



BT's innovation timeline

- 1837** William Fothergill Cooke and Professor Charles Wheatstone demonstrate, and patent, the world's first successful electric telegraph between Euston and Camden.
- 1846** The Electric Telegraph Company is founded by William Fothergill Cooke and John Lewis Ricardo to work the patents of Cooke and Wheatstone. The first electric telegraph company in Britain, the ETC lays the first national communications network in the world.
- 1851** The world's first successful submarine cable is laid between the UK and France by the Submarine Telegraph Company.
- 1878** The Telephone Company is founded to market Alexander Graham Bell's patented telephone, the first telephone company in the UK.
- 1880** The Post Office wins a landmark legal action against the Edison Telephone Company for infringing the Post Office's telegraph monopoly. Telephone companies needed licences from the Post Office until The Telephone Act, 1951.
- 1891** The Post Office lays the first submarine telephone cable between the UK and France, one of the first transnational long-distance links and enabling telephone calls between London and Paris.
- 1896** The Post Office hosts the first successful demonstration of 'telegraphy without wires'. Guglielmo Marconi successfully transmits a message from the roof of the Central Telegraph Office in London (now the site of BT's headquarters) to a receiver on the roof of GPO South in Carter Lane 300 yards away.
- Engineer in chief, William Preece, was mentor to Marconi and in August, the Post Office permits Marconi to experiment with wireless apparatus on Salisbury plain and other places, and gave him financial backing.
- 1912** The first experimental public automatic telephone exchange installed in the UK opens for service at Epsom, Surrey.
- 1926** The Post Office and Bell Laboratories engineer the world's first two-way transatlantic telephone conversation (by radio) via Rugby Radio Station (brought into service 1 January 1926 as the world's most powerful transmitter using thermionic valves). We open a commercial radio telephone service across the Atlantic on 7 January 1927.
- 1936** The iconic K6 red telephone box designed by Giles Gilbert Scott is introduced nationwide to commemorate the silver jubilee of King George VI.
- 1937** The world's first single number emergency service contact is introduced – 999.
- 1943** The world's first programmable computer (Colossus) was designed and constructed by Post Office research engineers headed by Tommy Flowers was designed and built at Dollis Park Research Station, North London. It was then dismantled and re-built at Bletchley Park for wartime code-breaking.



- 1948** Post Office scientists help develop and then produce the first hearing aid to be generally available to all on the newly launched National Health Service. The Medresco hearing aid (named after the Medical Research Council, which held an inquiry into hearing aid design and cost as the government made plans for the new health service) worked on the same principles as a telephone, with amplified sound feeding straight into the ear.
- 1948** Post Office Telecommunications build the infrastructure for the Olympic Games in London enabling them to be the first Games televised in the UK.
- 1956** The first transatlantic telephone cable (TAT 1) is laid incorporating new Post Office technology such as the two way repeaters. Post Office cables ship HMTS Monarch participated in the lay.
- 1958** Subscriber Trunk Dialling (STD) is inaugurated by HM Queen at Bristol, enabling customers to make long distance calls automatically without the need for an operator.
- 1962** The new Post Office Satellite Earth Station takes part in the first transatlantic television transmission made via an artificial satellite – Telstar. (The world's first telephone call by satellite is also made via Telstar, from London to New York.)
The station uses a British-designed dish-type aerial which is the first of its type but which was later adopted throughout the world for satellite communications.
- 1965** The Post Office Tower (now the BT Tower) opens in London, the hub of a microwave radio network to meet increased demand for the telephone and television broadcasting.
- 1966** Europe's first fully operational electronic exchange (and world's first small to medium size electronic exchange) opens at Ambergate, Derbyshire.
- 1968** The Post Office launches the world's first digital exchange at Empress Exchange. West Kensington in London.
- 1968** Two Post Office Telecommunications research engineers, George R Newns (1936-) and Keith J Beales (1940-) develop the process for developing and producing glass pure enough to be of practical use in optical fibre cables.
- 1969** Post Office Satellite Earth Station relays radio and television transmissions from NASA to the whole of Europe, including coverage of the first manned landing on the moon.
- 1979** Post Office Telecommunications launches Prestel, the world's first viewdata network and a precursor to the Internet.
- 1980** Post Office Telecommunications lay the world's first purpose-designed optical fibre submarine cable in Loch Lyne, Scotland. In the same year we brought the first operational optical fibre link into service in the network in the West Midlands.
- 1981** British Telecom opened the first modern (System X) digital exchange for operational service in the UK at Woodbridge, Suffolk.
- 1986** British Telecom opens (jointly with KDD) the world's first all-digital international public telephone service, between London and Tokyo.
- 1986** British Telecom's Cable Ship Alert completes laying the world's first international submarine optical fibre cable, UK-Belgium 5.
- 1987** The world's first instantaneous translation of speech by computer is unveiled by British Telecom's research laboratories at Martlesham Heath, Ipswich.



- 1990** British Telecom's long distance network becomes entirely digital, the first such major transition in the world.
- 1994** BT launches BTnet, an internet service for business customers. (BT Internet, its mass-market Internet service for residential and small business customers was launched in 1996.)
- 1995** The last Strowger based electro-mechanical exchanges are converted to digital working at Crawford, Crawfordjohn and Elvanfoot, (all in Scotland).
- 1997** BT patents SmartQuill including computer augmentation similar to technology today used in iPhone and iPads.
- 1998** BT's network becomes completely digital with the conversion of the electronic exchange at Selby, North Yorkshire.
- 1999** BT Cellnet is the world's first mobile network to make a live data call via GPRS.
- 2002** BT introduces the world's first hybrid Next Generation Switch, the first step in the development of the BT 21st Century network.