How Cisco IT Builds End-to-End QoS into Its Network

QoS Version 2 yields consistent management and performance standards across LAN and WAN.

BUSINESS BENEFITS

- Fewer voice-application-related calls to Cisco GTRC
- The ability to more intelligently plan network capacity
- Consistent standards across Cisco's hardware and software infrastructure

"We needed a comprehensive, end-to-end solution that addressed the network consistently from the LAN edge to the enterprise WAN edge."

– Liem Nguyen, Network Engineer and Global QoS Design lead

In 1995, the Cisco® IT team began a link-by-link implementation of quality of service (QoS), a vital element of network operations. By the late 1990s, emerging voice and video applications had added urgency to the company's efforts to categorize and control network traffic. These latency-sensitive, bandwidth-intensive applications add value to Cisco business processes, but they strain network capabilities and resources. QoS became a necessity.

By 2003, Cisco IT—propelled by both business and technology drivers—was ready to develop a second version of QoS. Cisco needed to consolidate and standardize QoS across the LAN and WAN networks. The company also needed to prioritize network traffic, assure service quality for applications such as voice over IP (VoIP), and synchronize Cisco's definition of network traffic classes with those of communications and network service providers in order to identify potential cost savings.

Since the implementation of QoS V2, there have been significantly fewer voice-application-related calls to Cisco's global technical response team (GTRC). In addition, users are pleased with desktop videoconferencing quality. Support and troubleshooting are simpler worldwide.

Cisco has been able to more intelligently address network capacity planning issues. With the ability to prioritize traffic more effectively, it is possible to run high-priority and batch jobs simultaneously without negative impact on performance.

Proper design and implementation of QoS has enabled Cisco to develop consistent standards across its hardware and software infrastructure. Providing a baseline from which to work, QoS architecture drives network upgrades and, in itself, is easier to deploy across geographic regions.

Enhanced QoS supports consistent network performance and cost savings across Cisco operations around the globe.

Case Study: http://www.cisco.com/en/US/about/ciscoitatwork/case_studies/security_dl2.html

FOR MORE INFORMATION

To read the entire case study or for additional Cisco IT case studies on a variety of business solutions, visit Cisco on Cisco: Inside Cisco IT www.cisco.com/go/ciscoit

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Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems, Inc.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Europe Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: +31 0 800 020 0791
Fax: +31 0 20 357 1100

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