Cisco TelePresence Content Server

The Cisco TelePresence® Content Server enables organizations to record their video conferences and multimedia presentations for live and on-demand access. Whether it is a university lecture, a corporate training session, an executive meeting, or any other critical event—the Cisco TelePresence Content Server streamlines the process of capturing and sharing content throughout the organization.

The following questions and answers are geared toward customers of Cisco TelePresence Content Server (Content Server); they address commonly asked questions around deployment, features, and functions.

General Questions

Q. How much media storage does the Cisco TelePresence Content Server have?

A. The first-generation platform has 200 GB of storage, and the second-generation platform has 400 GB. This space is used to store both the original capture file and any output produced from the conference.

Q. Can I purchase the Cisco TelePresence Content Server as a software-only application?

A. No, the Cisco TelePresence Content Server is currently delivered with the software and hardware bundled together.

Q. How does the Cisco TelePresence Content Server determine my environment?

A. In Versions 5.0 and later, your bandwidth is detected when you open the user interface. This value is stored in a cookie and is used to determine which recording to offer when multiple bitrate recordings are available. The embedded players (Silverlight and Flash) are detected automatically, and you are prompted to download the relevant plug-in if it is missing.

If you are using the older player for the first time, the presence of the required plug-ins is not known initially. When you choose a format to play and open the older player, the relevant plug-in (Windows Media, QuickTime, or Flash) is checked and the result is stored in a cookie.

In versions before 5.0, the Content Server runs an environment check of your system the first time you log in to the Content Server, or attempts to play a video using a link. It attempts to determine the optimum viewing experience for you by determining which players are installed on the system and whether they are scriptable. It then checks the available bandwidth. While this process is in progress, “Loading Page” is displayed.

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After the environment check has been run, the results are saved in a cookie on your computer. You can force a recheck by clicking Recheck properties (formerly Re-determine User Environment) from your Preferences. This process deletes the old cookie and replaces it with a new one.

Q. Under Preferences, what do the red and green icons for the available players mean?

A. The icons show whether a particular media player is installed on your system and is ready to use.

A green icon means that the media player next to it is present on your system, it responds to script commands, and it is ready for use.

A red icon means that either the player is not installed on your system or it does not respond to script commands.

Note: If a media player is installed but has never been run (in the case of a new operating system install, for example), the player detection will fail until the player has been run once.

Q. What are the user security capabilities of the Cisco TelePresence Content Server?

A. Cisco TelePresence Content Server allows users to PIN-protect recordings that are available for watching using a videoconference endpoint.

Q. If a user is a member of a group that has creator privileges on the TCS, and that creator group is then removed or demoted back to being viewers, will that users privileges also be demoted or removed?

A. There are two scenarios where this may happen:

- The user is part of a creators group, but does not own any recording aliases. In this case, the users' privileges will be demoted with the group, as long as they don't have higher privileges as a user.
- The user is part of a group that has creator privileges, and the automatic generation of recording aliases is enabled (Version 5.2 or higher). When the user belongs to a creator group and logs in for the first time, a recording alias is generated for them which they own. Also, their user role is elevated to creator. In this case, their privileges will NOT be demoted if the group is subsequently removed or demoted.

Configuring Cisco TelePresence Content Server

Q. How is a scheduled call connected when using the Cisco TelePresence Content Server with the Cisco TelePresence Management Suite?

A. The call is always established to the Content Server from the far end to ensure correct operation with password-protected bridged calls.

Q. Can I use a different Ethernet port on my Cisco TelePresence Content Server?

A. No, you must use port 1 for Ethernet on the Content Server. The software checks to see whether port 1 is enabled and has Link status, and the Content Server may not function correctly if port 1 is not active.

Q. Is it necessary to have a gatekeeper with the Cisco TelePresence Content Server?

A. It is not strictly necessary to have a gatekeeper configured for the Cisco TelePresence Content Server. However, using a gatekeeper enables much more versatile calling and recording behavior. Specifically, if you have a gatekeeper configured for the Cisco TelePresence Content Server, you can specify which recording template to use for inbound calls by dialing the H.323, E.164, or Session Initiation Protocol (SIP) alias configured against this template.

If no gatekeeper is used, recordings made of inbound calls will use only the default Recording alias.

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Q. What is the difference between registering the Cisco TelePresence Content Server as a terminal or a gateway?

A. When registered as a terminal, the maximum number of registrations allowed to the gatekeeper from a Content Server is 25, meaning that the maximum number of recording aliases is 25. When registered as a gateway, there is no maximum.

Q. How do I configure the Cisco TelePresence Content Server with network-attached storage (NAS)?

A. When the Cisco TelePresence Content Server is configured to work with NAS, services running on the Content Server need to have access to the NAS share. You can enable this access by adding the Content Server machine credentials to the access list for the NAS share. You can enable access only if the Content Server and the machine hosting the NAS are on the same domain.

Q. What happens to the files when I use a NAS with my Content Server?

A. When using a NAS, the original recorded media is initially written to a temporary file on the Content Server local e:\ drive. When the call is finished, the original recorded media and any transcoded media (video files and thumbnails) are moved over to the NAS.

Q. Do I still need the Cisco TelePresence System Codec pack to view content on the Cisco TelePresence Content Server?

A. No. This codec pack was required for the archived calls featured in Cisco TelePresence Content Server S2.0. All recordings in Content Servers S3.0, S4.0, and 5.0 are now transcoded into a streaming format. These formats follow:

- Windows Media
- QuickTime (MPEG-4)
- RealPlayer (Versions 4.0 and earlier)

Q. How does protocol rollover work on Windows Media Player, and how does it affect the Cisco TelePresence Content Server?

A. Windows Media Player uses the protocol rollover mechanism to offer alternative transport protocols if a chosen protocol is not available or fails. The three protocols available follow:

- MMS: Microsoft Media Server (port 1755)
- RTSP: Real Time Streaming Protocol (port 554)
- HTTP: Hypertext Transport Protocol (port 8080 on the Content Server)

When the player tries to connect to the Windows Media Server of the Cisco TelePresence Content Server from a URL with mms://ip_address/file.wmv, it tries to use RTSP on port 554. If that fails, it tries to connect using MMS (port 1755) for information about which protocols are available. If HTTP is enabled, the player then tries to connect through HTTP on port 80. (Note that the Content Server offers HTTP streaming on port 8080 because port 80 is used by other web services, such as the main page). If this connection attempt fails, the player is unable to connect to the server.

If an alternate port is configured for RTSP, the player will not retry RTSP on the alternate port, even after negotiating available protocols during the MMS information exchange.

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Questions About Streaming

Q. For which formats is multicast streaming supported?

A. Multicast steaming is supported for Windows Media and MPEG-4 (QuickTime) formats for live conferences hosted directly off the Cisco TelePresence Content Server. For multicast streaming to function correctly, a valid and available IP address must be used and the network needs to be multicast-enabled. The multicast address range is from 224.0.0.1 to 239.255.255.255.

Q. How is multicast streaming different from unicast on the Cisco TelePresence Content Server?

A. Unicast streaming has one client per stream, and that stream travels from the server to the client. Therefore, the demand on the server increases for each concurrent viewer. Each viewer's experience is unique. An example is on-demand movies, such as in-room movies that hotels provide. The viewer usually has the option to seek through the clip as desired.

Multicast streaming can have multiple clients per stream. The stream is made available by network devices (switches and routers) as required. Your experience is not unique because many viewers can subscribe to the same multicast session. You do not have the option to seek though the clip.

The demand on the server is constant regardless of how many concurrent viewers there are because the stream is duplicated by switches and routers as necessary.

Please note that multicast delivery requires a multicast-enabled network.

Q. How do I handle a large number of simultaneous unicast clients?

A. You have two options:

- Use an external media server dedicated to providing just the media streams for the viewing clients. You can provision it with a large network bandwidth and will not have competition for resources from other applications, such as transcoding and recording, running on the machine.
- The other option is to use a Content Distribution Network. These service providers host the media on their network and can deal with very large numbers of users.

Q. How is Flash media delivered?

A. Delivery for Flash video is by HTTP and progressive download, or by streaming using an external streaming server. Currently only Wowza (Version 1.7.2 or later) is supported for streaming Flash media.

Please note that Flash player Version 9 Update 3 or later is required to play Flash media for Cisco TelePresence Content Server Version 4.0, whereas Flash player Version 10 is required for Cisco TelePresence Content Server Version 5.0.

Q. What is a progressive download?

A. Progressive download is when a clip is completely downloaded from the beginning of the clip. This format is how QuickTime, MPEG-4, and Real Media are delivered for on-demand recordings, directly (where no external media server is used) from the Content Server. When viewing progressive downloads, you cannot seek to the end of the recording until the download is finished.

Streaming delivers the clip in smaller pieces, with the option (depending on streaming server settings) to burst-transfer the clip to allow a faster play start and seeking behavior. Streaming usually downloads only the part of the clip you are watching, rather than the whole file.

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By default, when viewing Windows Media clips using the Content Viewer, recordings are delivered through streaming.

Q. Can I seek in the Cisco TelePresence Content Server Content Viewer during a progressive download?

A. No, you cannot seek to the end of a recording in the Content Viewer if the recording is a progressive download instead of a streamed recording. This occurs when you are viewing a recording being delivered by the local Internet Informations Services (IIS) web server on the Content Server.

Q. Is there support for a static URL for live streaming of MPEG-4 for Flash content?

A. Yes, Cisco TelePresence Content server supports a static URL for live streaming of MPEG-4 for Flash content from a Wowza Media Server. If the live stream URL needs to be published before streaming starts, Site Managers can now enter a stream name in the Static stream name field on the Media server configuration: Wowza Media Server for Flash > Live unicast streaming settings page. The resulting URL is generated and displayed on the page, for example: rtmp://myWowza/live/mp4:mystream.

Interoperability, Integration, and Compatibility

Q. Does Cisco TelePresence Content Server integrate with the Media Experience Engine 3500?

A. Yes. With release 5.2 of the Cisco TelePresence Content Server, users can now make a recording and upload it automatically to a Cisco Media Experience Engine 3500 server for further transformation and publishing. The recording will be copied to Media Experience Engine 3500 using FTP on completion of a call and then transformed based on the profile selected in the server configuration.

Q. Does Cisco TelePresence Content Server support SIP?

A. Yes. The second video channel is also supported over SIP, using the Binary Floor Control Protocol (BFCP). Cisco TelePresence Video Communication Server and OpenSER are the officially supported SIP registrars.

Q. Does the Cisco TelePresence Content Server support Simple Network Management Protocol (SNMP)?

A. Currently, the Cisco TelePresence Content Server does not support SNMP.

Q. Is the Cisco TelePresence Content Server compatible with Macs?

A. Yes. The Cisco TelePresence Content Server is fully compatible with the Safari and Firefox Mac OS browsers. Support for streaming is provided by QuickTime using the MPEG-4 codec and Windows Media using the Silverlight plug-in.

You should refer to version-specific information for detailed information about support for a particular release, because older versions of browsers and plug-ins are not necessarily supported in newer Content Server releases.

Q. Can I use a database other than Microsoft Structured Query Language (SQL) with the Cisco TelePresence Content Server?

A. Only Microsoft SQL is supported for the Content Server, and it is preinstalled for you. Oracle and OpenSQL are not supported, for internal or external databases.

Q. Can I use an external media server with the Cisco TelePresence Content Server?

A. Yes. Cisco TelePresence Content Server supports external media streaming servers for Windows Media, QuickTime, Wowza (Cisco TelePresence Content Server S4.0 and later) and RealPlayer (Cisco TelePresence Content Server versions before 5.0.) Support for RealPlayer has been discontinued beginning with Version 5.0.

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For More Information

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