

Museum Increases Footfall with Richer Visitor Experience



Cisco Unified Access wireless technology gives visitors to the Rijksmuseum a more interactive way of enjoying art and history

EXECUTIVE SUMMARY

Customer Name: Rijksmuseum

Industry: Government

Location: Netherlands

Number of Employees: 650

Challenge

- Increase number of visitors against competition from other cultural attractions
- Improve visitor experience by taking advantage of new technologies
- Support new applications and simplify IT administration

Solution

- Cisco Unified Access wired and wireless architecture

Results

- Improved visitor experience
- Helped drive 188 percent increase in visitor numbers
- Simplified on-boarding of guests and contractors
- Enabled museum-based information services

Challenge

The Rijksmuseum is one of the top 10 art and history museums in the world. Based in the heart of Amsterdam, it is the national museum of the Netherlands and dates back to 1800. The Rijksmuseum exhibits predominantly Dutch art and history from the Middle Ages until now. Its mission is to offer visitors a feeling of beauty and of time, not just focusing on art but also on the context in which it was created.

The museum houses top pieces from well-known 17th century Dutch artists, including *The Night Watch* by Rembrandt van Rijn and *The Milk Maid* by Johannes Vermeer, and is one of the top visitor attractions in the country. However, it was closed from 2003 until April 2013 for extensive refurbishment.

The 10-year, EURO€375 million (US\$512 million) renovation aimed to update most aspects of the museum and at the same time help it compete for visitors against other popular attractions. Like other cultural institutions, the Rijksmuseum increasingly has to cater for a connected, media-savvy public.

“The old building had lacked any IT infrastructure outside office areas,” says Rob Hendriks, IT manager at the Rijksmuseum, “but the refurbishment project provided an opportunity to unobtrusively install new technologies to improve the visitor experience.” A major consideration was how to take advantage of the advances in mobility that had taken place while the museum was closed.

Another important issue was the fact that the Rijksmuseum was keen to make sure technology did not distract from the exhibited objects. The building was being restored in the spirit of the original design from 1885, meaning state-of-the-art security, climate control, and IT infrastructure technology had to be installed in a way that made it invisible, with no boxes, cables, or flickering lights.



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Rob Hendriks
IT Manager
Rijksmuseum

Solution

The museum deployed a new network throughout the building. It chose an open-standard, Cisco® Unified Access wired and wireless network that could support visitor bring-your-own-device (BYOD) requirements, enterprise IP telephony, and new future services. Imtech, a Cisco partner and technology provider to the Rijksmuseum, installed the network and manages it on an ongoing basis.

The network includes a Cisco Identity Services Engine (ISE), Cisco Catalyst® 3750 Series Switches, 150 Cisco Aironet® 3700 Series Access Points with High Density Experience (HDX) CleanAir® support for 80MHz channels, and Cisco Unified Communications. In addition to ISE, further security is provided via two Cisco ASA 5500-X Series Next-Generation Firewalls.

The choice of access points was important for the museum because they had to be concealed from sight, in sub-optimal locations above ceilings, behind walls, or below floors. This major challenge was overcome with Aironet 3700 Series access points, which have a purpose-built, innovative chipset with best-in-class RF architecture for high-performance enterprise networks.

Within the Rijksmuseum, the Cisco Aironet 3700 Series access points could be packed relatively closely together to provide the high levels of connectivity required for peak visitor levels, without signals being impaired by walls, floors, and other barriers.

Mobile apps, which allow visitors to take virtual guides through the museum, are supported by the wireless technology. Visitors can access information either with their own devices or with iPads that they can rent from the museum.

Results

Since the thorough renovation that was completed in 2013, the museum exhibits a mixed display of art and historically relevant objects to tell the story of art and its context. The Rijksmuseum philosophy is that the 1.3 million objects it holds are of great historical value and should be shared with the Dutch people.

Consequently, the visitor experience now starts before one even enters the building. The museum offers many of its works of art as high-resolution images that can be downloaded from its website, for sharing and personal use. “Technology helps us get more people to visit the museum. We share the art online, in high resolution, because we think people who come to the museum would want to see the real thing,” says Hendriks.

Once inside, the Cisco network allows visitors to gain access to information and guide notes throughout their tour of the museum. Via the wireless network, visitors have access to a treasure trove of additional background information on their own smartphones or tablets. One major source is the museum website, which is as useful to visitors inside the Rijksmuseum as it is to those outside.

Each day 10,000 to 15,000 visitors have to be able to access the network, everywhere in the building and including peak hours. And it’s not just visitors who rely on the infrastructure. The museum has LED lighting that facilities management staff can adjust remotely over the network, using an iPad, to improve the way objects are displayed, for example.

This richer visitor experience is helping the Rijksmuseum exceed audience expectations, with visitor numbers soaring from one million previously to 2.4 million in the first 10 months since re-opening. Hendriks says: “It’s extremely important for us because, even for ticket sales, we need the network.”

Behind the scenes, the Cisco ISE allows Rijksmuseum to give secure network access to a wide range of users, from office staff and visitors to facilities and maintenance teams, simply by adding profile-based policies. Employees can safely on-board guests without needing to call upon the IT team.



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Meanwhile, the organization can use policies to streamline operations and improve security associated with contractors, for example by limiting the time that access is granted.

HDX with CleanAir, which is designed for high-density environments and is activated on about half the museum’s Aironet devices, reduces the configuration challenges associated with interference between neighboring access points. It thus improves connectivity to roaming devices, which are predominantly based on the Apple OS.

Going forward, the Rijksmuseum is interested in using location-based data from its wireless network to investigate how visitors move around the museum. “This information could, for example, be used to help improve visitor flows and reduce queues and crowding,” says Hendricks.

By making location-based information available to visitors, the museum hopes to not only help people navigate around the building’s many rooms, halls, and corridors, but also help them avoid large crowds gathering around the most popular paintings in peak hours.

This location information may also help the museum determine how visitors walk through an exhibition, where and when congestion occurs, and which objects attract the most interest, so changes can be made to offer a better visitor experience.

With the new Cisco wired and wireless network, the museum has been able to extend the visitor experience to before and after their tour and to enhance that experience while at the museum. This capability helps make sure the masterpieces at the Rijksmuseum get the attention they deserve, now and in the future.

For More Information

To learn more about the Cisco architectures and solutions featured in this case study go to: www.cisco.com/go/wireless

Product List

Routing and Switching

- Cisco Catalyst 3750 Series Switches

Wireless

- Cisco Aironet 3700 Series Access Points with Cisco CleanAir technology

Security

- Cisco ASA 5500-X Series Next-Generation Firewalls
- Cisco Identity Services Engine



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