

# Cisco and Hong Kong Cyberport Jointly Create a Model Community for City-wide Wi-Fi Network

Innovative Location-based Applications for Future Digital Lifestyle Enabled by Cisco Unified Wireless Network

## EXECUTIVE SUMMARY

### HONG KONG CYBERPORT

- Public Sector

### BUSINESS CHALLENGE

- To build a pioneering model for a city-wide Wi-Fi network which features innovative applications designed to improve the operation of businesses and enrich the quality of life for the community
- To consolidate Cyberport's leading position in the Hong Kong IT landscape by opening up its wireless local area network (WLAN) for public access

### SOLUTION

- Cisco Aironet 1200 Series Access Points
- Cisco Wireless Control System
- Cisco Wireless Location Appliance
- Cisco Wireless LAN Controller Module

### BENEFITS

- Creating the model community for a municipal WLAN in Hong Kong
- Enhancing security for the community
- Consolidating Cyberport's position as Hong Kong's IT flagship
- Building a new platform for promotion and visitor information
- Reinforcing Public Profile for Cyberport

Cyberport—Hong Kong's information technology (IT) flagship—is a US\$2 billion landmark project managed by Hong Kong Cyberport Management Company Limited and wholly owned by the Government of the Hong Kong Special Administrative Region (HKSAR). The project was developed on a 24-hectare site at Telegraph Bay in the southern district of Hong Kong Island. It comprises four office buildings, a five-star hotel, a retail entertainment complex and a deluxe residential development, and provides an interactive environment that is home to a strategic cluster of more than 100 IT companies and 10,000 IT professionals.

## The Business Challenges

With a vision of establishing itself as the leading IT hub and positioning Hong Kong as a digital city of the Asia-Pacific Region, Cyberport set out to build a pioneering model for a municipal Wi-Fi network which would feature innovative applications designed to improve the operation of businesses and enrich the quality of life for the people of Hong Kong.

As such, Cyberport needed a virtual platform where its tenants, particularly the cluster of software developers, could develop and deploy their creative applications for businesses and individuals. The IT flagship community also required an open wireless network so members of the public might access these applications and experience the benefits of life in the digital era anytime, anywhere in the community.

By enabling tenants to develop innovative Wi-Fi applications and opening up its wireless local area network (WLAN) for public access, Cyberport wished to consolidate its leading position in the Hong Kong IT landscape. To support these initiatives, Cyberport needed highly robust, advanced, secure and reliable wireless network technologies in place.

"Our existing Cisco-powered wireless network has catered to our requirements, but it needed to be upgraded to help us make these mission-critical goals into reality. Following a thorough search for the right solution to facilitate this upgrade, we decided to deploy the robust Cisco Unified Wireless Network, partly because of the confidence we already had in Cisco wireless technologies," said Mr.

David Chung, Senior Manager, Information Technology Operations, Hong Kong Cyberport Management Company Limited.

## The Solution

The Cisco Unified Wireless Network at Cyberport is built with a range of industry-leading products with advanced features.

### Cisco Aironet 1200 Series Access Points

The wireless network's backbone infrastructure comprises 280 Aironet 1200 Series Access Points (APs), which simultaneously support both 2.4-GHz and 5-GHz radio frequencies (RFs), single- and dual-band configuration and IEEE 802.11a/b/g technologies. The APs offer the same versatility, high capacity, security and enterprise-class features demanded by industrial WLAN customers in a single-band 802.11g solution. Not only do the Cisco Aironet 1200 Series APs meet the needs of today's applications, but they also help protect future network infrastructure investments.

### Cisco Wireless Control System

Cisco Wireless Control System (WCS) is an optional component that enables network administrators to have a single solution for RF prediction, policy provisioning, network optimization, troubleshooting, user tracking, security monitoring and WLAN systems management. Cisco WCS includes tools for WLAN planning and design, RF management, location tracking and an Intrusion Prevention System (IPS), as well as WLAN systems configuration, monitoring and management.

### Cisco Wireless LAN Controller Module

Cisco Wireless LAN Controller Module (WLCM) gives network administrators the visibility and control necessary to effectively and securely manage business-class WLANs and mobility services, such as enhanced security, voice, guest access and location services. When deployed with Cisco lightweight access points and the Cisco WCS, WLCM can enable centralized WLAN management and monitoring.

### Cisco Wireless Location Appliance

The Cisco Wireless Location Appliance is the industry's first location solution that simultaneously tracks thousands of devices in a particular WLAN infrastructure. This advanced capability brings the power of a cost-effective, high-resolution location solution to critical applications such as high-value asset-tracking, IT management and location-based security.

"We envision that location-based applications will be an instrumental part of digital life in Hong Kong in the future, as this software can enhance the city's overall connectivity and responsiveness. We decided to deploy the Cisco solution for our model community as it is the first in the industry to support location-based applications," said Mr. Chung.

## Implementation

This upgrade was designed and implemented by system integrator Macroview, following a six-month planning process with Cyberport. The implementation of the upgrade was completed on schedule, with the WLAN opened up for public access in December 2006.

"The implementation process was extremely smooth. All work was completed on time, thanks to the professional advice by Cisco and the technological expertise of the Macroview team," said Mr. Chung.

## Benefits

### Creating the Model Community for a Municipal WLAN in Hong Kong

The upgrade has transformed Cyberport into the model community for a city-wide Wi-Fi. The robust and highly secure WLAN enables open access to the sophisticated applications deployed by the Cyberport software developers on the WLAN.

The Cisco Wireless Location Appliance supports a wide range of innovative applications, such as location-based games, facilities management, restaurant reservations, hotel guest room bookings and movie ticketing, that improve the operation of businesses and enrich the quality of life for the community. These revolutionary applications can be readily deployed city-wide when a municipal Wi-Fi network is implemented throughout Hong Kong, maximizing the benefits of life in the digital age for the general public.

### Enhancing Security for the Community

The security of Cyberport is significantly boosted by the location tracking function of Cisco WCS. Images recorded by surveillance cameras around Cyberport are fed to the security control room through the wireless network in a real-time manner, so that potential security issues can be identified instantly. The asset tracking function can locate and dispatch security patrol staff nearest to these scenes. Since the security patrol staff are equipped with Wi-Fi enabled handheld devices, they can monitor the situation before approaching the scene of a security issue.

### Consolidating Cyberport's Position as Hong Kong's IT Flagship

The WLAN upgrade helps Cyberport foster an innovative environment in the local IT industry and consolidate its image as a leading force in developing the Hong Kong IT industry. With this first-of-its-kind wireless networking infrastructure in place, Cyberport has created a virtual testing ground for software developers to deploy their creative applications, which will also help attract more regional IT talent to start up in Cyberport.

### Building a New Platform for Promotion and Visitor Information

Apart from facilitating location-based games and activities, the Wireless Location Appliance also makes the deployment of other informative applications possible. With maps of the Cyberport campus integrated on the wireless network, connected handheld devices can become interactive information desks for visitors.

Non-IT-focused tenants, like the food outlets, retailers and other shops in the retail entertainment complex, can make use of this wireless network as a new business platform to promote their products and services. The location-based capability of the Cisco solution enables these retail tenants to send promotional messages to Cyberport visitors. This intelligent function creates a new way for retailers and shop owners to reach their target shoppers.

This radical new business platform means more business opportunities for retail tenants at the Cyberport retail entertainment complex, providing a more comprehensive living environment for all members of the community.

### Reinforcing Public Profile for Cyberport

Since the Cisco-powered wireless networking platform was opened up for public access in late 2006, Cyberport has been able to provide tenants and visitors with complementary Internet access and a futuristic digital lifestyle experience. This helps Cyberport draw more visitors and further consolidate its image as a truly community-based project for the Hong Kong public.

"Staying true to our core identity as Hong Kong's leading IT showcase, the Cisco-powered open WLAN at Cyberport provides a platform for the public to experience the new and unique applications launched by our tenants in the IncuTrain Centre. Internet Protocol version 6-ready, this WLAN sets up a blueprint for the Hong Kong Special Administrative Region Government to implement a city-wide Wi-Fi network," commented Mr. Chung.

### Next Steps

To augment its model community for a municipal Wi-Fi network, Cyberport will encourage tenants to develop more innovative applications, including facilities management, instant communications tools and other bandwidth-intensive multimedia content, such as interactive movies. Cyberport also plans to broaden the scope of the WLAN by enabling waterfront coverage through the deployment of more APs.

With the deployment of more applications on the WLAN, the model community for municipal Wi-Fi will demonstrate to the HKSAR Government and the general public the many benefits of a digital lifestyle, when a city-wide WLAN is implemented in Hong Kong.

"Cisco is delighted to collaborate with Cyberport in pioneering this model community and helping demonstrate the benefits that Hong Kong residents and visitors will enjoy with a municipal Wi-Fi network. This will complement the Government's IT development strategies like Digital 21 and e-government, helping maintain Hong Kong's leading position in the global technology landscape and enhancing its competitiveness overall," noted Mr. Charleston Sin, Cisco's general manager for Hong Kong and Macao.



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Cisco Systems, Inc.  
San Jose, CA

**Asia Pacific Headquarters**  
Cisco Systems (USA) Pte. Ltd.  
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