



How To Use This Guide

The purpose of this guide is to help you configure and troubleshoot connections between infrastructure components related to Expressway deployments.

There is a section for each of the popular Expressway deployments. Each has a diagram showing the major infrastructure components and the connections between them, and also lists the connections in a table format.

The deployments build on each other where necessary. For example, if you want to implement Mobile and Remote Access (MRA), you first configure a traversal pair. These relationships are described in the relevant deployment guides.

References in the guide to TLS (transport layer security protocol) as transport, in the context of Expressway effectively mean the same thing as the underlying TCP transport protocol on which TLS is built.

This chapter explains the following:

- [Change History, on page 1](#)
- [Related Documentation, on page 2](#)

Change History

Table 1: Cisco Expressway IP Port Usage Configuration Guide Change History

Date	Change	Reason
January 2024	Addressed CDETS - Includes updates for X14.3 and X15.0	X15.0 release
May 2020	Updated for X12.6	X12.6 release
April 2020	Correction	Fix entry for Tunneled media in Web Proxy for Meeting Server Port Reference table from port 443 to 3478. Also clarify TLS as transport is the same thing as TCP in context of this guide.
March 2020	Correction	Add missing Webbridge signaling entries to Web Proxy for Meeting Server Port Reference table.
February 2020	Correction	MRA connection for Headset Configuration file fixed to HTTPS/TLS.

Date	Change	Reason
December 2019	Update	In the Point to Point Microsoft Interoperability Using Meeting Server diagram, show media paths both with and without Meeting Server load balancing.
July 2019	Update	Updated the MRA Connections for Headset Management.
May 2019	Update	NAT reflection is not needed for Web Proxy for CMS connection (only for standalone Expressways).
February 2019	Update	Added details on how to configure NAT reflection on firewall for Web Proxy for Meeting Server.
January 2019	Updated for X12.5	X12.5 release. ACME certificates, SIP OAuth, and ICE passthrough for MRA.
September 2018	Update	Updated software version from X8.11 to X8.11.1 (version X8.11 withdrawn).
August 2018	Corrections	Errors in IM&P Federation with Microsoft Clients and Web Proxy for Cisco Meeting Server connections.
July 2018	Updated for X8.11	X8.11 release
April 2018	Corrections	Errors in SIP Edge for CMS media connections.
December 2017	Corrections	For SIP traversal calls, B2BUA on Expressway-C may need to make TURN requests to Expressway-E.
November 2017	Corrections	Errors in Web Proxy media connections.
July 2017	Update	X8.10 release. TURN listening port configurable to 443.
April 2017	New document	New format for information previously held in <i>Expressway IP Port Usage for Firewall Traversal</i> .

Related Documentation

Table 2: Links to Related Documents and Videos

Support Videos	Videos provided by Cisco TAC engineers about certain common Expressway configuration procedures are available on the Expressway/VCS Screencast Video List page.
Installation - Virtual Machines	<i>Cisco Expressway on Virtual Machine Installation Guide</i> on the Expressway install and upgrade guides page

Installation - Physical Appliances	<i>Cisco Expressway CE1200 Appliance Installation Guide</i> on the Expressway install and upgrade guides page
Basic configuration for registrar / single systems	<i>Cisco Expressway Registrar Deployment Guide</i> on the Expressway configuration guides page
Basic configuration for firewall traversal / paired systems	<i>Cisco Expressway-E and Expressway-C Basic Configuration Deployment Guide</i> on the Expressway configuration guides page
Administration and maintenance	<i>Cisco Expressway Administrator Guide</i> on the Expressway maintain and operate guides page <i>Cisco Expressway Serviceability Guide</i> on the Expressway maintain and operate guides page
Clusters	<i>Cisco Expressway Cluster Creation and Maintenance Deployment Guide</i> on the Expressway configuration guides page
Certificates	<i>Cisco Expressway Certificate Creation and Use Deployment Guide</i> on the Expressway configuration guides page
MRA	<i>Mobile and Remote Access Through Cisco Expressway</i> on the Expressway configuration guides page
Cisco Meeting Server	<i>Cisco Meeting Server with Cisco Expressway Deployment Guide</i> on the Expressway configuration guides page <i>Cisco Meeting Server API Reference Guide</i> on the Cisco Meeting Server programming guides page Other Cisco Meeting Server guides are available on the Cisco Meeting Server configuration guides page
Cisco Webex Hybrid Services	Hybrid services knowledge base
Cisco Hosted Collaboration Solution (HCS)	HCS customer documentation
Microsoft infrastructure	<i>Cisco Expressway with Microsoft Infrastructure Deployment Guide</i> on the Expressway configuration guides page <i>Cisco Jabber and Microsoft Skype for Business Infrastructure Configuration Cheatsheet</i> on the Expressway configuration guides page
Rest API	<i>Cisco Expressway REST API Summary Guide</i> on the Expressway configuration guides page (high-level information only as the API is self-documented)

Multiway Conferencing	<i>Cisco TelePresence Multiway Deployment Guide</i> on the Expressway configuration guides page
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