Cisco IT Case Study: Enabling Medianet Technologies

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Overview

- Challenge
  - Manage 32,000 video endpoints by 2012
- Solution
  - Enable Cisco medianet technologies in phases
- Results
  - Continuing to meet SLAs without huge staffing increases
- Next Steps
  - Enable more medianet features in more places in the network

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Challenge

Manage 35,000 video endpoints by 2012

- Automate management, troubleshooting, and provisioning to support growing number of video endpoints
- Trace an individual call in progress to find the source of congestion or jitter
- Efficiently provision tens of thousands of new video endpoints

  Including Cisco Video Surveillance IP Cameras and Cisco Digital Media Players

Solution

Enable Cisco medianet technologies in phases

- Upgraded Cisco IOS software and turned on Cisco medianet technologies
- Began with the places in the network where medianet features will have the biggest impact
- Phase 1: Enabled Performance Monitor in ~9000 Cisco Virtual Office routers

  Limited bandwidth in homes and inability to physically touch devices make good monitoring and troubleshooting capabilities essential
- Phase 2: Adding Mediatrace

  Monitors a flow from point to point across all hops

  First implementation will be in San Jose and Bangalore

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"Eventually the whole Cisco network will support mediatrace, but it's not necessary to wait to upgrade the entire network before experiencing the benefits. Every hop that's mediatrace-capable will report its status, helping engineers to identify the source of issues affecting the user experience."

Plamen Nedeltchev
Distinguished IT Engineer and Principal Architect for Borderless Networks

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Results

Continuing to meet SLAs without huge staffing increases

- Can troubleshoot quality issues during video calls, using Performance Monitor
- Simplified monitoring and troubleshooting of home office routers
- Can identify problems before they affect more people

  Alert sent when congestion or jitter exceeds a defined threshold
- Will save 2000+ hours on endpoint provisioning over 1.5 years

  Auto Smartports feature accelerates provisioning of IP cameras and digital media players from 25-45 minutes to 5 minutes

  Installers need less training

Next Steps

Enable more medianet features, in more places in the network

- Monitoring the user experience end-to-end and gaining better control of endpoints, with media services interface (MSI)
- Collecting session detail records about the user experience from MSI-capable endpoints
- Video usage modeling and more accurate capacity planning using IPSLA Video Operations (VO)
- Usage-based billing
- Unified management with Cisco Prime tools

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