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

A Cisco on Cisco Case Study: Inside Cisco IT
Overview

- Challenge
  Consistently Supporting Applications across the Network

- Solution
  Developing a New Version of QOS

- Results
  Consistent QOS across the Cisco Network

- Next Steps
  Standardizing and Automating QOS Configurations
Challenge: Consistently Supporting Applications across the Network

- Lack of comprehensive, end-to-end QOS that addressed the network consistently—from user devices at the LAN edge to the WAN
- Traffic from Cisco Labs, which could be problematic, required prioritization
- Employees requiring VOIP capability over the Cisco VPN were concerned about service quality
- Communication and network service providers were not in synch with Cisco network traffic categorization
Solution: Developing a New Version of QoS

- Traffic follows defined processes as it moves from source to destination devices
- Trust/classification boundary is established at the LAN edge closest to connected devices external to the network infrastructure
- Traffic arriving at the LAN edge switch is classified as trusted / untrusted
- Applications are grouped according to priority, creating an easy-to-maintain model
Results: Consistent QOS across the Cisco Network

- Significantly fewer voice application-related calls to Cisco GTRC
- Greatly decreased support problems with applications that have strict host-to-host latency requirements
- The ability to more intelligently address bandwidth capacity issues
- Consistent QOS standards across the hardware and software
Next Steps: Standardizing and Automating QOS configurations

- Making it easier to “push” and manage QOS configurations across the enterprise through automation
- Building real-time monitoring capabilities that facilitate trouble shooting, improve the quality of reports, and further enhance network capacity planning
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