Compact Switches Deliver Powerful Network for IT Firm

Mitsubishi Research Institute DCS deploys Cisco network for enhanced security, lower costs, and greater productivity.

EXECUTIVE SUMMARY

Customer Name: Mitsubishi Research Institute DCS

Industry: Outsourced business processes/IT services

Location: Tokyo, Japan

Number of Employees: approximately 1970

BUSINESS CHALLENGE

- Provide enhanced connectivity to employees across campus facilities, including spaces with open floor plans and desk cluster "islands" that lack proximity to wiring closets
- Minimize total cost of ownership, including installation and maintenance costs
- Enhance security of sensitive data

NETWORK SOLUTION

- Standardized on Cisco network including out-of-closet installations of Cisco compact switches to provide secure, stable connectivity throughout office spaces

BUSINESS RESULTS

- Reduced costs for network cabling, maintenance, and printing
- Helped enable employees to connect to network from virtually anywhere in office building
- Improved security of data via 802.1X protocol end-to-end

Business Challenge

Since 1970, Mitsubishi Research Institute DCS has provided an array of IT services, including systems consulting, application development, and ERP/CRM solutions, to thousands of companies in Japan and around the world.

As a trusted partner for organizations ranging from government agencies to private financial firms to global public enterprises, Mitsubishi Research Institute DCS maintains an unparalleled commitment to securely exchanging and storing customer data. In particular, as an outsourcer of information processing services and a systems integrator, the institute offers extensive data solutions development capabilities and state-of-the-art global network support services for commercial use.

"Through custom-designed platforms or outsourced support, we process data from customers in all lines of business, and the security of their data is critical to them and to us," says Takehiro Saito, director of the Technology Implementation Division at Technology Implementation Headquarters in Tokyo for Mitsubishi Research Institute DCS. "We needed a solution that could seamlessly link with our data center in Chiba and enable secure 802.1X access to that information by our employees."

Outsourcing services involve processing massive amounts of sensitive data. Mitsubishi Research Institute DCS needed a robust, secure, end-to-end network solution to manage the flow of information being shared by internal users, such as client managers and analysts. Customers using the firm's outsourced services are supported by a large staff of advisers and account managers who work collectively from the company's Tokyo Business Center. Its offices are arranged in an open floor plan configuration, featuring "desk islands," clusters of employee desks, to promote collaboration, more efficient resource consumption, and productivity.

Desk islands present unique challenges for network deployment. Most switches require installation in a wiring closet, because the cooling fans for the switches are noisy and not conducive to an open-space work environment. However, many of the desk islands are not near a wiring closet. Because each floor and office in the building features a unique layout and hosts a different number of users, networking the islands was difficult and costly. In the past, a nonintelligent switching hub was used in this type of situation to connect end devices, but such hubs lack the end-to-end security features Mitsubishi Research Institute DCS needed.

"With the Cisco Catalyst 2960-C Switches, we have two uplinks, which improves network reliability and provides critical failover support, so productivity is not affected by downtime or maintenance."
— Masaru Watanabe, Assistant Manager, Shared Infrastructure Group, Mitsubishi Research Institute DCS

"We did not have a dedicated room to mount the rack for each island switch, and with different numbers of users in every office on each floor, it would have been expensive to set up regular switches on the floor rack," says Masao Aikawa, manager of the Shared Infrastructure Group in the company's Implementation Division. "We needed an alternative solution to provide more flexible connectivity and simplified troubleshooting while maintaining a quiet, pleasant work environment."

Network Solution

Mitsubishi Research Institute DCS deployed a stable, scalable, and highly secure Cisco network to enable more reliable access to business-critical data for employees and customers. The network is built around Cisco Catalyst® 3750-X and 2960-S Series Switches, along with Catalyst 2960-C Series Compact Switches, to provide user authentication and superior Layer 2 threat defense capabilities through policy-based access control. Cisco® 5500 Series Wireless Controllers and Cisco Aironet® 1140 Wireless Access Points provide cohesive wireless connectivity to locations throughout its Tokyo Business Center.

PRODUCT LIST
Routing and Switching
• Cisco Catalyst 3750-X Series Switch
• Cisco Catalyst 2960-S Series Switch
• Cisco Catalyst 2960-C Series Compact Switch
Wireless Access
• Cisco 5500 Series Wireless Controller
• Cisco Aironet 1140 Series Access Points

With Cisco technologies, Mitsubishi Research Institute DCS upgraded to a robust and secure 1 GbE network for its Tokyo Business Center, at the center of its operations. "The Cisco solution simplifies network deployment, operations, and management, enabling us to extend the same network policy and 802.1X security end-to-end, from the network core to the edge," says Aikawa. "Equally important, the solution provides IEEE 802.1X-compliant protocol, enabling us to track network access, which is vital, given how highly we value the security of our customers' data."

With Cisco Catalyst 2960-C Series Compact switches, network connectivity can be extended directly to the desk islands without extensive wiring and cabling. Unlike other switches that need to be housed in a wiring closet and require greater space, Cisco compact switches have a small form factor and can be attached directly to the desk islands using a magnet for simple deployment. The switches can be configured and monitored from a central console, accelerating troubleshooting and helping to decrease unproductive downtime.

"We used to have only one uplink for each desk island hub," says Masaru Watanabe of the Shared Infrastructure Group in the company's Technology Implementation Division. "With the Cisco Catalyst 2960-C Switches, we have two uplinks, which improves network reliability and provides critical failover support, so productivity is not affected by downtime or maintenance."

Due to their fanless design, the Cisco compact switches provide quiet, distraction-free operation in busy work areas. In combination with the switches, Cisco Aironet 1140 Series Wireless Access Points are deployed throughout the workspace, providing stable, reliable connectivity without taking up valuable space.

Business Results

The Cisco network offers Mitsubishi Research Institute DCS a high-performance, stable, and scalable solution for managing its business and providing customers with superior service. The Cisco solution extends network access to employees from virtually anywhere in any building, helping enable them to work from remote spaces such as meeting rooms and break rooms, as well as production and development areas. By leveraging Cisco Dynamic Host Control Protocol (DHCP), DCS can eliminate static IP address management responsibilities and enable connection to the network without having to set up a new IP address.

"Cisco technologies have provided the foundation for a high-performance network that enables employees to work freely from virtually anywhere and be more productive," says Aikawa. "DHCP saves the time and costs we used to spend on dedicating human resources to managing IP addresses and frees up employees to move around at will."

In addition to promoting a more flexible work environment, the Cisco network has helped the company realize significant operational cost savings. "We've been able to dramatically reduce the amount we spend on cabling, network maintenance, and printing," says Saito. "Enabling employees to work in different spaces has helped dramatically reduce the costs of printing meeting materials, since information can now be shared in person. Also the Cisco switches require fewer cables, so we save on the cabling and installation costs."

The successful deployment of a wireless Cisco network in some of its major offices has encouraged Mitsubishi Research Institute DCS to plan future deployment in its other facilities. "We're in the planning stages of rebuilding the LAN for our data center," says Aikawa. "With the scalability, reliability, and stringent security measures Cisco technologies offer, it's the next logical step in our continued efforts to provide better services to our customers."

For More Information

To find out more about the Cisco Catalyst compact switches, go to:
http://www.cisco.com/en/US/products/ps11527/Products_Sub_Category_Home.html.

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