



## Qatar National Convention Centre enhances national drive to grow beyond oil by unlocking human potential

### EXECUTIVE SUMMARY

**Customer Name:** Qatar National Convention Centre

**Industry:** Public Sector

**Location:** Doha, Qatar

**Number of Employees:** 400

#### Challenge

- Host international, regional, and local events to become Middle East showcase
- Show highest standards of environmental sustainability in modern business facility

#### Solution

- Cisco Unified Communication including Unified Communications Manager, Cisco Unity Connection, and Cisco Unified Presence
- Cisco Borderless Network platform including Cisco ASA security, Unified Data Center, and Network Management
- Cisco Services for design and implementation
- Cisco Media Experience Engine to share video via any endpoint.

#### Results

- Major United Nations and international energy conferences hosted since opening
- Full and varied calendar of high-profile events and expositions for 2012 and beyond
- Global focus on Qatar as emerging international knowledge economy hub

### Challenge

The Qatar National Convention Centre (QNCC) is one of the most sophisticated convention and exhibition venues built to date, boasting iconic design inspired from Qatar's beloved icon, the Sidra tree. The spectacular facade resembles two intertwined trees reaching up to support the exterior canopy. The tree is a beacon of learning and comfort in the desert and a haven for poets and scholars who gathered beneath its branches to share knowledge. The Centre offers fully flexible and adaptable space options to suit a wide variety of conferences, meetings, exhibitions, theatrical performances, concerts, and gala events. QNCC can host meetings for 10 people to conferences for 10,000 people.

It is a key project of the Qatar Foundation for Education, Science, and Community Development, which is chaired by Sheikha Moza bint Nasser, wife of the country's ruler, Amir Sheikh Hamad bin Khalifa Al-Thani. The Qatar Foundation operates as a project developer to bring about national transformation by unlocking human potential, and by recognizing that the economic dominance of oil and the country's own reserves are finite.

The aim was for QNCC to be a regional showcase. As a landmark facility, it would have to be able to cater for national, regional, or international users with equal ease and flexibility. The building was conceived as an exemplar of green business practice, committed to the highest standards of environmental sustainability. And it needed to become an independent source of revenue for reinvestment by the not-for-profit Qatar Foundation.

These imperatives underscored the need for the most advanced communication technologies available. Sa'di Awienat, IT director at the Qatar Foundation, says: "It was natural to turn to Cisco, which has been the leading technology provider in Qatar Foundation projects. Today, Cisco has such a strong presence in our networks that we see it as a strategic partner."

### Solution

The QNCC building is vast. With four floors, including a mezzanine, it can host up to 27,000 people at a time, attending separate simultaneous events or a single major conference. The floor space covers more than 200,000 square metres and includes 40,000 square metres of exhibition space, a 2300-seat theatre, a conference hall for 4000 delegates, three tiered auditoriums, 52 meeting rooms, and six VIP suites.



**“We wanted to invest in a state-of-the-art facility featuring state-of-the-art technologies, and everyone agreed that rich media and collaboration capabilities were a prerequisite.”**

Sa'di Awienat  
IT Director  
Qatar Foundation

The first step for the Qatar Foundation core ICT team was to engage with stakeholders and end users to determine the services required. “We wanted to invest in a state-of-the-art facility featuring state-of-the-art technologies,” says Awienat, “and everyone agreed that rich media and collaboration capabilities were a prerequisite.”

The Cisco Services team was closely involved at the design stage, and played a vital role in monitoring quality and execution during implementation. That is standard procedure on Qatar Foundation projects, to help ensure full value is gained from Cisco technologies. Given the size of the building and the range of technologies to be installed and integrated, the role of Cisco Services was key in reducing risk and enabling the foundation to meet an aggressive timeline. “Our ongoing collaboration with Cisco Services has provided key support in many Qatar Foundation projects,” says Awienat.

A three-tier Cisco® Borderless Network was installed using core, distribution, and access layers. Each of the core and distribution layers includes four Cisco Catalyst® 6500 Series Switches, arranged in parallel logical pairs for redundancy, running in virtual switching system mode. An extensive access layer, essential for a large number of users, is based on Cisco Catalyst 4500 and 3500 Series Switches. To accommodate the importance of rich media, the network was configured as an end-to-end architecture to optimize and enhance performance of voice, video, and data across the QNCC estate.

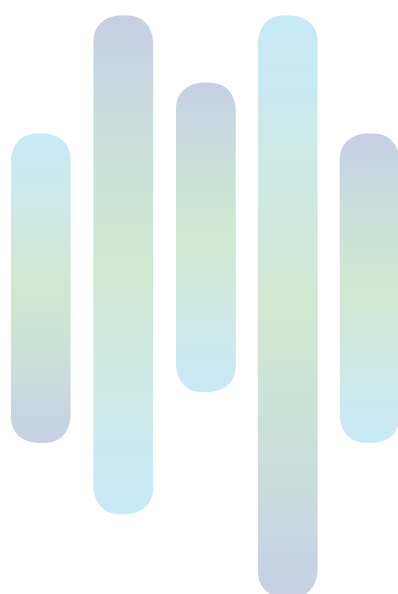
Some 400 Digital Media Signage screens were deployed. Running in two modes, Digital Media Signage and Enterprise IPTV, the solution includes Cisco Scientific Atlanta encoders, which can process multiple MPEG video streams simultaneously. The screens offer way-finding services in Digital Media Signage mode, or show multichannel satellite IPTV. Along with the Digital Media Manager, the Cisco Media Experience Engine allows video to be transcoded quickly and effectively from any format to any format.

Digital Media Manager and Digital Media Signage are equally important in providing access to up to 18 channels over IPTV, fed in from the Qatar Foundation satellite dish farm, including both local and international channels. The solution also offers the possibility in the future for creating additional revenue streams through the introduction of paid-for advertising.

Meanwhile, Cisco Unified Communications Manager coordinates 700 endpoints, wired and wireless, with single-number reach. Cisco Unity® Connection enables unified voice messaging with inbox access to email.

“Cisco Unified Communications is the core audio and video communication solution,” says Awienat. “It enables us to offer high levels of customer service, improve efficiency, and give anytime anywhere access for both tenants and staff.” Staff can access key business applications over the wireless network, enhancing management efficiency. “Mobility is one of the mandated features required by our people, and Cisco Unity Connection allows them to operate effectively on the go,” says Awienat.

Network traffic is segregated into VPNs over the enterprise LAN, both wired and wireless, to enable simultaneous multiple events. This solution creates a multitenant cloud, provisioned and controlled from the data center using the Cisco LAN Management Solution (now known as Cisco Prime LMS), which delivers powerful network lifecycle management facilities. It simplifies the configuration, monitoring, and troubleshooting of the network, while intelligent gateway services police network traffic to keep everything running smoothly.



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Security and secure remote access is based upon Cisco ASA 5500 Series firewalls, with advanced intrusion prevention. Meanwhile, the Cisco AAA (authentication, authorization, and accounting) architectural framework consistently integrates those three independent security functions. In the data center, Cisco Nexus® 7000 Series Switches provide an integrated computing and storage connectivity platform.

### Results

Since opening in December 2011, QNCC has hosted events of global significance. These include the 20<sup>th</sup> World Petroleum Congress, and UN meetings on The Alliance of Civilizations and Trade and Development. It has been the setting for successful smaller conferences, too, on topics such as science, technology, medicine, natural resources, and Arabic scholarship. A full calendar of forthcoming events is scheduled throughout 2013.

The sheer size of the venue means that the benefits of Digital Media Signage are indispensable. “We can have up to 20,000 people inside QNCC, so we need to guide them, and digital signage is vital,” says Awienat. The solution also provides different features, such as commercial advertising, event promotion, or way-finding to help people reach their next destination quickly.

“We have successfully worked with Cisco on many different projects, and the success of the Qatar National Convention Centre is the fruit of this long relationship,” Awienat says. “This was a very complex undertaking, and the expertise, knowledge, and resources that Cisco offered helped us deliver it on schedule.”

### Next Steps

The part played by the Cisco Services team is a significant factor not only in the technological excellence already on public display in QNCC, but also in the enhancements planned for 2103 and beyond. When signatories to the Kyoto Protocol mustered at QNCC in late-2012 for the Doha Conference on Climate Change, they had the assurance that QNCC practices what it preaches environmentally. QNCC has earned what is thought to be the first LEED (Leadership in Energy and Environmental Design) gold certification in Qatar, an internationally recognized green building certification that demands rigorous standards of compliance.

### For More Information

To learn more about the Cisco technologies described above, please click on these links:

[www.cisco.com/go/borderless](http://www.cisco.com/go/borderless)

[www.cisco.com/go/collaboration](http://www.cisco.com/go/collaboration)

[www.cisco.com/go/datacenter](http://www.cisco.com/go/datacenter)

For more information on Cisco Services, go to [www.cisco.com/go/services](http://www.cisco.com/go/services)



## Product List

### Collaboration

- Cisco Media Experience Engine

### Unified Communications

- Cisco IP Phones
- Cisco Unified Communications Manager
- Cisco Unity Connection

### Borderless Network

- Cisco ASA 5500 Series Firewalls
- Cisco Catalyst 4510, 4507, 3500 Series Switches
- Cisco Catalyst 6500 Series Switches
- Cisco Nexus 7000 Series Switches

### Services

- Cisco Design Services
- Cisco Implementation Services



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