

Cisco Expressway Series and Cisco Video Communication Server

Release X8.1 and above

Frequently Asked Questions

Overview

- Q.** What is Cisco Expressway Series?.
- A.** Cisco® Expressway is an advanced collaboration gateway designed for Cisco Unified Communications Manager (Unified CM), Cisco Business Edition and Cisco Hosted Collaboration Solution (HCS). It performs highly secure firewall traversal, allowing business-to-business (B2B) collaboration, Jabber Guest and VPN-less Jabber mobile and teleworker collaboration.
- Q.** What Cisco call/session control platforms does Expressway support and which versions should I use?
- A.** Expressway supports Cisco Unified Communications Manager and Business Edition versions 9.1.2 or later. Expressway also supports Cisco HCS version 9.2.1 or later. Note that versions 10.0 and higher are recommended.
- Q.** How is Cisco Expressway Series different from the current Cisco TelePresence® Video Communication Server (VCS) Family (Cisco VCS Control and VCS Expressway)?
- A.** The Cisco Expressway Series is positioned and licensed explicitly to customers using Cisco Business Edition, Cisco Unified Communications Manager or Cisco HCS to provide network edge collaboration capabilities.

There are many similarities, but Cisco Expressway Series is a separate product line that builds on the firewall traversal capabilities of VCS, explicitly allowing mobile and remote access to video, voice, instant messaging, presence, and content sharing, without the need for a separate VPN client.

The Cisco VCS Family offers a superset of Cisco Expressway functionality that will continue as a separate product line, offering additional video call control, session management, and device-provisioning capabilities that are useful in standalone and complex legacy video applications. It also features advanced security options such as JITC- and FIPS 140-2-compliant features, which will continue to make VCS the platform of choice for many federal and security-conscious customers. Cisco VCS can also be integrated with Cisco Unified CM and Business Edition as part of a unified, call-control solution.

- Q.** Why has Cisco created a separate product line?
- A.** Cisco Expressway Series is a simplified proposition targeted at the vast majority of Cisco Unified CM, and Business Edition and Cisco HCS customers who do not have existing Cisco VCS infrastructure. It allows for simplified deployments with all endpoints and applications registered to Cisco call/session control platforms for consistent call-control features and ease of management.

The advanced registration, call control, and session management features in the VCS Family may not be required in these scenarios, so by removing this functionality from the Expressway Series we are able to offer a simpler, more cost-effective and competitive licensing model for the Cisco Expressway Series.

- Q.** Why did Cisco call it Cisco Expressway Series when we already have VCS Expressway?
- A.** There were many considerations when we chose the name, but essentially we wanted to recognize the heritage from the VCS Family. The two primary reasons are stated below.
- VCS Expressway features proven firewall traversal technology that has been deployed by thousands of organizations since its launch. Our competitors would like to position Cisco as being late to market with this solution, when in fact we have been able to provide VPN-less access using transport layer security (TLS) for video for some years now (for example, for Jabber Video for TelePresence (Movi) clients). We have simply extended this capability to our Jabber unified communications clients and TelePresence TC endpoints registered to Cisco Unified Communications Manager/Business Edition.
 - Partners and customers who are familiar with VCS will also be familiar with the Cisco Expressway Series. With a common code base, they share many common features and user interfaces. Partners and customers can take advantage of their existing investments in VCS technology and training to add the Expressway Series to their portfolios with minimal additional investment. Using the Expressway name reinforces that assertion.
- Q.** Is Cisco Expressway Series a two-server solution like Cisco VCS Control and VCS Expressway?
- A.** Yes, Cisco Expressway-C sits inside the enterprise network, acting as a firewall traversal client. Cisco Expressway-E, the traversal server, sits outside the corporate firewall, typically in the perimeter, or DMZ.
- Q.** Can I mix and match VCS Family and Expressway Series servers? For example, can I have a VCS Control server inside the network and an Expressway - E server in the DMZ?
- A.** No, for firewall traversal a VCS Control server must be paired with a VCS Expressway server, and an Expressway-C server must be paired with an Expressway-E traversal server.

Also note that all servers in a cluster must be of the same type.

- Q.** For the new mobile and remote access solution, what happens outside the firewall to avoid the need for a separate VPN client such as Cisco AnyConnect®?
- A.** AnyConnect can secure the entire device and its contents. Expressway and VCS utilize a session-based security model (TLS) to secure and encrypt only the collaboration application(s) and media.

Expressway and VCS can secure the voice and media similar to the way that data and email are secured - using a socket-based type of security model. Unlike AnyConnect, Expressway and VCS can secure all "sockets" in the application the person is using. Another way to say this is that Expressway and VCS can secure all connections in each application, not the entire device. They use TLS to secure and encrypt the SIP signaling and the media, described in the steps below :

- a) Signaling and call setup are secured back to the enterprise using Expressway or VCS
- b) Next, authentication and provisioning are secured by Expressway/VCS and the appropriate Cisco call/session control platform
- c) Then, media is secured over the Internet through encryption

With Expressway and VCS, administrators have a choice of how their users connect. Teleworkers who use Cisco TelePresence endpoints, or mobile workers who use Cisco Jabber, may choose to use a VPN client like AnyConnect, or connect via Expressway or VCS.

For some mobile Jabber users, AnyConnect may still be the best solution. These users typically have corporate-owned laptops with sensitive data, or who require access to corporate applications and databases. Or they may need to record calls for compliance purposes.

At other times, Expressway or VCS is an ideal solution. It greatly simplifies deployments if IT has many employee-owned devices that do not require the entire device and its contents secured. End users can have easy and highly secure access to Jabber services with their personal data kept separate. It is also ideal for users who do not want to go through the extra steps of setting up the VPN before collaborating with Jabber.

For others, both solutions may be required. At times, users may want the simplicity of collaborating with Jabber instantly without setting up a VPN. However, at other times those same users may have sensitive information that they want to access through their VPN connection, and collaborate at the same time. Once they are in the VPN, they can just use Jabber.

Q. Which endpoints and applications are supported by Cisco Expressway and Cisco VCS VPN-less mobile and remote access?

A. It is anticipated that the first phase of releases of clients that will support the Expressway mobile and remote access functionality will include:

- TelePresence endpoints which run TC software
- Jabber for Windows
- Jabber for iOS (iPad and iPhone)
- Jabber for Android

The relevant versions of these clients are expected to be released during early calendar year 2014. For customers requiring VPN-less connectivity for Cisco SIP phones, Cisco Unified Border Element (CUBE) should be used.

Q. In the Cisco Expressway X8.1 and Cisco VCS X8.1 release notes, the mobile and remote access solution is described as a preview feature only. Why?

A. At the time of first customer ship (FCS) of Expressway and VCS Version 8.1 in December 2013, there has been insufficient in-house and customer solution-level testing, with released versions of the different endpoints and clients that will support Expressway VPN-less mobile and remote access. This required solution testing will continue through the first quarter of calendar year 2014. If any maintenance releases are required to Version X8.1 to support the relevant clients, they will be made available to download. At that point, the feature will be fully supported and deployment guides will be published.

Q. I have existing Cisco VCS Control and VCS Expressway Customers who want to take advantage of the new VPN-less access functionality for Jabber and Cisco TelePresence endpoints. What should I recommend to them?

A. Cisco VCS fully supports this functionality so customers can upgrade their VCS servers to Version X8.1.

Due to the differences in the way that Cisco Expressway is licensed, some customers may see a cost advantage in deploying new Expressway servers, instead of scaling with additional VCS capacity.

Q. How is Cisco Expressway Series licensed?

A. First, customers licensed for the appropriate versions of Cisco Business Edition or Cisco Unified Communications Manager or Cisco HCS are entitled to order and use the Expressway-C and Expressway-E server software (virtual machines) at no additional cost, as long as they have a valid support agreement.

Second, customers with Unified Communications Licensing (UCL) Enhanced, Enhanced Plus, Cisco Unified Workspace Licensing (CUWL) Standard, or CUWL Professional licenses will be able to use Cisco Expressway software to provide mobile and remote access for Jabber clients and Cisco TelePresence endpoints registered to Unified Communications Manager or Business Edition. Cisco partners using Cisco HCS Foundation and Standard license bundles can use Cisco Expressway software to provide mobile and remote access for Jabber clients and Cisco TelePresence endpoints registered to Cisco HCS.

Finally, customers will need to purchase a la carte Expressway Rich Media Session licenses for concurrent calls to endpoints which are not registered to Unified Communications Manager or Business Edition or Cisco HCS. Examples include B2B calls, Jabber Guest and 3rd party interworking calls.

- Q.** Can Cisco VCS customers migrate to the Cisco Expressway Series?
- A.** It is unlikely they would need to migrate. As described earlier, VCS customers can upgrade to Version X8.1 to get the mobile and remote access functionality.

However, if they want to upgrade, VCS customers with Business Edition or Unified Communications Manager Version 9.1.2 or later will be able to deploy new Expressway virtual machines at no additional cost. They will also be able to take advantage of the Cisco converged call control investment protection program to migrate VCS non-traversal calls into Unified Communications Manager registrations, if required.

Note: Any H.323 devices registered to Cisco VCS would need to remain on Cisco VCS as Cisco Expressway Series does not support registrations.

- Q.** Do Cisco Expressway Series and Cisco VCS Version X8.1 and above support Microsoft Lync 2013 video interoperability?
- A.** Cisco Expressway and VCS Version X8.1 support interworking Microsoft's implementation of H.264 SVC with the widely deployed H.264 AVC standard. Customers who require this capability will need to purchase the Microsoft Interoperability Option Key and the relevant number of concurrent Cisco Expressway or VCS a la carte licenses.

For more interoperability specifics, please see our deployment guides:

http://www.cisco.com/c/dam/en/us/td/docs/telepresence/infrastructure/vcs/config_guide/X8-1/Cisco-VCS-Microsoft-Lync-Deployment-Guide-X8-1.pdf.

- Q.** Does Expressway and Cisco VCS support business-to-business interoperability with Microsoft Lync 2013?
- A.** At this point in time, Cisco Expressway and VCS only support interworking of Microsoft's implementation of H.264 SVC within the organization – not beyond it to customers, partners, suppliers, etc. However, please check regularly as this functionality is being tested and support is coming.
- Q.** Does VCS and Expressway support third party H.323 and SIP video endpoints?
- A.** VCS has always supported third party H.323 and SIP video endpoints. Cisco Expressway does not support endpoint registration so VCS is required for those environments.
- Q.** Do Cisco TC series endpoints require a specific software version to interoperate with third party video endpoints?
- A.** No.

- Q.** Is Cisco Expressway part of the Jabber Guest public-to-enterprise solution?
- A.** Yes, Cisco Expressway provides highly secure, encrypted firewall traversal capabilities for Jabber Guest.
- Q.** Why isn't Expressway Series supported in WebEx Enabled TelePresence?
- A.** The current recommended deployment for WebEx[®] Enabled TelePresence requires a multipoint control unit (MCU) or TelePresence Server registered to Cisco VCS. Cisco Expressway Series does not support registrations and so cannot be used in place of Cisco VCS.

Expect that Cisco Expressway will be supported in the WebEx Enabled TelePresence solution later in calendar year 2014.

- Q.** Are Cisco Expressway and Cisco VCS available as virtualized applications and as appliances?
- A.** Cisco Expressway and Cisco VCS are available as .ova files for installation on Cisco UCS[®] and specification-based, third-party servers. Three different capacity options are available upon installation for small-, medium-, and large-scale deployments. See the Cisco Expressway and VCS deployment guides for more information on the number of cores, memory, disk space requirements, etc.

Cisco Expressway and VCS can now also be available for deployment on the Cisco Integrated Services Router (ISR) using the Cisco UCS E-Series.

Also, both Cisco Expressway and VCS are also available as a dedicated, bare-metal appliance. These bare-metal appliances (for example, no hypervisor) are ideal for customers who do not want virtualized servers in their DMZ or those who prefer to deploy a dedicated appliance. The new appliances are only available with Expressway and VCS version 8.1.1 and above.

- Q.** I understand Cisco Expressway and Cisco VCS are part of the Cisco Collaboration Edge Architecture. What is that?
- A.** Cisco Collaboration Edge Architecture is a set of features and services that help bridge islands to support any-to-any collaboration. The architecture lays the foundation for our customers, no matter what their size, to collaborate with anyone anywhere, on any device using any workload. Its success relies on simplicity, security, and open standards and interoperability to break down barriers between these islands.

The Collaboration Edge Architecture supports a broad set of use cases:

- Remote and mobile worker collaboration – extends and simplifies collaboration outside the corporate network for remote and mobile workers. Allows them to more securely collaborate like they are in the office on any device anywhere, without requiring a separate VPN client and connection from a device to the network
- B2B and B2C collaboration – borderless, rich-media collaboration with outside organizations and consumers
- IP PSTN and PSTN connectivity – communicate with anyone through a service provider TDM or through SIP Trunking
- Intra-enterprise connectivity – extend collaboration services within the enterprise to users on PBXs, IP PBXs, and third-party devices, even analog devices
- Cloud connectivity – connect to the cloud and enjoy all of the any-to-any benefits of Cisco premise-based solutions

These use cases can be enabled by products throughout our portfolio to provide the best user experiences and the broadest reach. Products include Cisco TDM and Analog Gateways, Cisco Unified Border Element (CUBE), Cisco Expressway, and Cisco VCS, to name a few.

- Q.** Is the Collaboration Edge Architecture new?
- A.** The architecture was introduced in October 2013 although we have had much of its capabilities since before this time. Cisco Expressway and its enhancements have allowed us to offer a complete architectural solution.

The architecture combines the new capabilities of Cisco Expressway with the current capabilities of Cisco Collaboration to deliver the industry's most comprehensive any-to-any solution on the market.

Current capabilities include technologies such as TDM and analog gateway, session border control, features on Unified Communications Manager like Extend and Connect, WebEx Enabled TelePresence, B2B communications, and more.



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