



Customer Case Study

Manufacturer Increases Network Availability with Managed Service

HORIBA interconnects its North American locations using the Sprint Global MPLS Service and Cisco Integrated Services Routers.

EXECUTIVE SUMMARY

HORIBA—Americas

- Improve application performance
- Increase network availability
- Free up IT to focus on the core business

NETWORK SOLUTION

- Subscribed to Sprint Global MPLS Service
- Deployed Cisco Integrated Services Routers with integrated security

BUSINESS RESULTS

- Improved application performance and employee productivity
- Achieved 100 percent network uptime in most locations
- Reduced network bill by 50 percent

BUSINESS CHALLENGE



Established in 1953, HORIBA designs and manufactures specialized testing and process control equipment for the healthcare, environmental, semiconductor manufacturing, and automotive industries. HORIBA’s North American operation

includes eight locations in the United States and Canada. Until 2004, employees in North America depended on a Frame Relay network service for access to critical centralized enterprise resource planning (ERP) and e-mail applications. High costs, downtime, and the desire to deploy additional network-based services prompted Rajah Nithiananthan, IT manager for North America, to look for a different type of network. “We wanted value-added services such as QoS (quality of service), proactive network monitoring, and greater bandwidth,” says Nithiananthan.

The lack of QoS in HORIBA’s Frame Relay network periodically caused slow performance for the company’s ERP and e-mail applications, which prompted user complaints. Lack of QoS also impaired voice quality in the company’s small voice over IP (VoIP) pilot, preventing IT from deploying VoIP throughout the enterprise.

In addition to its Frame Relay network, HORIBA maintained a separate ISDN network for video. This, too, lacked QoS, resulting in poor picture and sound quality. “We paid a high fee for our ISDN network, and yet employees avoided using it for collaboration because of the poor quality,” says Nithiananthan.

An important criterion for the new network service provider would be the ability to provide outsourced management support for HORIBA’s customer premises equipment (CPE)—initially for the Canadian office and later for other locations. “We have a small IT staff: eight people supporting ten locations,” says Nithiananthan. “A managed service with 24-hour support would enable our IT staff to focus on strategic projects instead of constantly reacting to network issues.”

NETWORK SOLUTION



Certified by Cisco for Quality of Service

HORIBA—Americas met all of its objectives with a managed IP VPN service from Sprint, based on end-to-end Cisco Systems® network solutions. HORIBA initially subscribed to the Sprint Peerless IP Network MPLS service, which serves the United States locations, and switched to the Sprint Global MPLS (Multiprotocol Label Switching) Service after adding a Canadian location to the network in 2005. Sprint is a member of the Cisco Powered Network program, which means that it uses Cisco networking equipment and technology and meets Cisco standards for network support.

“We recommended an MPLS-based VPN for HORIBA, because it would enable the different business units to communicate while preserving their existing private addressing schemes,” says Stephen Laphen, senior account manager for Sprint. “In addition, Sprint’s

MPLS-based VPN offerings provide QoS and CoS (Class of Service), which enable HORIBA to assign priority levels to ERP, voice, and video traffic.” HORIBA’s Cisco routers apply tags to traffic that indicate its priority, and the Sprint Global MPLS network honors those tags as traffic enters and exits the network.

To simplify network maintenance and support, HORIBA replaced its firewalls from multiple vendors with Cisco Integrated Service Routers (ISRs), which it purchased from Sprint. Cisco ISRs combine router, firewall, and intrusion detection system (IDS) capabilities in a single device, simplifying management and IT training requirements for HORIBA. “Using a single firewall platform also made it easier to provide automatic failover in the event of an outage, which increases availability,” says Nithiananthan.

The Sprint managed service also plays a large role in improving availability. Historically, downtime on the HORIBA network resulted from last-mile local access issues. To help ensure availability, Sprint connected critical sites with dual T1 lines: one for the MPLS connection to the Sprint network and the other for Internet access. If the MPLS link becomes unavailable, the HORIBA–Americas network automatically activates a secure tunnel through the Internet link, almost instantaneously. When the connection is restored, traffic is automatically rerouted, without any action from the IT group. “Most of our sites have 100 percent uptime due to the combination of Cisco ISRs and the Sprint network,” says Nithiananthan.

Information security is a major concern for HORIBA. To control which users and groups can access the network from outside the enterprise, such as teleworkers, HORIBA deployed Cisco VPN concentrators for secure remote access.

The Sprint Global MPLS managed service includes network design assistance and constant monitoring of links for bandwidth, latency, and any other issues. If Sprint detects an issue with HORIBA’s CPE, Sprint opens a ticket to track resolution status and immediately informs HORIBA. For the Canadian office, HORIBA’s IT group chose a managed service that also provides configuration support, monitoring of CPE, and dispatching a technician when problems occur. “IT organizations today are expected to do more with fewer people,” says Laphen. “With the Sprint Global MPLS managed service, the HORIBA IT group can spend more time on the core business and less on configuring routers.”

“The combination of the Cisco ISR (Integrated Services Router) and the Sprint Global MPLS managed service provides a secure, reliable, scalable platform for all of our voice, video, and data services. We have QoS and high bandwidth—and a data services bill that is half of what it used to be.”

— Rajah Nithiananthan, North American IT Manager, HORIBA

BUSINESS RESULTS

The Sprint managed service improves availability and frees the HORIBA IT staff to focus on the core business. Before switching to the Sprint service, the HORIBA–Americas IT group spent much of its time managing WAN issues, such as last-mile access outages. The 24-hour monitoring and response that Sprint provides with its managed service increase availability and enable HORIBA to staff the Canadian office with only one IT person. “Now our internal IT group can focus more on day-to-day responsibilities and strategic projects,” says Nithiananthan. “I estimate that the redundant access lines and managed services from Sprint have saved us the cost of two full-time IT network engineers.”

HORIBA reduced its communications bill by 50 percent. The Sprint Global MPLS service is more economical than the previous Frame Relay service, even though it provides the QoS, which was not available with the Frame Relay service.

The network helps to unify historically separate divisions. Until recently, each line of business for HORIBA–Americas—automotive, healthcare, medical, and semiconductor—had its own identity. HORIBA is now consolidating to a single corporate identity. The Sprint Global MPLS service helps support this goal by unifying the network and facilitating communications among the divisions.

Availability has improved, and employee productivity is higher. The combination of redundant T1 connections from Sprint and the failover capabilities among the Cisco ISRs helps ensure that business-critical applications are always available. HORIBA has enjoyed 100 percent availability since adopting the Sprint Global MPLS service. Therefore, employees can always access the information and communications systems that they need to do their jobs.

Video quality has improved greatly. “Our users are pleased because of the sharp image, high audio quality, and their ability to conduct multipoint video conferences,” says Nithiananthan. “In addition, video travels over the same IP network that we use for data and voice, which eliminated the high monthly costs of our dedicated ISDN network for video.”

Integrated security protects HORIBA’s information assets and frees up time for IT. Previously, if network performance slowed, IT had to spend time identifying the source of the problem—often a network attack. The integrated firewall and IDS functions in the Cisco ISRs prevent most attacks, which helps to ensure optimal network performance and frees up IT to spend more time on strategic projects. “By standardizing on Cisco hardware, we avoided the time and expense of training IT staff to manage and troubleshoot security devices from multiple vendors,” says Nithiananthan.

PRODUCT LIST
Routing and Switching <ul style="list-style-type: none">• Cisco ISR 2821 Integrated Services Routers
Security and VPN <ul style="list-style-type: none">• Integrated firewall in Cisco ISR• Integrated intrusion detection system in Cisco ISR• Cisco VPN 3000 Series Concentrator

NEXT STEPS

HORIBA is now positioned to extend its corporate wide-area network service to locations in Europe and Asia, and to add Sprint CPE-management services in more locations. Now that HORIBA–Americas has a managed service provider that provides QoS, the company also plans to deploy VoIP throughout the North American enterprise.

“The combination of the Cisco ISR and the Sprint Global MPLS managed service creates a secure, reliable, scalable platform for all of our voice, video, and data

services,” says Nithiananthan. “We have QoS and high bandwidth—and a data services bill that is half of what it used to be.”

Get the Right Service from the Right Provider

Choosing the right service provider for managed MPLS VPN services can be vital to the business. Selecting a service provider that uses Cisco equipment in its network greatly simplifies the process of out-tasking and helps ensure consistently excellent network performance. Companies can have confidence that service providers that display the Cisco Powered logo in their promotional materials use Cisco networking equipment and technology in their networks and meet Cisco standards for network support.

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