![CISCO]

One Secure Wireless Network for All Global Delivery Centers

Mindtree employees can connect over Wi-Fi from anywhere in any office. It's simple, fast, and secure.

"We've achieved what we set out to do. The wireless experience is very simple, and network access is secure."

– Ramesh T Kumar, General Manager of Corporate Information Systems
Mindtree

Challenges	
	• Connect more employees and devices
	• Comply with stringent security requirements
	• Manage network access from a single and simple interface

Mindtree is among the fastest growing technology firms globally, with more than 200 clients and offices in 14 countries. The firm delivers technology services and accelerates growth for Global 1000 companies by solving complex business challenges with breakthrough technical innovations. Mindtree specializes in e-commerce, mobility, cloud enablement, digital transformation, business intelligence, data analytics, testing, infrastructure, enterprise application integration (EAI), and enterprise resource planning (ERP) solutions.

To deliver excellent client services, Mindtree strives to create a highly productive environment with ready access to information. As more and more employees work away from their desks, providing sufficient data ports in conference rooms, training areas and other common places posed a challenge.

Mindtree decided to build a high-performance wireless network serving all Global Development Centers. Ease of use and security topped the list of requirements. "We measure the success of IT projects based on the user experience," says Ramesh T Kumar, General Manager of Corporate Information Systems for Mindtree. "It's a job well done if the end users don't need help from IT." The new wireless network also had to be as fast as the wired network and provide access to the same content and services.

Case Study | Mindtree

Size: 13,000 Employees	Location: Bangalore, India	Industry: IT Services

Solutions	• One network and one policy for 10 global locations • Centralized management of approximately 450 wireless access points

After evaluating leading wireless solutions, Mindtree selected Cisco. "Cisco® wireless provides a secure and great user experience," says Mr. Ramesh. "And management is simple because we can manage our wired and wireless networks as one."

Mindtree IT team built the network in phases. Phase one was to provide coverage in every office. Employees can access the information and services they are authorized to use from any office. Guests can connect to the Internet. The IT staff manages all access points centrally and can detect and mitigate security threats using built-in tools. Employees can count on Wi-Fi because Mindtree IT built the solution with redundant controllers. There is no downtime when one controller switches over to the other.

Employees enthusiastically adopted the wireless network, and usage surged. In phase two, the Mindtree IT team adapted the network for more users. They increased bandwidth by upgrading the Cisco access points to support the IEEE 802.11n standard. They also added access points in areas where many people tend to connect simultaneously. Cisco Mobility Services Engine identified these areas.

Bandwidth requirements grew as the workforce expanded, and employees started using Wi-Fi for video and cloud services. So, in phase three, the Mindtree IT team started giving higher priority to the most critical applications. The team can see all network activity, including how much bandwidth each application consumes. What makes it possible is Cisco Application Visibility and Control (AVC) with Cisco Prime™ Infrastructure.

Now Mindtree is making the Wi-Fi network even faster. The access points in newer offices support the 802.11ac standard for up to three times the performance of 802.11n. That means the hundreds of new employees in a residential training facility will be able to watch training videos at the same time.

Results	• Made it just as easy to work over Wi-Fi as the wired network • Controlled network access based on identity and device type • Reduced software upgrade time from weeks to hours

Employees Like the Simple Wi-Fi Experience

"We've achieved what we set out to do," Mr. Ramesh says. "The wireless experience is very simple and network access is secure."

In the first half of 2014, Mindtree offices in India increased Internet bandwidth consumption fivefold. "Wireless performance has remained excellent," says Samir Doshi, associate director of Corporate Information Systems at Mindtree.

Security Has Become Easier, Not Harder

When the company had only a wired network, the IT team controlled access to applications and information by physically connecting each desktop to a particular switch port. That's painstaking work. They had to do it again whenever an employee moved to a new office. Now the network automatically connects employees to the right set of resources. Security policy is enforced consistently whether the employee connects over Wi-Fi or the wired network, no matter what device they use. The brains behind these security decisions is Cisco Identity Services Engine (ISE).

One Network, One Management Interface

Managing 450 access points in 10 locations is as simple as if they were all in one location. The IT team in Bangalore remotely configures and controls all access points over the WAN, using the Cisco FlexConnect™ feature of the Cisco Wireless LAN Controller. The company is saving the time and costs to send IT staff to different offices to manage access points. Mindtree also saved the expense of a separate controller for each office.

The IT team can see all network activity, both wired and wireless. As a result, they can quickly identify and resolve performance issues in any global office. Once, seeing that a gaming console in the U.S. office was slowing down network performance, the team contacted the surprised employee and asked him to shut it down.

"Management is much simpler," says Mr. Ramesh. "That's because the IT team can control all access points, routers, and switches from one interface, Cisco Prime Infrastructure. As a result, network upgrades now take just four hours, down from four weeks."

Next Steps

Choice of Device

Later, employees will have a choice of laptops, tablets, or smartphones to use for work. Mindtree plans to control people's wireless access based on whether they are using a company-owned or personal device. Cisco ISE can consistently enforce the company's security policy for any device type and any type of connection: wired, wireless, or VPN.
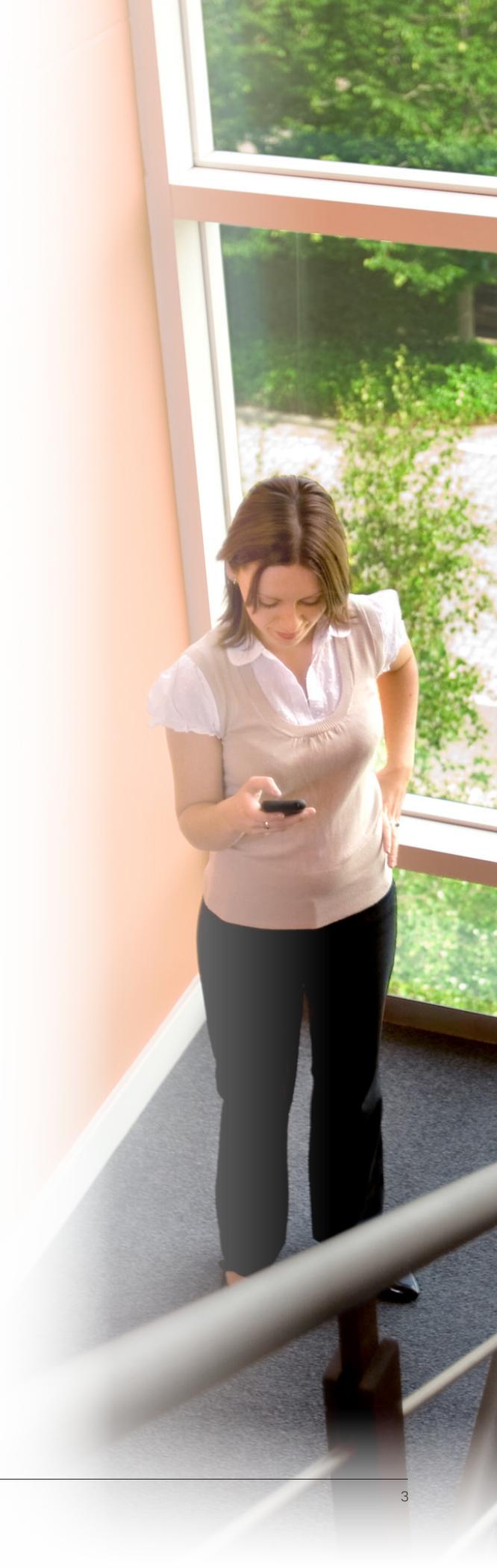
Ready for Asset Tracking

The foundation is also in place to track people and assets, using Cisco Connected Mobile Experiences (CMX). Cisco MSE shows the last place where the employee connected.

For More Information

Learn more about Cisco wireless solutions: www.cisco.com/go/wireless

Learn more about Cisco security solutions: www.cisco.com/go/security.

Products and Services

Switches and Routers
- Cisco Catalyst® 2960-X, 4500, and 6500 Series Switches
- Cisco 2900 and 3900 Series Integrated Services Routers

Wireless
- Cisco Aironet® Series 1140, 3600, and 3700 Access Points
- Cisco Aironet Access Point Module for Wireless Security
- Cisco 5500 Series Wireless LAN Controllers
- Cisco Mobility Services Engine 3355
- Cisco Application Visibility and Control (AVC)

Security
- Cisco Identity Services Engine (ISE) 3495 and 3415
- Cisco ASA 5500 and 5500-X Next-Generation Firewalls
- Cisco Wireless Intrusion Prevention System (wIPS)

Management
- Cisco Prime Infrastructure

Communications and Collaboration
- Cisco Unified Communications Manager
- Cisco Unified IP Phone 6900 and 7900 Series

TelePresence
- Cisco TelePresence® Video Communications Server (VCS)
- Cisco VCS Expressway
- Cisco TelePresence MCU Series
- Cisco TelePresence System Codec C Series and TelePresence Profile Series

Data Center
- Cisco UCS® B200 M2 Blade Server and C220 M3 Rack Server
- Cisco Nexus® 7000 Series Switch

·ı|ı·ı|ı·
CISCO

Americas Headquarters	**Asia Pacific Headquarters**	**Europe Headquarters**
Cisco Systems, Inc.	Cisco Systems (USA) Pte. Ltd.	Cisco Systems International BV Amsterdam,
San Jose, CA	Singapore	The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

C36-733455-02   03/15