers raised between businesses are ignored within the RFS for both the OUC raising the charge and the OUC receiving the charge so as to reflect the true regulatory end-to-end costs of each unit. The total regulatory cost of each category is compared to the equivalent traded costs within the management accounts to calculate individual reconciliation differences and the sum of the differences incorporated as the total reconciliation difference for trading differences.
- iv. Non-traded costs: Costs shown separately from the Openreach segmented results in BT's Annual Report are included as a separate line to enable reconciliation between the accounts.

We do not publish Openreach segmental balance sheet information in our Annual Report and consequently are unable to publish the Reconciliation of Openreach MCE Statement in the RFS.

Annex 3 Data sources

3.1 Introduction

As part of gathering data to both inform and use as part of our attribution methodologies we use a variety of data sources from across BT. Where these are systems they are recorded with unique 'app IDs' on a BT database called the Enterprise Data Repository (EDR) Hub which replaced SALSA (Single Authorised List of Systems and Applications) – it is the approved repository of the list of every IT System across BT. These systems are often referred to in our methodology dictionaries under the data sources section of an entry.

In some instances we have considered whether it provides better information to readers if we set out where we use a mixture of different systems, types of data (e.g. billing information) and assumptions to derive and employ our attribution methodologies. We have consequently separately identified 21CN volumes and capital expenditure data sources and assumptions below.

3.2 High level summary of systems

Below is a summary list of data sources used within the RFS as obtained from the EDR Hub.

Source System	APP ID	Full System Name
A&I CMS	APP02540	Accommodation & Infrastructure Content Management
7 (3.1 37) (3.1	7	System
AIM	APP03186	The 5620 Analysis And Inventory Module
ASC	APP00045	Automated Supply Chain
ATLANTIS	APP10024	Geneva - Local Loop Unbundling, Wholesale Line Rental
BIP (WCR)	APP02121	Business Intelligence Platform
Bridge	APP00092	Bridge
Building Energy Management	APP11793	Building Energy Management System
System		
Candid	APP03687	Contractor Access Network Delivery Information
		Database
CCMIS	APP01433	Complementary Channel Marketing Management
		Information System
CID IPL	APP07600	CID - Internal Projects Ledger
CID	APP00224	Central Information Database
COSMOSS	APP00257	Customer Oriented System for the Management Of
		Special Services
CostPerform	APP14549	System used for RFS preparation
CSS	APP00299	Customer Service Systems
CTCS	APP03614	Core Transmission Circuit costing System
eCensus	APP02464	eCensus
EXPRES	APP00423	Exchange Planning and Review System
Genius	APP00526	GENEVA -Local Loop Unbundling
HORIZON (Telereal)	APP09801	BT Property HORIZON (Telereal)
Hyperion	APP00580	Hyperion
INCA	APP00612	Inter-network Call Accounting System
INS	APP00616	Integrated Network Systems
ISIS documents	APP06903	ISIS
LLFN network	APP12518	London Local Fibre Network
LLUMS	APP08506	Local Loop Unbundling Management System
LRIC	APP06047	Long Run Incremental Costing Model
Navision	APP09103	Navision Former BT Infonet France
NCL PACS	APP00997	Network Control Layer Planning Assignment and
		Configuration System
NIMS OR	APP00788	Network Instruction Management System Openreach
NISM NT	APP00791	Network Inventory And Spares Management System -
		New Technologies
NRMS AUDIT	APP02611	Network Routing Management System Audit
NRS	APP00816	Network Record System
NuNCAS	APP00741	Network Capacity Assignment System

Source System	APP ID	Full System Name
OBOE	APP10269	One BT Oracle Enterprise
ORBIT	APP06635	Openreach Business Information Toolset
Peacemaker	APP00894	Peacemaker
PIPeR	APP02847	Physical Inventory Planning E-Records
PIRM	APP02481	Power Inventory And Routines Manager
POWERHOUSE	APP00922	Powerhouse
PCNBS	APP02046	Private Circuit New Billing System
Redcare BOPS	APP04159	Redcare Billing And Order Processing System
REFINE	APP12439	Regulatory Finance Information Environment
RIDE2	APP01862	Recorded Information Distribution Equipment
The BT People System	APP03839	The BT People System
TITAN	APP01114	The Inter-business Transfer Charging and Agreement
		Network

3.3 Detailed summary of systems

Below is a list of all of the above systems, including a description of the systems and their function within BT.

Detailed System Descriptions

A&I CMS - (Accommodation & Infrastructure Content Management System)

A&I CMS is a Content Management System used to hold all building related CAD records for the Operational Estate in a central repository. Dimensional footprint of equipment placed onto the CAD diagrams is then synchronised with an Oracle database allowing queries on equipment and space utilisation to be run.

AIM - (Analysis and Inventory Module)

AIM is an Alcatel-Lucent application that extracts and stores network inventory, network performance and usage, statistics and alarm data from the MSIP ATM platform element managers and statistics aggregators.

AIM collects detailed engineering data from the 5620 Network Manager, the 5620 Stats Collector, and major Alcatel Core and Edge Switching Products.

Inputs from this data source are frozen.

ASC - (Automated Supply Chain)

ASC is the name given by BT to the AmSOFT system and its interfaces. The ASC primary functions include: stores purchasing; order management; stock control; accounting systems; and foreign currency invoices.

The ASC procurement matching module is used to authorise invoices.

ATLANTIS - (Geneva - Local Loop Unbundling, Wholesale Line Rental)

Atlantis bills BT Openreach services. It is used for the calculation of revenue relating to Openreach related services, and ultimately is used in the Actuals Reporting Cube (ARC) and EST (Ethernet Service Transmissions) for a more specific analysis of Ethernet related revenues:

The Actuals Reporting Cube (ARC) is Openreach's revenue and volumes reporting system. It allows Openreach to analyse it External and Internal revenues and volumes by Communications Provider (CP) which for Internal means BT Customer-Facing Units (CFUs).

The majority of the ARC's External revenue data are obtained from IOTA which is the interface between the Atlantis billing system and BT's ledgers and uses revenue codes to post revenue to the correct general ledger codes and CFU. Three IOTA files, one each for billed, unbilled and provision are received each month and bespoke csv files are created from them and manually uploaded into the ARC.

EST provides main link revenues and average lengths for all Ethernet circuits.

Data used for regulatory financial reporting includes Openreach Ethernet circuit volume and revenue data for new provides, migrations, regrades and rentals. EST includes Openreach Ethernet circuit data that is not recorded on COSMOSS.

BIP - (Business Intelligence Platform)

BIP hosts multiple applications across many servers, primarily for key BT Enterprise programmes involving different products from Broadband, Data & Voice domains. By collecting data from various system including CRM, provisioning, faults, orchestration, it also has as a data warehousing capability to support high volume network data analysis and data mining, business process analysis for assurance and fulfilment and revenue assurance.

Bridge

The Bridge Clarify application was developed as a replacement for the legacy Info/Man system. It is an integrated service management system, providing Incident, Inventory and Desktop & User Access Order provision capability for BT's computing infrastructure, and other computing infrastructure managed by BT Exact for third parties. The Bridge Clarify Incident Management function is the primary problem reporting application used within BT Exact (also used by other CFU's to a lesser degree).

BEMS - (Building Energy Management System)

This system is a single estate management solution that enables control of temperatures and management of power and UXD alarms in Network and Datacentre operational areas. BEMS system uses wireless controller units and sensors connected to web based monitoring software to enable remote control of plant and effective monitoring and reporting of energy use and environmental conditions.

CANDID - (Contractor Access Network Delivery Information Database)

CANDID Is an Extranet System for Openreach Supplier Management Its purpose is to allow information sharing between external suppliers through the BT Firewall and the Openreach Supplier Management Team. It consists of both static information pages chiefly concerning contracts information and dynamic database driven web pages allowing user interaction with the system. The application also has a component called 'Synthetic Code Search' which is a Microsoft Access database used for reference and accessed via a webpage by Openreach planners.

CCMIS – (Complementary Channel Marketing Management Information System)

The CCMIS system consists of an Operational Database Server and two eCloud Servers are currently being configured for service. CCMIS provides an Agile reporting and BI platform to meet the needs of both the Consumer and Business Operation. Strategic solutions are often initially developed here prior to being formally requested of Technology. CCMIS also provides metrics on the VAS call queues, time to answer etc.

CID - (Central Information Database) & CID IPL (Internal Projects Ledger)

This system is both a comprehensive data warehouse of financial and non-financial data at General Ledger (GL) level, volumes and a suite of application software, which enables management information to be extracted. The applications run on the system and service the needs of Group and Divisional financial analysts, field operational managers and business planners.

There are many interfaces from where CID Receives data and the reporting is done via eReports application, one of these is IPL (Internal Projects Ledger).

COSMOSS - (Customer Oriented System for the Management Of Special Services)

COSMOSS is a database used for the provision of Private Services. This includes the provision of Partial Private Circuits sold to Other Communication Providers (OCPs). It is used for new orders, re-arrangements and ceases. It acts as a 'Front End' and generates activities for the various groups involved in providing a Private Circuit.

It includes Working System Size (WSS) and equipment volumes for and Revenue System Size (RSS) for revenue purposes.

COSMOSS is a key input into the Core Transmission Circuit costing System (CTCS) system as explained below.

The LLFN (London Local Fibre Network) platform via COSMOSS provides the revenue data for the products routed over LLFN and other BT equipment.

The LLFN is an analogue private circuit overlay platform providing services to major customers, with an enhanced service wrap within the 0207 and 0208 areas of London only.

The platform is now over 20 years old and primarily is based on PDH technology but is now making more use of SDH. There are various bespoke systems that support the platform along with a raft of BAU systems for order/faults management.

CostPerform

CostPerform supports the regulatory reporting requirements of the business, providing Accounting Separation (AS) results and analysis that form the basis of the regulatory financial statements (RFS).

CSS - (Customer Service Systems)

CSS manages all aspects of Customer Service on the Public Switched Telephone Network (PSTN), from order capture and job management, fault handling to work management and billing. CSS deals with engineering time through the National Job Recording (NJR) system. CSS also supports network management, call itemisation, Issue Handling and line testing. The CSS headquarters system allows national changes (e.g. new Products) to be configured in a uniform, speedy and cost effective manner.

CTCS - (Core Transmission Circuit costing System)

CTCS is financial tool which calculates the cost of product for regulatory accounts (Regulatory accounts are a set of accounts of OFCOM).

CTCS holds volume data which is used to provide allocations to CostPerform. Takes data from INS/PACS network management systems to provide volumes for AS and Esprit.

Although it has a very small user base, CTCS continues to provide key data used by the network cost analysts.

eCENSUS

eCensus is a suite of data collection software, used to report on over 120,000 devices connected to BT's worldwide network, providing core services to a wide range of teams within BT Including: Vulnerability Assessment; Protect BT; BT Security; Group Property; ACP; Core IT; Executive Services; Global Services and others.

eCensus includes the CaVE reporting suite that provides vulnerability reports for a range of security scanning tools (e.g. CCM, IP360).

EXPRES - (Exchange Planning and Review System)

EXPRES is a system used for capacity planning in BT's Local Exchange Network. It provides an inventory of 'capacity in service' available in the Voice Network also known as the Public Switched Telephone Network (PSTN). The system uses this information to forecast future capacity requirements.

EXPRES is extensively used to provide regular switch network data for reports and briefings together with data for key reports to Ofcom and other Communication Providers (CPs). Additionally it is used throughout the business, particularly within planning offices, to provide management statistics and data on the works programme and asset utilisation. It is the definitive source for Network Nodal Identifier (NNI) codes.

EXPRES contains details of the hierarchy of the Voice Network e.g. which local exchanges are linked to which tandem exchanges. System X and AXE10 volumes in the network are sourced from the EXPRES system.

Genius – Geneva (Local Loop Unbundling)

The GenIUS (Geneva Integrated Universal Solution) Programme has a number of applications that delivers a streamlined wholesale billing capability through a single, integrated billing platform. This enables BT Enterprise to reduce the time between provision of service and the issue of a bill, realising cost benefits and supporting the expansion of our product, solution and service portfolio.

HORIZON - (BT Property HORIZON)

This database holds detailed records for BT's properties (e.g. tenure, ownership and floor areas).

This system contains data on the BT Estate (both office and operational). It holds data such as the Net Internal Area (this is the floor space that is billable) and Gross Internal Area (floor space that isn't billable). It records, at Organisation Unit Code (OUC) level, who actually occupies the floor space so that a particular OUC can be billed for usage.

The occupancy details on the database contain the footprints of the equipment. This helps to establish the occupancy split between the specialised, the general purpose or both for each property on the system.

Hyperion

Hyperion is a consolidation & Variance Reporting / Financial Analysis application

Hyperion can essentially be thought of as being four separate services. These are:

- An outbound E115 service to allow international DQ operators to access foreign databases directly via the Volt Delta proprietary workstation product (IDW) which is embedded in the
- An inbound E115 service to allow foreign DQ service providers direct access to BT A Z directory data for search purposes.
- An inbound web service to allow internet service providers direct access to BT A Z directory data for search purposes.
- A hub solution (known as Columbus) for LSSi to provide access to foreign databases (via our outbound E115 service) to their DQ operators in the USA.

INS - (Integrated Network Systems)

INS is the family name for the architecture encompassing a group of mainframe subsystems supporting Plesiochronous Digital Hierarchy (PDH) core network planning and utilisation processes. These processes manage the assignment of BT's core and wideband network and transmission equipment areas.

It is one of the major Operation Support Systems (OSS) within BT for (PDH) plus the analogue network and holds all data for Cables (Fibre and Copper - non Customer Service System (CSS)), Radio, Bearers, Switch, Equipment and Private Services and is one of the largest online data systems in Europe.

It underpins network technologies and topologies such as Ultra Broadband (UBB), Wavelength Division Multiplexing (WDM), Synchronous Digital Hierarchy (SDH), Internet Protocol (IP), PDH, Kilostream and high bit rate services. It also records the inter exchange network for Public Switched Telephone Network (PSTN) and Featurenet. It fully supports the three main business processes of Provision, Build and Repair.

INS is essentially a data warehouse and is a representation of physical bearers and equipment for logical solutions. It provides end to end routing design and solutions across network platforms for public, private and network services, 20CN and 21CN. It also provides a level of resilience checking.

ISIS Documents

ISIS is the BT Infonet Global Incident Management System for Infonet customers around the world. It is used to capture and progress customer orders and customer trouble tickets. The application is based on Remedy Action Request System Software.

Learning Home

The Learning Home is used to assign and manage all the mandatory training requirements for the whole of BT. Learning Home also manages all of BT's learning and development activities, including the academies and accredited learning pathways.

LLUMS - (Local Loop Unbundling Management System)

The Local Loop Unbundling Management system provides delivery and in-life management of LLU Points of Presence, MDF Connections and TAM. It also includes customised reporting functionality and disaster management information.

LRIC - (Long Run Incremental Cost)

The LRIC model generates the long run incremental cost and stand-alone costs as required by Ofcom. The LRIC approach is a method of cost analysis based on an economic concept which separates costs of a specific "increment" of business activity from the overall costs of the business with the advantage of enabling the business to identify the separable costs of providing certain services. The methodology applied within the LRIC model is explained in more detail within the LRIC Relationships and Parameters document ("the LRIC R&P").

Navision

The Navision/ERP system (G/L, Billing, AP, AR, FA) is for the former BT Infonet France company.

NCL PACS - (Network Control Layer Planning Assignment and Configuration System)

The system supports the planning of the SDH network. It provides support for orders for circuits to be entered manually or via an interface to SSD. These orders for circuits can then be routed, either manually or automatically across the network.

NCL PACS is a key component in E2E Services like 20C Broadband L2C and T2R, 20C Private Ccts L2C and T2R, Wholesale Broadband Connect Infrastructure network. NCL PACS is used to place, route, assign and configure 20C Private Circuits, 21C Infrastructure circuits like WDM, SVLANs, HE/MSIL PACS has two prime functions in terms of providing information on equipment and bearers in the networks:

- 20C Transmission (SDH/WDM) Network Control Layer
- 21C Converged Core Network Control Layer

NIMS OR (Network Instruction Management System Openreach)

NIMS application has been developed to serve the Core and Access Planning communities of network BT. NIMS is used to Plan, schedule, execute, control and monitor the work related to network Infrastructure enhancement and installation. It enables aspects of works planning, logistics control and overall project management to co-ordinate and prioritizes at national and task level. It assists in optimizing capital resources, available time and work to meet business requirements.

Inputs from this data source are frozen.

NISM NT - (Network Inventory And Spares Management System - New Technologies)

NISM NT is used to plan Broadband Equipment.

It is used to manage Core Network Spares & Repair activities for specified technologies. Designed to track Network Equipment, for example slide in units, at 6,300 sites.

NMRS Audit - (Network Routing Management System Audit)

NMRS is a single PSTN network model of exchanges & routes, based on data feeds from NRMS & NTMSP. Inbound data is processed & audited then stored in an Oracle database & presented to the TrafficHawk system as a single network model reference.

Inputs from this data source are frozen.

NRS - (Network Record System)

NRS (Network Record System) is the national system for the allocation/de-allocation and display of PSTN 2Mb Switch Ports and related switch data. The information held by NRS is derived from PSTN switch data, which is refreshed regularly from System X, AXE10, NGS and CAll Server switches.

NRS provides a view of BT Network at interface of switching (System X, AXE, NGS and NGS Hybrid) & transmission domains & view of network which shows PDH, SDH & ATM switch termination details. It includes functionality to enable Switch Decode/Routing structures to be viewed and searched.

NRS also receives switch data from 21CN elements (Call server & CTM) and interfaces with PACS for new equipment deployment. During 2008 the functionality provided by CRAFT (Call Routeing & Analysis Functioning Toolkit, till 2018/19) and NRMS (Network Routing and Modelling System) was subsumed into NRS. This functionality is referred to as NRS-CRAFT and NRS-NRMS respectively. The NRS-CRAFT System produces Route Factors for a range of Services and Operators for telecommunications across the United Kingdom. Route Factors give a view of network component utilisation across BT's PSTN and meet requirements of the Telecommunications Act 2003. They are also published in BT's annual accounts. NRS-NRMS provides users with a graphical representation of the current routeing structure of the network.

Inputs from this data source are frozen.

NuNCAS - (Network Capacity Assignment System)

NuNCAS provides the capacity calculations to determine if access capacity exists in the network to support Asymmetric Digital Subscriber Line (ADSL) Broadband connectivity. NUNCAS supports the following functions:

- 1. Service Profile Definition including connections within the ADSL network, connections within the core network, association of core connection groupings with the relevant Multiplexer (MUX).
- 2. View ADSL model using object attributes.
- 3. Audit ADSL Network.

- 4. Capacity Thresholding.
- 5. List incomplete Service Provisions.
- 6. Report Planning Failure Exceptions.
- 7. Support for automated core VP build.
- 8. Configure Service on request from SSD.

OBOE - (One BT Oracle Enterprise)

OBOE is used by all BT UK employees as well as all UK people procuring and selected international units. It is also used by the Shared Service Centre staff to enter invoice information and support the system on behalf of BT.

OBOE consists of the following business functions:-

- Fixed Assets List of items owned by BT that are seen as being of value to the business or that need to be tracked for future reporting requirements
- General Ledger Collating of financial reporting information into one consolidated view for BT UK
- iBuy The online procurement entry and approval process that provides BT UK users with their core procurement tool for purchasing items and services external to BT
- iExpenses The online expenses entry and approval system for UK employees
- Project Accounting Providing the ability to the business to analyse revenue and costs for a defined piece of work or activity

ORBIT - (Openreach Business Information Toolset)

To comply with the Telecoms Strategic Review (TSR), Openreach has developed a data warehouse to capture and store management information and this warehouse is called ORBIT.

The ORBIT data warehouse is the Key stone in the Openreach Management Information System (MIS) strategy. It performs the task of the central data store and information repository, holding both granular and aggregated data together with measures and business metrics.

Peacemaker

This Suite of programmes giving radio planners sophisticated tools to aid the design of radio links. Can produce terrain maps & radio path profiles. It will also identify if a path is workable & free from frequency interference.

PCNBS (Private Circuit New Billing System)

PCNBS provides functionality to set up different types of contracts on private circuits through either PCNBS GUI or through the feed coming through COSMOSS. System is used to monitor and manage customer accounts, accept orders and process billing.

PIPeR - (Physical Inventory Planning E-Records)

PIPeR supports the Planning & Recording communities within the Openreach organisation. It holds all Openreach external inventories, and supports planning of all new fibre and copper plant items.

It enables the Planning teams to plan and issue the work out to the build agents and enables the Recording teams to accurately and efficiently record changes to the network electronically.

PIRM - (Power Inventory of Routine Manager)

The Power Inventory and Routines Manager (PIRM) system is a web-based system developed by MBT to give a high level of control in the management of power equipment within the BT core network. Authorized users can input the details of different types of power equipment to be installed into PIRM. Using this information the installer installs the equipment and notifies the Local PIRM Officer (LPO) to activate the routines for the equipment once it has been commissioned. PIRM will then support the maintenance activity within the core network.

Each type of equipment will have routines defined for it, which PIRM will automatically schedule, based on its routine periodicity. Once activated, the scheduled tasks are then automatically created using the interface between PiRM and Virtual Work Manager for allocation of the appropriate time to the assigned maintenance technician and when status of the job is updated by the technicians, same status gets reflected in the PIRM.

PIRM functions are used in tracking items of equipment throughout their life cycle, e.g. when a rectifier 160 is removed for repair and replaced in a different location, it is shown at its new location in PIRM.

Powerhouse

Powerhouse is BT's product volumes Data Warehouse. It has been designed as a solution for provision, from a single source, of timely and accurate information regarding the installed base of BT products – primarily for BT Retail. It is a front-end query tool that interrogates raw data from other systems such as Call Statistics Centralisation System (CSCS), Private Circuits New Billing System (PCNBS) and Central Database System (CDS). Data stored in the warehouse enables web based reporting & analysis on Income, revenue and related product volumes (e.g. calls, lines, inbound services, data network services).

Redcare BOPS - (Billing and Order Processing System)

BOPS is BT's Redcare customer order management, billing and Order Processing System, a bespoke oracle database. Service Desk support is required due to the migration of this work from the BT Redcare.

REFINE - (Regulatory Finance Information Environment)

REFINE supports the regulatory reporting requirements of the business, providing Accounting Separation (AS) results and analysis that form the basis of the regulatory financial statements (RFS).

BT has now replaced REFINE with the CostPerform system for regulatory financial reporting, but still accesses data from the REFINE system for use in providing Ofcom with historical information.

RIDE2 - (Recorded Information Distribution Equipment)

RIDE2 is a mass call termination platform playing pre-recorded announcements and capturing voice messages and data. The platform provides a wide range of services largely focused on the calls market and is a key component of BT's mass calling (televote) solution. Crucially it takes the call termination load off the voice network (PSTN and SDIN).

The BT People System

The BT People System gives the BT People the ability to manage their personal and their team information through a multi-purpose web application. The system gives BT employees the opportunity to access people related information and processes any time they need to.

TITAN - (The Inter-business Transfer Charging and Agreement Network)

TITAN is the BT business-wide system for processing inter-business charges. It is an Oracle Financials package that has been customised to meet the requirements of the business. It allows for a consistent and controlled approach throughout the business in order to eliminate discrepancies and misbalances and to enable a business-wide net settlement of debts and balance agreement. It is BT Group Finance policy that all inter-business bills are processed via TITAN and as such it is mandatory for all BT Core units, self-accounting units and subsidiaries.

3.4 Other data sources

Below is a list of additional data sources used in the production of the RFS that are not classified on the 'EDR' system:

- 1996 Absolute Duct Study (ADS):
 - The ADS was a point in time study of the duct within the network using a sample of 384 of the 5,586 exchange areas
- BT Group insurance policies
- Employee Broadband take-up volumes
- Featurenet (part of Powerhouse):
 - Provides volumes of customers with Featurenet call facilities
- Fixed asset register:
 - A list of assets, including location/description/GBV/accumulated depreciation
- Forecast future use of Comingling Space:

Based on an analysis of a 5 year forecast provided by communication providers, last updated in 2012-13

- Full year Platform level Contract Support costs (Provided by BT Technology)
- Inland and International Directory Assistance
- IX Vols / Prices from BT Enterprise Interconnect Revenue and related Pay Costs
- LEMP (Local Exchange Modernisation Program) Contract:

Provides the cost of digital local exchanges and concentrator units

LOPLIST:

Contains information on the life of fixed assets

• Oracle Business Intelligence (OBI) Reports:

Oracle application used for transaction reporting

PACS:

Volumes for transmission (SDH) equipment

• Workmanager:

Volume of field engineer jobs and hours booked

3.5 21CN volumes and capital

Volumes for 21CN apportionments are based on average volumes across the year by service, sourced as follows:

GVF for Calls. The volume of calls crossing the 21CN network is very small, limited to the Pathfinder trial in Cardiff, Voice over FTTP and SIP Trunking. The Pathfinder trial volumes are assumed to be 65,000 end users as no detailed source data is available for the trial. Voice over FTTP and SIP Trunking are sourced from the GVF. It is assumed that all Pathfinder, Voice over FTTP and SIP Trunking use call origination/termination. Due to immateriality and a lack of available information on the small usage of 21CN by voice, the bandwidth per end user inputs are not updated annually.

GVF and WELF for copper and fibre WBA. The total copper and fibre WBC customers are sourced directly from the GVF, but the system does not hold an accurate split of customers by those using WBC, WBMC dedicated, WBMC shared or the Market B VPN services so overlays to the system are used to align the customers of each type of WBC service to management's knowledge by customer. The first overlay is to reclassify internal customers between WBC, WBMC shared and WBMC dedicated where GVF does not correctly classify the downstream CFU. The second overlay is to move customers from WBMC dedicated to the Market B VPN service, which is not recorded separately within GVF but uses different network architecture. A management assumption is therefore made as to how many customers use the VPN solution rather than WBMC dedicated. Both of these overlays relate to copper and fibre, and are taken from the Platform status report issued daily by the BT Platform team. The bandwidth per end user volumes are management assumptions sourced from WELF that are reconciled back to the GVF to ensure it is materially consistent.

TV Connect total channel bandwidth is sourced from product management billing data. This is then assumed to be multicast across every core to core, core to metro and backhaul route simultaneously. All core to core and metro to core routes are dual plane resilient links so it is assumed that the bandwidth is transmitted twice over these links. The total TVC multicast bandwidth is 647,385 Mbps.

For HE/MEAs the circuits are sourced from GVF, and the bandwidth per end user is calculated using network management data based on the number of bandwidth and circuit ends, location and status data of circuit orders to provide the etherways and the class of service for the Etherflows. For 10Mbps, 100Mbps and 1Gbit/s Harmonised Ethernet services, the bandwidth at each site is the lower of the Etherway speed per site multiplied by number of etherways or the recorded bandwidth per site. For 10Gbit/s services, the larger of these two values is used. The total bandwidth is divided by the Etherway count across all sites to provide the bandwidth per end user.

For MEAs, the Etherways bandwidth data is taken from circuit inventory data this looks at the currently deployed Etherway and associated Etherflows which then divides the total Etherflow bandwidth by the total number of connections to give an average bandwidth per connection for each speed (100Mbps, 1Gbit/s and 10Gbit/s).

For the Ethernet - MEAS (MNOs) 1Gbit/s fibre service, not all circuits use the 21CN backhaul and 21CN core networks so the GVF circuit count is reduced by 23% based on management data.

MSIL product management data is used to reflect the number 10Gbit/s MSILs in the 21CN. WCR then provides a count of 1Gbit/s and 10Gbit/s MSILs, as well as a number of unidentified MSILs. The product management volume is used for 10Gbit/s, with the balance of unidentified MSILs from the WCR data assumed to be 1Gbit/s. This provides an assumption that there are 213 1Gbit/s MSILs and 580 10Gbit/s MSILs.

EBD volumes are sourced from GVF.

Core to Core and Metro to Core 10Gbit/s Dedicated Links are sourced from Next Generation Capacity Planning Team. Actual number of Core to Core and Metro to Core 10 Gbit/s in use as of March 2016.

Each individual Plant Group description states which of the above systems are used for the volume inputs to apportion the cost of that Plant Group.

Capital inputs for 21CN are sourced as follows:

Capital analysis from BT Technology and asset lives from the LOPLIST are used to model the expected depreciation of 21CN assets, which is reconciled in total to the LOPLIST's depreciation.

The capital analysis is prepared by sourcing the volumes of individual pieces of 21CN equipment, and the relevant prices that the equipment was purchased at each year.

The equipment is grouped into classes of work based on where the equipment is located in the network. The cost of the equipment purchased each year is then modelled into depreciation by using the asset lives, as per the LOPLIST, for each class of work

This depreciation is then reconciled in total to the LOPLIST depreciation for all 21CN classes of work before it is used as an input to the 21CN model. Variances in reconciliation at class of work level however will be expected for various reasons, including simplified depreciation modelling used for the 21CN apportionments (where all capital is assumed to be purchased at mid-year), lack of granularity of LOPLIST indirect capex or any mis-bookings by class of work. Variances exist for ETHER, MSAN and METRO class of work, but there net off at a total depreciation level.

Annex 4 Electricity price reporting

4.1 Direction

As part of Ofcom's Directions for Regulatory Financial Reporting (28 March 2018) we have been directed to set out and explain our methodology for setting the electricity charges, including a clear description on the individual elements within the charge, how they are calculated and how they are passed through into the per kWh charge end users.

We also provide the date on which the latest annual contractual price was struck and an aggregate split of the individual elements in a non-confidential format.

We provide to Ofcom separately additional information that facilitates Ofcom's monitoring of our compliance with the basis of charges obligation for electricity.

4.2 BT electricity charge calculation

The cost components of the energy price are:

- Raw power;
- Sub meter operation and maintenance; and
- PSTN lines to carry meter data.

Raw power - this is the fixed cost of BT's energy for a certain year described as per kWh units.

• The raw power cost is passed through based on forecast unit cost with no markup. BT has a flex electricity contract, and its hedging policy on commodity aims to deliver certainty ahead of the financial year of delivery without compromising value. Whilst a majority of BT's commodity exposure is covered ahead of a financial year, varying minor levels of exposure may be maintained to help drive value. Additional non-commodity components of the raw power cost, such as Contracts for Difference, are paid as pass through and therefore remain subject to price volatility. The total electricity volume forecast is based on regression analysis using multiple years of volume and temperature history.

Sub meter operation and maintenance and PSTN lines – this is the cost of the meter and PSTN line hardware used to read and record BT's electricity charge, transfer meter data across the network so that meters can be read remotely, and also includes the cost of maintaining this equipment.

• The majority of points of presence (POPs) have sub meters and a PSTN line to carry meter data. The PSTN lines are charged at the published price of a WLR line. The cost to Openreach for the sub meter operation and maintenance is marked up appropriately to cover related costs.

The total charges for the raw power, telephone lines, cost of sub meter operation and maintenance and mark up on sub meter operation and maintenance are aggregated and divided by the total units of power consumed to determine the unit price of power for the relevant year (i.e. cost per kWh).

4.3 Contract information and breakdown

The contractual supply for our electricity was agreed for the period 1 October 2016 to 30 September 2021. The 2016-17 aggregate split of the individual elements of the electricity charge is as follows. For commercial reasons this information is provided in percentage terms only:

%Cost	Cost component Cost cost component Cost cost cost cost cost cost cost cost c
90 - 100%	Cost of raw power
0 - 5%	Cost of line rental
0 - 5%	Cost of meter operation and maintenance (including mark-up)
100%	Total cost of power for 2016-17

4.4 Cost attribution process for LLU related electricity costs

The electricity charge follows the following path of attribution. The methodologies employed to attribute the costs can be seen in the relevant dictionary for the level of attribution.

Base level (other and OUC driven)

ELECT1 attributes costs of raw power onwards to PG120B (LLU Electricity Usage – OR)

Plant Group level

Costs attributed to PG120B (LLU Electricity Usage – OR) are onwards allocated to a dedicated component CL120 (LLU Electricity Usage – OR).

Component level

Costs allocated to CL120 (LLU Electricity Usage – OR) are onwards allocated to a dedicated service SL120 (LLU Electricity Usage External). Note that for commercial sensitivity reasons we do not separately report this service in the RFS.

Annex 5 Detailed valuation methodology bibliography

Report to HM Treasury (1986) "Accounting for Economic Costs and Changing Prices".

The handbook "Accounting for the effects of changing prices", published in 1986 by the Accounting Standards Committee.

"Current Cost Accounting - An Introduction to SSAP 16", published in 1981 by the Certified Accountants Educational Trust.

Report of the Inflation Accounting Committee – presented to Parliament by the Chancellor of the Exchequer and the Secretary of State for Trade by Command of Her Majesty - September 1975.

"Inflation Accounting - An introduction to the debate", 1983, Professor Geoffrey Whittington.

Annex 6 Studies and data sources in current cost accounting valuations

The following studies and data sources are utilised in the preparation of the CCA Valuations as described in Section 5.

EXPRES - Exchange Planning & Review System

Used for valuing Local Exchange Switches (LDX only).

This is a database holding information on Local Exchange & Main Exchange with details of units in service with current capacities and ordering information. It is used to provide connections data for models used in AS, CCA and LRIC.

INS - Integrated Network System

Inventory database for BT's PDH circuits and cabling for PDH

NRS - Network Recording System

Used for valuing Local Exchange Switches (LDX only).

This is a system that holds details of all BT PSTN network 2Mb port terminations. It allows any system between two switches to be queried and displayed, showing the switch termination details at each end. NRS allows switch port terminations to be allocated/de-allocated for the introduction/cessation of routes or systems on a route. NRS obtains a download of switch data for each switch. This switch data is downloaded on a regular basis (monthly) and any route/system changes entered on the system are validated against the switch data.

Office for National Statistics (ONS)

We use several of the ONS indices in our Indexation and Absolute Methodologies:

• ONS Producer Price Indices (PPI)

http://ons.gov.uk/ons/taxonomy/index.html?nscl=Producer+Price+Indices

RPI

http://www.ons.gov.uk/ons/datasets-and-tables/dataselector.html?cdid=CHAW&dataset=mm23&table-id=2.1

• Average Earnings

http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Earnings

Consumer Price Index (CPI)

https://www.ons.gov.uk/economy/inflationandpriceindices/timeseries/d7bt/mm23

Annex 7 Indices and trends used in current cost accounting

The following tables show the indices and trends that are used to derive valuations for those assets using the indexed historic methodology.

TABLE 1: Indices used for Indexed Historic methodologies

Asset	CoW	Indices used with sources
Specialised Accommodation Assets	ACPN	 (a) Heating and air conditioning units - ONS index: Nondomestic Cooling & Ventilation Equipment (ONS reference: Producer Price Index 2825000000) (b) Internal building work - valued at historical cost (c) Capitalised planning costs - ONS index: Average Earnings amended for productivity improvements of 2% per annum (d) All other assets - ONS index: Electrical Lighting Equipment (ONS reference: Producer Price Index 2740000000)
Backhaul and Core Fibre	CJF	Physical assets – CPI and capitalised planning costs - AVE2
Distribution-side Copper Cable	LDC	Physical assets & capitalised planning costs – RPI
Exchange-side Copper Cable	LMC	Physical assets & capitalised planning costs - RPI
Dropwires	NWR NWB	Physical assets & capitalised planning costs – RPI
Duct	LDD	Physical assets & capitalised planning costs – RPI
Back-up Power Equipment	TPC	(a) Standby generators – ONS index: Electric Motors, Generators & Transformers (reference Purchasing Price Index 2711000000)
		(b) Capitalised planning costs – ONS index: Average Earnings amended for productivity improvements of 2% per annum
		Other Assets – ONS index: Wiring Devices (reference: Purchasing Price Index 2733000000)

TABLE 2: Indices used within the absolute valuation methodologies

Asset	CoW	Indices used with sources
System X Local Exchanges	LDX	 (a) In original absolute valuation we used a bespoke index to apply to the 2000 LEMP 2 contract and to non-capacity related expenditure. This was constructed from the following elements: Equipment and installation – based on changes to contract prices BT Labour – ONS index: average earnings Software – bespoke BT index consisting of changes in contract prices, average earnings and the ONS index: Electric Lighting Equipment (ONS reference: Producer Price Index 2740000000) We extrapolated the 2008/09 valuation using this same index

Annex 8 F8 Code Markers

8.1. Finance Types

F8 codes can be categorised by their characteristics into groupings referred to as Finance Types. One Finance Type marking is applied to all F8 codes.

The Finance Types used are as follows:

Finance Type Code	Finance Type Description
В	Pay
С	Creditors
D	Stores
Е	CCA Depreciation ADJs P&L
F	Depreciation Charge P&L
G	T&S
Н	Other
I	Amortisation charge (intangible assets)
К	Debtors
L	Transfer Charges In
М	Transfer Charges Out
N	CCA Gross Other ADJs P&L
0	Registered GBV BS
Р	Accumulated Depreciation BS
Q	AICC Opening Balance BS
R	AICC Registrations
S	CCA Gross THG BS
Т	CCA Uplift HCAD to CCAD BS
u	Unclassified
W	CCA Uplift GBV to GRC BS
Υ	CCA Gross Price Var P&L

8.2. Transaction Types

F8 codes can be categorised by their characteristics into groupings referred to as Transaction Types. One Transaction Type marking is applied to all F8 codes.

The Transaction Types used are as follows:

Transaction Type Code	Transaction Type Description
Α	Income
С	Costs in Operating Profit
D	Other AS Costs
F	Costs Excluded from AS
G	Capital Spend
J	Balance Sheet Included in AS return
К	Balance Sheet Excluded in AS return

8.3. Summary Types

F8 codes can be categorised by their characteristics into groupings referred to as Summary Types. One Summary Type marking is applied to all F8 codes.

The Summary Types used are as follows:

Transaction Type Code	Transaction Type Description
CA	Current Assets
CL	Current Liabilities & Provisions
EO	Current Other
EP	Current Pay
FA	Fixed Assets
FU	Funding
IE	Income External
II	Income Internal
ТО	Intragroup Expenditure In/Out
TP	Intragroup Pay
TX	Intragroup Exp (VCT OUT - Internal Rev)
uu	Unclassified

Annex 9 Detailed Attribution Tables

A separate Annex (Annex 9) published on our website shows:

- All material direct allocations;
- The linkages of all detailed valuation methodology asset categories to their associated activity groups and plant groups, and the sectors into which they have been categorised;
- The key destinations of each of the system generated other bases, activity group bases and plant group bases.