

Cisco Network Assessment for Video (IP Service-Level Agreement Video Operation)



Customer Need: Video Readiness Assessment

Video is projected to quadruple IP traffic by 2014 to 767 exabytes. Organizations are increasingly using video-based applications such as employee collaboration, training, and physical surveillance. Video traffic and data traffic are fundamentally different. Video traffic is more dynamic and bandwidth intensive, and small changes in delay or small loss can cause visible disruptions to the user experience. Because of the real-time nature of interactive video, problems with the video have a very small window to troubleshoot. So the network needs to be certified “video ready” before rolling out any new video-based application or service.

A proper end-to-end assessment of network infrastructure is needed for this certification.



Technology Postcard

Feature Description: Cisco Network Assessment for Video (IP Service-Level Agreement Video Operation)

Administrators typically assess the readiness of a network by sending “test video traffic” from a source to each destination. Imagine a firm with 3 campuses and 30 branches around the world. Testing all endpoints is time consuming and expensive. Some firms even deploy a separate network to support the video-based service because they are unable to assess their existing infrastructure.

This is where the built-in Cisco® video traffic assessment tool helps. This tool is an embedded Cisco IOS® Software feature available in Cisco Catalyst® switches and Cisco Integrated Services Routers (ISRs). The feature is part of the medianet suite of functionality, which also contains mediatrace and performance monitoring features.

The Cisco Network Assessment for Video (IP SLA VO) tool provides the capability to assess the network for video applications. It sends simulated video traffic from the source switch or router to a destination switch or router in the network. The source switch or router is closest to where the video application originates. The destination switch or router is closest to the users. The test might need to be performed from multiple source and destination switches and routers.

The results can be seen on the switch where the test was initiated or through Cisco Prime™. Based on the test traffic results, IT learns the potential delay, loss, jitter, and other factors that would prevent a good quality video experience. Such end-to-end testing can be performed from a central IT location and can work across a company WAN (using Multiprotocol Label Switching [MPLS]) or public Internet if needed for remote locations. The tool has preset profiles to test IPTV, video surveillance, and videoconferencing applications. and custom profiles can be created and tested. Here is a use case that shows the benefits of Cisco Network Assessment for Video.

Use Case

- **Without Cisco Network Assessment for Video:** A firm wants to introduce video IP phones and telepresence collaboration service at three locations: San Francisco, London, and Beijing. To assess if the network is ready, IT sends local technicians to each of the three locations. IT procures the video traffic generators for the technicians or relies on the technicians to bring their own video generators to test the path between the three locations. This assessment project requires IT to allocate budget for procurement, travel, and contractors, which results in a long lead time to test and deploy the video applications.
- **With Cisco in-built assessment tool:** A firm wants to introduce video IP phones and telepresence collaboration service at three locations: San Francisco, London, and Beijing. To assess if the network is ready, the IT administrator logs into each of the access switches in these three locations from a central location or uses Cisco Prime, which automates the process. The administrator uses preset profiles to generate accurate sample video IP phone and videoconferencing traffic. The test traffic is sent between all three locations, and Cisco Prime can be used to capture the results. The administrator gets a clear picture of the end-to-end user experience and can make further recommendations. All this is done from a central location, which leads to shorter assessment time and faster deployment of the video applications. It also, of course, cuts out the costs of travel, procurement, and hiring contractors.

Benefits

1

Organizations can assess video readiness from a central location before a video application is deployed.

2

Organizations can use Cisco Network Assessment for Video to remotely assess the network. No need to travel and deploy third-party video generators for video assessment.

3

Organization can use prebuilt (IPTV, videoconferences, video surveillance) and custom profiles.

Supported Cisco Catalyst Platforms

- Cisco Catalyst 4500E
- Cisco Catalyst 3750-X
- Cisco Catalyst 3560-X
- Cisco Catalyst 4500-X
- Cisco Catalyst 6500 (can only act as destination endpoint)
- Cisco Catalyst 2960S (can only act as destination endpoint)

For More Information

http://www.cisco.com/en/US/prod/collateral/iosswrel/ps6537/ps6555/ps6602/white_paper_c11-674560.html