

# Cisco Expressway Series

## Advanced Collaboration Gateways for Simple and Secure Unified Communications

### Product Overview

Cisco® Expressway Series gateways for Cisco Unified Communications Manager (Unified CM) and Business Edition 6000 (BE 6000) help ensure that collaboration outside the enterprise is as simple and secure as on-premises collaboration.

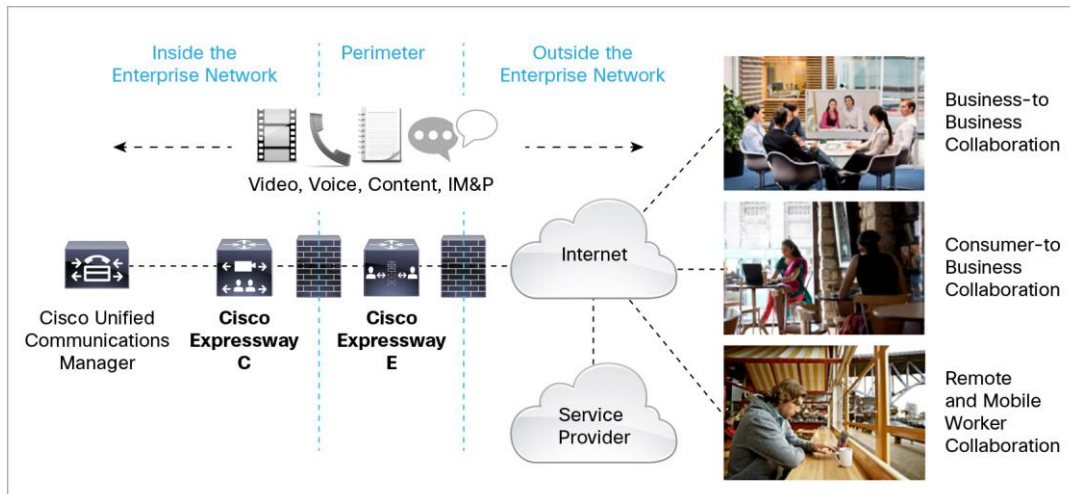
Strengthen relationships with customers, partners, and suppliers with secure, intuitive, and open business-to-business (B2B) collaboration, featuring rich video capabilities to enhance understanding and speed decision-making. Cisco Expressway helps enable communication with third parties using a wide range of standards-based endpoints and unified communications applications. This capability can also be provided to any guest, consumer or B2B, as part of a Cisco Jabber® Guest solution, featuring browser-based video collaboration.

Embrace and accelerate workforce mobility trends by providing access to collaboration services from anywhere, on a range of devices with Cisco Jabber Unified Communications clients. Cisco Expressway Series supports comprehensive multimodal collaboration, featuring a mix of video, voice, content, instant messaging and presence (IM&P).

Cisco Expressway provides secure mobile access based on Transport Layer Security (TLS), without the need for a separate VPN client, simplifying the user experience while complementing common IT department bring-your-own-device (BYOD) security policies.

Figure 1 illustrates a deployment with Cisco Expressway-C and Cisco Expressway-E forming a secure traversal link enabling video, voice, content and IM&P collaboration outside the firewall. Cisco Expressway works with most firewalls and complements existing security policy, requiring only minimal firewall configuration.

**Figure 1.** Cisco Expressway Series Deployment with Unified CM



Cisco Expressway Series software supports flexible deployment options and is available as a virtualized application for VMware or similar virtual environments.

## Features and Benefits of Cisco Expressway

- **Increased competitiveness:** Cisco Expressway helps enterprises become more competitive with real-time video, voice, content, and IM&P collaboration beyond the firewall.
- **Enhanced workforce mobility:** Cisco Expressway embraces mobility and device proliferation trends. It provides simple and secure access for a range of Cisco Jabber Unified Communications clients, without the need for a separate VPN client, complementing common BYOD strategies.
- **Improved productivity and agility:** Cisco Expressway empowers people to collaborate with colleagues, customers, and partners in a more timely and effective manner while helping reduce travel costs.
- **Interoperability:** Cisco Expressway Series supports open standards, and provides interworking between disparate systems to help enhance return on your existing investments and increase the number of contacts who you can connect with. Supported standards include IPv4 to IPv6, H.323 to Session Initiation Protocol (SIP), and Microsoft Lync 2013 H.264 SVC to AVC.
- **Scalability:** Cisco Expressway supports businesses of all sizes as part of a BE 6000 solution or an enterprise Unified CM deployment. Mobile and remote access using Cisco Expressway is included as part of a Cisco Unified Workspace Licensing (CUWL) or Cisco User Connect Licensing (UCL) agreement.

## Features and Benefits

**Table 1.** Features and Benefits

Feature	Benefit
<b>User Interface</b>	
<b>Web browsers supported</b>	<ul style="list-style-type: none"> <li>• The web interface supports Internet Explorer 8 or 9; Firefox 3 or later; and Chrome.</li> </ul>
<b>Management interfaces</b>	<ul style="list-style-type: none"> <li>• Support for industry standards such as HTTP and Secure HTTP (HTTPS), XML, Simple Network Management Protocol (SNMP v1, v2, and v3), Secure Copy Protocol (SCP), and Secure Shell (SSH) Protocol</li> <li>• Embedded setup wizard for initial configuration</li> <li>• Support for call logging and diagnostics</li> <li>• Local time-zone-aware</li> </ul>
<b>Language</b>	<ul style="list-style-type: none"> <li>• English, Chinese (Simplified), French, German, Japanese, Korean, Russian and Spanish</li> </ul>
<b>Firewall Traversal</b>	
<b>Traversal services</b>	<ul style="list-style-type: none"> <li>• Cisco Expressway technology</li> <li>• STUN discovery and STUN relay services</li> <li>• Firewall traversal STUN-compliant</li> <li>• H.460.18/19-compliant</li> <li>• H.460.18 client-proxy support</li> <li>• Support for H.460.19 multiplexed media</li> <li>• SIP support</li> </ul>
<b>Remote collaboration services supported</b>	<ul style="list-style-type: none"> <li>• XMPP for IM</li> <li>• HTTPS for logon, provisioning and configuration, contact search, and visual voicemail services</li> <li>• SIP for session establishment, register, and invite using Unified CM</li> <li>• Real-Time Transfer Protocol (RTP) and Secure RTP (SRTP) for audio and video</li> <li>• Binary Floor Control Protocol (BFCP) for content sharing</li> </ul>
<b>Network</b>	<ul style="list-style-type: none"> <li>• Support for Domain Name System (DNS) addressing</li> <li>• Support for IPv4 and IPv6 simultaneously</li> <li>• Support for IPv4 and IPv6 translation services</li> </ul>

Feature	Benefit
<b>Scalability and Capacity</b>	
<b>Single Cisco Expressway virtual-machine capacity: (Small and medium deployments)</b>	<ul style="list-style-type: none"> <li>The capacity of one Cisco Expressway (small and medium virtual machine) follows: <ul style="list-style-type: none"> <li>Up to 2500 proxied registrations to Unified CM</li> <li>Up to 100 video calls or 200 audio calls</li> </ul> </li> </ul> <p><b>Note:</b> The maximum number of calls interworked to Microsoft Lync is 100. It is highly recommended that a dedicated Cisco Expressway-C server be deployed for use as a dedicated Microsoft Lync gateway.</p>
<b>Single Cisco Expressway virtual-machine capacity: (Large deployments)</b>	<ul style="list-style-type: none"> <li>The capacity of one Cisco Expressway (large virtual machine) follows: <ul style="list-style-type: none"> <li>Up to 5000 proxied registrations to Unified CM</li> <li>Up to 500 video calls or 1000 audio calls</li> </ul> </li> </ul> <p><b>Note:</b> The maximum number of calls interworked to Microsoft Lync is 100. It is highly recommended that a separate Expressway-C server be deployed for use as a dedicated Microsoft Lync gateway.</p>
<b>Clustered Cisco Expressway capacity</b>	<ul style="list-style-type: none"> <li>Up to 6 Cisco Expressway appliances and virtual machines can be clustered to increase capacity and provide redundancy.</li> <li>Clustering increases the maximum call capacity by up to 4 times.</li> </ul>
<b>System Security and Resilience</b>	
<b>Security features</b>	<ul style="list-style-type: none"> <li>Secure management with HTTPS, SSH, and SCP</li> <li>Secure file transfer</li> <li>Inactivity timeout</li> <li>Capability to lock down IP services</li> <li>Authentication required on HTTP(S), SSH, and SCP</li> <li>H.235 authentication support</li> <li>Transport Layer Security (TLS) for SIP signaling</li> <li>Roles-based password-protected GUI user access</li> <li>Capability to enforce strict passwords</li> <li>Capability to disable root access over SSH</li> <li>Automated intrusion protection</li> </ul>
<b>Resilience and reliability</b>	<ul style="list-style-type: none"> <li>Capability to deploy Cisco Expressway in a redundant (6) cluster</li> <li>Capability to share licenses across a cluster</li> <li>Capability to replicate configuration for clusters</li> </ul>
<b>Supported RFCs</b>	
<b>RFC</b>	<ul style="list-style-type: none"> <li>2543, 3261, 3264, 1889, 3265, 3325, 3515, 3891, 3892, 2327, 4566, 5626, 5627, 5389, and 5766</li> </ul>

## Product Specifications

Table 2 lists the Cisco Expressway virtualized application specifications.

**Table 2.** Cisco VCS Expressway Virtualized Application Specifications

Product Feature	Product Specification		
<b>Virtualized Application Specifications</b>			
<b>Servers for virtual environment</b>	<ul style="list-style-type: none"> <li>Cisco Unified Computing System™ (Cisco UCS®) B- or C-Series servers or third-party servers that meet the minimum requirements</li> <li>VMware vSphere or vCentre server running ESXi</li> </ul> <p>For full details of host requirements, refer to the Cisco Expressway Series Virtual Machine Deployment Guide.</p>		
<b>Virtual-Machine Host Requirements</b>	<b>Small Deployment (for Cisco BE 6000 platform)</b>	<b>Medium Deployment (typical installation)</b>	<b>Large Deployment (performance and scalability)</b>
<b>vCPU</b>	2 core	2 core	8 core
<b>Reserved CPU resource</b>	3600 MHz (2 x 1.8 GHz)	4800 MHz (2 x 2.4 GHz)	26400 MHz (8 x 3.3 GHz)
<b>Reserved RAM</b>	4 GB	6 GB	8 GB
<b>Disk space</b>	132 GB	132 GB	132 GB
<b>Network interface card</b>	1 Gb	1 Gb	10 Gb

## Licensing Information

Cisco Expressway Series virtual application software is available at no additional charge to customers who have a license and valid support contract for Cisco Unified Communications Manager 9.1.2 or later.

Standard and Professional Edition CUWL or Enhanced and Enhanced Plus Cisco UCL agreements support remote and mobile access to UCM services for Jabber Unified Communications clients using Cisco Expressway.

Each concurrent call session terminating on a system not using Cisco Unified Communications Manager (for example, B2B calls) requires a Cisco Expressway Rich Media Session license.

Each concurrent call requiring interworking requires a Cisco Expressway Rich Media Session license. Examples of such calls include H.323 to SIP interworked calls or H.264 SVC-to-H.264 AVC calls

## Ordering Information

To order Cisco Expressway, visit the [Cisco Ordering Home Page](#) and refer to Table 3.

**Table 3.** Ordering Information for Cisco Expressway

Product Name	Part Number
<b>Cisco Expressway Series Virtualized Applications</b>	
<b>Cisco Expressway-C Virtual Edition</b>	EXPWY-VE-C-K9
<b>Cisco Expressway-E Virtual Edition</b>	EXPWY-VE-E-K9
<b>Ordering options for Cisco Expressway Series</b>	
<b>Cisco Expressway Rich Media Session License</b> (Required for concurrent calls to/from any endpoint or application not registered to Cisco Unified Communications Manager. For example, Business to Business Calls, Jabber Guest Calls. Also required for interworked calls e.g. H.323 to SIP, H.264 AVC to H.264 SVC)	LIC-EXP-RMS
<b>Enhanced Microsoft Collaboration key for Cisco Expressway</b> (Required to enable Microsoft Lync Gateway functionality)	LIC-EXP-MSFT

## Service and Support

Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco Services can help you protect your network investment, optimize network operations, and prepare your network for new applications to extend network intelligence and the power of your business. For more information about Cisco Services, visit [Cisco Technical Support Services](#) online.

## For More Information

For more information about the Cisco Expressway Series, please visit <http://www.cisco.com/go/expressway> or contact your local Cisco account representative or authorized Cisco partner. Product specifications are estimates and subject to change without notice.




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