Case study

NATO Summit Wales 2014

Appointing an expert international event communications team

When there's a major show in town it pays to plan ahead. If that show happens to bring together 60 world leaders to discuss today's geopolitical issues, appointing communications professionals with tried and tested track records is a wise precaution.

Sarah Billson, deputy commercial director at the Foreign & Commonwealth Office, faced that exact situation when NATO Summit Wales 2014 came to Celtic Manor. With 4,000 delegates and 1,500 reporters demanding security and resilience of the highest order – and only six weeks to bring it all together – at Sarah's request a top-flight BT team was assembled.

People attending the NATO Summit Wales 2014 probably never even thought to ask what made their telecoms 100 per cent secure and fully available at all times. And that's actually how it should be.

" Working in partnership with the Foreign & Commonwealth Office, Celtic Manor and a host of other suppliers, the BT team performed as a single unit. Displaying great speed and agility, I'm very proud of the can-do attitude adopted by our people, even though some of the last-minute requirements were clearly going to be tall orders."

John Whitworth, COO, Global Government and Health, BT Global Services

BT

"BT worked extremely hard and long hours to deliver the secure core infrastructure required for the event."

Russell Phillips, Vice President, Facilities, Celtic Manor

BT provides peerless secure communications for international political event

Services of the highest order

NATO Summit Wales 2014 was hosted by the UK government at the Celtic Manor Resort in Newport. There, leaders from 60 countries – including President Obama, Chancellor Merkel, President Hollande and Prime Minister Cameron – discussed pressing geopolitical issues.

BT was chosen to provide the communications network services that would serve 4,000 delegates and 1,500 reporters from the global media. Security and resilience had to be of the highest order. Ann Beynon, director for Wales at BT Group, says: "It was a great privilege to be entrusted with this high-profile project. Welsh government ministers were among those who expressed their gratitude."

Responsiveness to last-minute demands

BT has an unblemished track record in major event communications projects. Recent examples include the G8 conference in Northern Ireland, the Commonwealth Games in Scotland, the Nuclear Security Summit in the Netherlands, and the London 2012 Olympic and Paralympic Games.

Steve Benton, the BT Global Services Programme Management Office director, says: "For NATO Summit Wales 2014 we had six weeks to provide a complex mix of services with normal lead times of three months or more. That meant assembling a multi-disciplinary, cross-functional team from right across BT." That taskforce involved around fifty-five BT engineers; security vetted for such a sensitive project.

Almost inevitably with events of this type requirements can be very fluid, altering as the programme evolves. NATO Summit Wales 2014 was no exception. For example, for the BT Internet Connect service, an extra 2-kilometre diversely-routed optical fibre was incorporated for load balancing and resilience. That provided aggregate 2Gbps internet bandwidth. And an additional 4.6 kilometre 1,000-pair copper cable was ordered for extra voice capacity and robustness. These additions required Openreach (a BT subsidiary company) to get permission to install new ducts.

Russell Phillips, vice president for facilities at Celtic Manor, says: "The BT team was highly professional throughout the whole process, attending regular site meetings at very short notice as requirements changed."

Voice and collaborative technologies

The 350 telephone lines provided by BT incorporated some sixty-five ISDN channels. Extensive onsite cabling to deliver those services included some sensitively concealed in the Celtic Manor fabric to supplement existing infrastructure. "The BT team worked closely with the resort to make sure there was minimal impact during the build up to the event and the de-rig," recalls Russell Phillips.

Temporary sites including marquees and other pop-up accommodation in the Celtic Manor car parks and grounds were also served.

For ad hoc short-term video conferencing requirements, ISDN lines were aggregated to achieve the bandwidth for high-fidelity, high-definition sound and vision. Hunt groups were set up for functions like per-country help desks, the NATO conference staff's front desk, and support teams for large country delegations.

Not only providing communications at and within Celtic Manor, BT also supplied voice and data services for embassies requiring facilities for their delegates staying nearby and in support of social activities. Venues included Cardiff Castle and Cardiff University as well as HMS Duncan moored in Cardiff Bay.

Detection of and defence against cyber threats

These days it's inevitable that such a high profile event will attract internet-borne attacks, and comprehensive BT-supplied services were deployed to provide a strong protective shield.

At the outermost layer, the BT Internet Connect router configurations included distributed denial of service (DDoS) protection as part of the BT Assure managed service wrap. Recognising the signature of rogue incoming message storms designed to saturate and overload systems, the DDoS service stopped them in their tracks at the network boundary. This DDoS capability is delivered by a BT Assure expert team with many years' experience in this specialised field.

Invaluable support was provided by Palo Alto hardware, software and professional services. An enterprise security platform using a pair of high-capacity devices helped enable network and application-level security through granular control and prevention of known and unknown threats for all users on various devices across the network.

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Russell Phillips, Vice President, Facilities, Celtic Manor

The BT Cyber Defence Operations (CDO) team ran the security element of the BT support to the conference. This involved providing protection against distributed denial of service (DDoS) attacks from the internet, management of the Palo Alto platform, and feeding situational intelligence to the BT teams and the Foreign & Commonwealth Office.

Three BT CDO security officers working onsite were supported by remote experts at the BT Security Operations Centre in Sevenoaks, providing 24-hour cover. Operational from well before the event, these arrangements continued during and shortly afterwards. "There were some attempts to bring the network down, but malicious intent was detected and defended in every case," says Steve Benton. "The network stood firm and was unaffected."

Comprehensive business continuity provisions

Prior to the event, BT Technology, Service and Operations (TSO) ran a comprehensive pre-emptive service protection programme. This verified, for example, alarm-free local network infrastructure and adequacy of spares holdings. At the same time standby power was tested and additional emergency generators delivered.

As well as the resilience conferred by the additional 1,000-pair cable, voice services had comprehensive disaster recovery capabilities built-in. Brian Solomons, a consultant from BT TSO, says: "To protect telecoms services a business continuity architecture was designed, parented on three local exchanges. Although this wasn't used, it was stress tested prior to the summit to offer vital peace of mind."

A pan-BT service assurance command and control organisation ensured that any service affecting issues would have been dealt with promptly. Other precautions included enhanced network monitoring and call-out arrangements implemented by BT TSO. Again, in the event, these measures did not need to be brought into action.

Throughout NATO Summit Wales 2014, BT provided comprehensive onsite support, working closely with Celtic Manor and the Foreign & Commonwealth Office to ensure excellent service levels. That the infrastructure delivered everything required with 100 per cent availability showed the competence of BT in an event of supra-national importance. Russell Phillips sums up: "BT worked extremely hard and long hours to deliver the secure core infrastructure required for the event."

Core services

- BT Internet Connect UK with dual diverse resilient pathways, and routers running DDoS protection

- BT Assure unified threat management platform using Palo Alto Next-Generation Firewalls with WildFire™ protection against apps-borne malware, zero-day exploits and other advanced attacks

- BT One business exchange lines and onsite cabling services

BT

Offices worldwide