



London 2012 and the most advanced network infrastructure in Olympic history



March 2011

This is a test to see if it works

Cisco's Borderless Network allows the London 2012 Organising Committee of the Olympic and Paralympic Games (LOCOG) to interact with audiences across the globe, through multiple devices, securely, reliably and seamlessly.



Photograph supplied by London 2012

CUSTOMER PROFILE

LOCOG is responsible for preparing and staging the London 2012 Olympic and Paralympic Games. This incorporates events at the purpose-built Olympic Park, across London and at another nine venues around the UK.

Overseeing the planning and development of London 2012, LOCOG was officially established after London was awarded the Games in 2005, leaving just seven years to deliver the best possible Olympics experience and leave a lasting legacy.

As well as staging the 2012 Games, LOCOG is also responsible for organising a series of test events in the year before the Games, recruiting and training volunteers, and overseeing the four year cultural Olympiad leading up to the Games.



EXECUTIVE SUMMARY

CUSTOMER NAME

- London Organising Committee of the Olympic and Paralympic Games (LOCOG)

LOCATION

- London, United Kingdom, with a global reach

INDUSTRY

- Sports & Live Events

COMPANY SIZE

- By the time the Games go live in 2012 there will be approximately 6,000 staff and 70,000 Games Makers

BUSINESS CHALLENGE

- Timeline that is immovable in preparation for the Games
- New organisation requires infrastructure installation from the ground up
- No room for error or delay in data transfer relating to the Games

NETWORK SOLUTION

- A new Games' network deployed across nearly 100 different locations across the UK
- An additional Administration and Services network for LOCOG staff
- Switching, routing, email management, planning portals, wireless access and IP telephony
- Rigorous testing to ensure stability and reliability between deployment and the Games

BUSINESS VALUE

- Collaborative working and seamless connectivity for LOCOG with its stakeholders including employees, broadcasters, sponsors and spectators
- Secure, resilient and robust performance for London 2012 under the global media spotlight



The Games attracts a truly global audience, meaning that everything LOCOG does is scrutinised the world over, which affects the perception of all stakeholders including athletes, officials, sponsors, spectators, Londoners and Government.

BUSINESS CHALLENGE

LOCOG's biggest challenge as it prepares for 2012 lies in one fixed date, 27 July 2012. On that day the Games will officially open, providing a clear and immovable deadline for LOCOG and its partners. As Official Network Infrastructure Provider for London 2012, Cisco has to play its part to ensure that every aspect of the Games is ready. Most importantly, under the scrutiny of the world's media, every aspect of the Games must be right.

According to Gerry Pennell, CIO for LOCOG and the man responsible for delivering the technology that powers the Games, the mission critical role for London 2012 is, "The measurement of athletic performance, as well as the transmission of those results to a wide range of different audiences." LOCOG has to ensure that all data is made accurately and readily available for a multitude of diverse channels, all with distinct delivery requirements, including live scoreboards, results for media, Olympic venue information systems, TV graphics for broadcasters, affiliated websites, international federations and many, many more. That data must then be aggregated from source and carried across the backhaul networking equipment managed by Cisco to a number of different multifaceted destinations.

With almost 100 locations to coordinate and around 90 other task-specific applications required to support both the event and LOCOG as a business, the biggest pressure comes from the sheer profile of London 2012. The Games attracts a truly global audience, meaning that everything LOCOG does is scrutinised the world over, which affects the perception of all stakeholders including athletes, officials, sponsors, spectators, Londoners and Government.

As a new organisation, LOCOG was faced with a major initial challenge in addition to hosting the largest sporting event in the world. Prior to its establishment there was no current operation from which to utilise existing infrastructure or draw on the experience and consultation of its stakeholders. As such, LOCOG required a different approach to the way it implemented infrastructure and systems.

LOCOG is supporting its own rapid expansion, going from being a very small company to a global enterprise in just seven years. Sharing its offices with the Olympic Delivery Authority (ODA) in Canary Wharf, by the time of the 2012 Opening Ceremony around 100,000 people will be working for LOCOG on the Games – including 6,000 staff and around 70,000 volunteers.



INDEX OF VENUES OUTSIDE LONDON

- A** Lee Valley White Water Centre – Canoe Slalom
- B** Eton Dorney – Rowing, Canoe, Sprint, Rowing
- C** Hampden Park – Football
- D** Millenium Stadium – Football
- E** Hadleigh Farm – Cycling (Mountain Bile)
- F** Old Trafford – Football
- G** St James' Park – Football
- H** Weymouth & Portland – Sailing, Sailing
- I** City of Coventry Stadium – Football

KEY

- Olympic Sport
- Paralympic Sport



NETWORK SOLUTION

Faced with a fixed timeline, Cisco was charged with working with LOCOG's other technology partners to deliver the IT, telecommunications, audio-visual, timing and scoring technology required to stage the Games and deliver results to a global audience. With more than 50 significant networks to manage in total, including a further 17 non-competition venues and an international broadcast and media centre that hosts 205 different nations' press and broadcast teams, Cisco has been integral to the design process of the overall network to ensure connectivity to both the 'Games' and 'Administration and Services' network that it is building at all venues.

Cisco's Borderless Network will provide a more advanced network infrastructure for London 2012 than at any previous Olympic Games, enabling a substantially greater capacity based on an anticipated increase in traffic demand. It constitutes a major step forward in the way technology enables, delivers and transforms the Games experience for its global audience.

Cisco has worked closely with the official communications services partner BT and scoring and timing systems provider Omega to develop a 'Games Network' in time for London 2012

that will connect all competition and event-critical sites. Cisco is supplying the routing, switching, firewall and IP telephony to almost 100 venues across the UK including:

- 34 competition venues across the UK from Manchester to Weymouth
- 20 further venues such as the Olympic Village and network operations centre
- 40-50 spectator and athlete sites including transport hubs, training grounds and ticketing booths

With a Borderless Network of this size security is one of the biggest considerations for Cisco, ensuring that it is completely secure and highly resilient when it comes to managing the network. Cisco is working with LOCOG to ensure robust security protocols at all levels, covering the distribution layer, core layer, access points, firewalls, load balancers and proxy servers and ensuring they are all logged properly.

Cisco has also deployed a second 'Administration and Services Network' to support LOCOG's business operations. The network runs exclusively across LOCOG's offices in Canary Wharf, managing email, planning portals, wireless access and IP telephony.



“Cisco has demonstrated that it is able to bring a combination of proven technology and skill to solve our network challenges. I am very confident that Cisco has all the key components we need for the Games, but also, and critically, the expertise to help us implement effectively.”

Gerry Pennell, CIO, London Organising Committee of the Olympic and Paralympic Games (LOCOG)

Cisco is closely interlinked in the testing process for London 2012, working with LOCOG through all testing between now and the Games. Gerry Pennell gave an idea of the size of the testing task at hand. “Testing is scheduled in three stages; one in summer 2011, one through the autumn thereafter and then one in spring 2012 around the Olympic Park, with more than a year’s work of fairly heavyweight operational testing in all.”

Between 50 and 60 days before the Games, LOCOG will conduct a week-long test event, simulating live sports and real problem scenarios to test both networks’ resilience and how they will handle the sports operations. “In all testing we will throw many more scenarios at ourselves than we would hope to meet at the Games themselves,” said Gerry Pennell.

There is no existing organisation to roll out the network or test it, so Cisco is helping LOCOG by creating a test network,

simulating the Olympics in a single room. Made up of lots of cells representing separate sports, LOCOG’s team will simulate the whole Olympic network, making sure all the technology operates appropriately before roll out to a wide area network.

The most important area for close scrutiny from LOCOG is the results process, from the venue results system to central systems and information systems to feed to the internet. Integration testing for the process started in November 2010, and will occupy more than 200,000 hours of testing well into 2011.

For Cisco, ensuring that the network is prepared to support the results process is about much more than just providing LOCOG with the necessary technology to deliver those results. It is about showcasing some of the many ways in which Cisco can help businesses transform themselves using Cisco technology.

For more details please visit
www.cisco.co.uk/london2012





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