

Optimal Communications for High-Profile Venue



The Convention Centre Dublin builds state-of-the-art communications and IT environment

EXECUTIVE SUMMARY

Customer Name: The Convention Centre Dublin

Industry: Hospitality

Location: Dublin, Ireland

Number of Employees: 250

Challenge

- Create state-of-the-art conference venue with built-in flexibility to handle different customer needs and simultaneous events

Solution

- Cisco Borderless Network providing secure wired and wireless infrastructure, and support for Cisco Unified Communications

Results

- Scalability to serve communications needs of 4,000 delegates per day
- Clients and exhibitors have greater choice of bandwidth and speeds
- Ease of communications improves delegates' focus and productivity

Challenge

The Convention Centre Dublin (The CCD) is a state-of-the-art venue that has quickly become one of Ireland's premier locations for conferences, business meetings and events, and an instant landmark in the heart of the Irish capital. Built as a greenfield development on the banks of the River Liffey, the centre is adjacent to the Dublin International Finance Centre, ideally placed to attract prominent enterprise customers.

With 22 meeting rooms under one roof, the stylish modern building is capable of hosting several different events at once. Visitors can attend separate meetings with different business aims and communications needs. Since opening its doors in September 2010, the centre has seen peak usage of around 4,000 people passing through in a single day.

To establish its credentials, especially in a period of financial uncertainty, The CCD had to be sure that its in-house communication facilities would make the delegate experience inside the building a match for its sleek architecture and prominent location.

It needed a resilient, highly-available network, capable of being simply and securely partitioned into several virtual private networks (VPNs) to serve multiple groups of simultaneous users. Ample broadband capacity, both wired and wireless, was essential, and it was also considered vital to build in the flexibility to cater for any communications options that might be requested by customers.

Bids were invited from several vendors for deployment of a complete solution. Bidders included two of the country's foremost telecommunications operators, both of which were involved in bringing the project to fruition. In a clear indication of Cisco's standing as today's market leader, most of the companies involved in the tender built their proposals around [Cisco Borderless Network](#) architecture.

Robert Henderson, IT Manager at The CCD, explains: "I've had years of experience with Cisco, so I'm familiar with what a Cisco Borderless network infrastructure can do. Cisco has a very impressive array of equipment and services that we can utilize in many aspects of our business."



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ICT Operations Manager
The Convention Centre Dublin

Solution

Cisco Borderless Network architecture provides a proven foundation that connects anyone, anywhere, on any device, at any time—securely, reliably, and seamlessly. This was a key factor in the centre’s role to act as a micro-service provider. That means offering bandwidth, voice, and Internet connectivity throughout the building, enabling users to take advantage of the wider shift to bring-your-own-device (BYOD) or to depend on the multi-functional capabilities of advanced equipment installed at the building.

The CCD has two communications control rooms, which function like mini-data centres, housed in different parts of the building. These are linked to the meeting rooms on separate fibre networks for full redundancy. The configuration enables instant failover if anything goes wrong, ensuring that meetings can carry on without interruption.

The control rooms are built on Cisco Catalyst 6500 Series Switches, each protected by a Cisco Adaptive Security Appliance, with Catalyst 3750 Series and 2800 Series Switches to the edge. VLANs provide customers with graduated connection speeds. The centre can thus offer broadband access bandwidth ranging from just 1Mbps right up to 100Mbps depending on customer need.

The failover system ensures seamless continuity of customer access by switching automatically to the back-up network, while plug-in points in the main exhibition areas make it a simple matter to provision exhibitor stands with bandwidth. A Cisco Content Services Switch is used to issue private IP addresses to individuals on the internal network.

Voice services are controlled by Cisco Unified Communications Manager (UCM), with various models of Cisco Unified IP Phones deployed on every floor. UCM integrates smoothly with the Microsoft Communicator devices used by the floor staff and event managers, and with the Microsoft Messenger instant messaging platform.

Wired services are complemented by a high-density Cisco wireless network, comprising two Cisco Wireless Controllers and 120 Cisco Wireless Access Points using the 802.11n wireless standard for fast connections anywhere in the building.

The wireless network has three main application areas. First, as an internal communication platform for mobile staff and management. Second, as a free service to all visitors over a set period, with a customized landing page requiring acceptance of the centre’s terms and conditions. Third, it enables The CCD to offer customised services for forthcoming events. For example, it can issue a customer with Cisco guidelines on landing pages so they can develop their own, event-specific graphics. The centre then makes the material available, with a password if desired, to provide tailored and strongly-branded event messaging.

Results

The most significant benefit gained by The CCD from the speed, reliability, and responsiveness of its Cisco Borderless Network infrastructure is the ability to handle a high throughput of conference delegates while supporting all types of communications need. “We believe we have the most scalable infrastructure of any conference facility in Ireland,” says Henderson, “and that implies plenty of room for future business growth.”

At present, the centre guarantees connections for 2000 concurrent users. When visitors hit a recent peak of some 4000 people in a single day, it was found that only 1800 or so were using the phone or going online at a time. Those figures

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suggest a comfortable margin for expansion. On this ratio, the centre could accommodate future growth (though delegate numbers are subject to other considerations) before reaching communications capacity.

From an ICT perspective, The CCD sees major advantages in the robust failover process assured by the system, which translates into a tangible business benefit. Henderson explains: “Customers have complete peace of mind that if our primary circuit breaks, they’ll have a reliable back-up service—and the switchover is pretty much seamless.”

Operational impacts for the centre’s management are positive. For instance, the Cisco infrastructure allows control of the amount of bandwidth available to customers, enabling a graduated rate card for online speeds. Customers can choose a speed limit in advance, with obvious benefits to resource allocation and capacity planning, though connection speeds can easily be modified on the spot if needs change at short notice.

The system simplifies the intricacies of billing for voice services. Instead of having to log every call made by each customer and charge them afterwards, Cisco UCM enables the management team to monitor how much is spent per month on each line and run threshold checks. The CCD sees this as a form of due diligence that enables flat rate charging, based on the principle that heavier and lighter voice users balance out over time and therefore yield an aggregated margin, which can be forecast with some precision.

The Cisco Borderless Network also eliminates hassle and distraction for delegates, especially at large, multi-faceted events, of working out how to keep in touch as they move round the building. By cutting down the number of contact numbers they need, they are empowered to give their full attention to events. “Previously, they might have needed five different numbers for five different rooms,” Henderson comments. “Now they only need to rent one or two numbers for the duration of the event.”

The simplicity, security, and convenience of the Cisco wireless network is prompting more customer inquiries as BYOD becomes the business norm. “We’re extremely happy with the performance we get from our Cisco Borderless Network,” concludes Henderson. “It meets all our requirements and can handle all the pressure we’re putting it under. The technology does exactly what we’re looking to do, and it’s user friendly, too.”

Next Steps

The next stage in the centre’s non-stop drive for continual customer service improvement will be to investigate the capabilities of single-number reach within the building. Using Cisco UCM, delegates can receive calls and texts, and access voicemail, over any device—anytime, anywhere. The CCD also wants to integrate the walkie-talkie radios used by floor staff into the unified system to optimize staff deployment.

For More Information

To learn more about Cisco Borderless Networks, please go to www.cisco.com/en/US/netsol/ns1015/index.html



Product List

Routing and Switching

- Cisco Catalyst 6500 Switch – Routing Enabled
- Cisco Catalyst 3750 & Catalyst 2811 Switches
- Cisco Content Services Switch CSS 11501

Wireless LAN

- Cisco WLAN Controller 4402
- Cisco Aironet Access Points 1252 and 1142

Voice

- Cisco Unified Communications Manager v6.0
- Cisco IP Phone models 7962, 7940, 7937, 7914, 7911

Security

- Cisco Adaptive Security Appliance 5520



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