exponential-e
APPLIED INNOVATION

UCaaS powered by Cisco Webex

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Table of Contents

1. Document Control Information

1.1 Document Details

VERSION	DESCRIPTION	DATE	APPROVED BY
1.0	Initial Document Creation	22/08/2022	Masoud Shahrokhi

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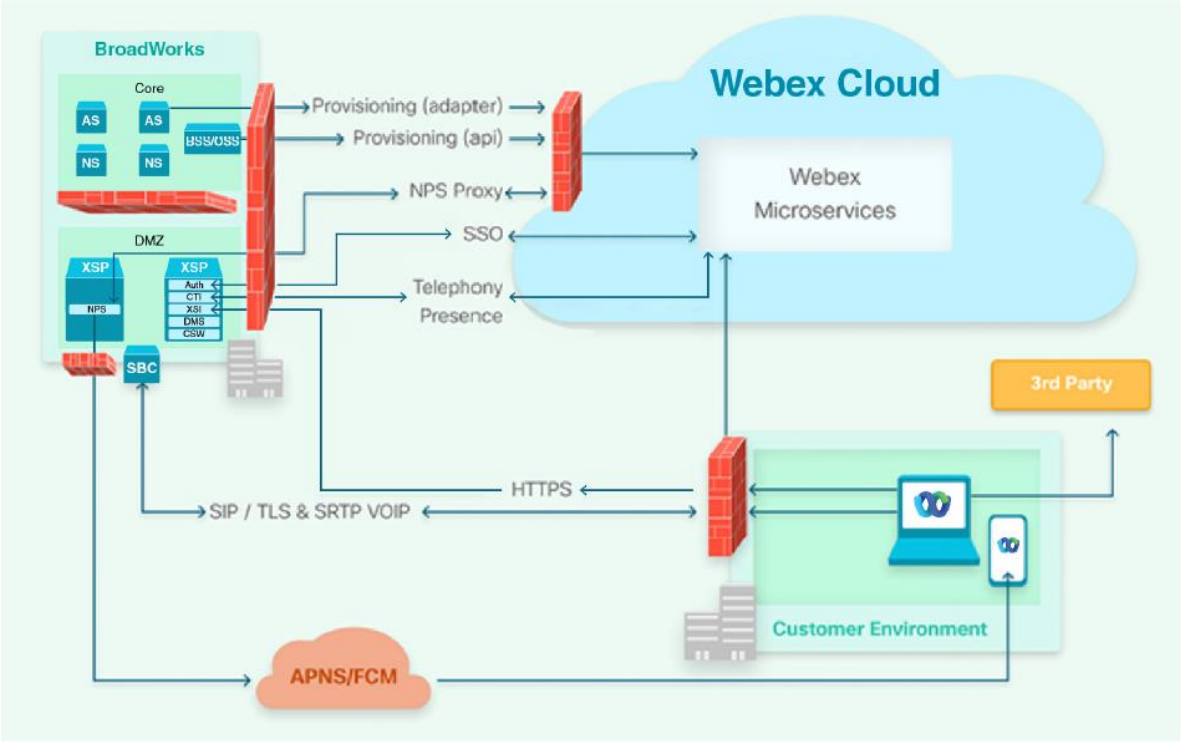
2. Overview

This document specifies the relevant ports that will need to be allowed on the customer's Firewall for the Webex app to work with Exponential-e UCaaS Cisco Webex platform as well as to Cisco Webex Cloud services.

Please note SIPNATALG & SIP Inspection should also be disabled on the Firewall.

3. Connection Map

The following diagram illustrates the Cisco Webex integration points. The diagram shows the IPs and ports used for the Cisco Webex application. In order for the application to work, customers would need to allow setup firewall rules for the Cisco Webex client to reach the Exponential-e UCC infrastructure and the Cisco Webex Cloud/Webex services. The firewall requirements for the normal functioning of the client application are listed as references since they are already documented on help.webex.com.



4. Firewall Configuration

The connection map and the following tables describe the connections and protocols required to be setup on the customer's network to allow communication between the Cisco Webex client to the Exponential-e UCC platform.

Purpose	Source	Protocol	Destination	Destination Port
Webex App	Any	HTTPS	adpcti-webex.ucc-expoe.com 62.244.176.54 62.244.177.56	443
Webex App	Any	HTTPS	adpdms-webex.ucc-expoe.com 62.244.176.59 62.244.177.73	443
Webex App	Any	HTTPS	adpxsi-auth-webex.ucc-expoe.com 62.244.176.67 62.244.177.74	443
Webex SBC Signaling	Any	SIP	sip-tls.exponential-e.com 31.221.75.70 31.221.75.90	5061 5090
Webex SBC Media	Any	RTP	31.221.75.70 31.221.75.90	UDP 49152 - 65535

5. Network Requirements and Firewall Coonfiguration for Webex Services

https://help.webex.com/en-us/article/WBX000028782/Network-Requirements-for-Webex-Services#id_134894

Document Revision History

This article is intended for network administrators, particularly firewall and proxy security administrators who want to use Webex messaging and meetings services within their organization. It will help you configure your network to support the Webex Services used by HTTPS based Webex app and Webex Room devices, as well as Cisco IP Phones, Cisco video devices, and third-party devices that use SIP to connect to the Webex Meetings service.

This document primarily focuses on the network requirements of Webex cloud registered products that use HTTPS signaling to Webex cloud services, but also separately describes the network requirements of products that use SIP signaling to join Webex Meetings. These differences are summarized below please click on the links below:

Summary of device types and protocols supported by Webex

Transport protocols and encryption ciphers for cloud registered Webex apps and devices

Webex traffic through Proxies and Firewalls

Most customers deploy an internet firewall, or internet proxy and firewall, to restrict and control the HTTP based traffic that leaves and enters their network. Follow the firewall and proxy guidance below to enable access to Webex services from your network. If you are using a firewall only, note that filtering Webex signaling traffic using IP addresses is not supported, as the IP addresses used by Webex signaling services are dynamic and may change at any time. If your firewall supports URL filtering, configure the firewall to allow the Webex destination URLs listed in the section "*Domains and URLs that need to be accessed for Webex Services".* Please click the link below:

Webex Services – Port Numbers and Protocols

The following table describes ports and protocols that need to be opened on your firewall to allow cloud registered Webex apps and devices to communicate with Webex cloud signaling and media services.

The Webex apps, devices, and services covered in this table include:
The Webex app, Webex Room devices, Video Mesh Node, Hybrid Data Security node, Directory Connector, Calendar Connector, Management Connector, Serviceability Connector.

For guidance on ports and protocols for devices and Webex services using SIP can be found in the section *"Network requirements for SIP based Webex services"*.

Webex Services - Port Numbers and Protocols			
Destination Port	**Protocol**	**Description**	**Devices using this rule**
443	TLS	Webex HTTPS signaling. Session establishment to Webex services is based on defined URLs, rather than IP addresses. If you are using a proxy server, or your firewall supports DNS resolution; refer to the section *"Domains and URLs that need to be accessed for Webex Services"* to allow signaling access to Webex services.	All
444	TLS	Video Mesh Node secure signaling to establish cascade media connections to the Webex cloud	Video Mesh Node
123 (1)	UDP	Network Time Protocol (NTP)	All
53 (1)	UDP TCP	Domain Name System (DNS) Used for DNS lookups to discover the IP addresses of services in the Webex cloud. Most DNS queries are made over UDP; however, DNS queries may use TCP as well.	All
5004 and 9000	SRTP over UDP	Encrypted audio, video, and content sharing on the Webex App and Webex Room devices For a list of destination IP subnets refer to the section *"IP subnets for Webex media services"*.	Webex App Webex Room Devices Video Mesh Nodes
50,000 – 53,000	SRTP over UDP	Encrypted audio, video, and content sharing – Video Mesh Node only	Video Mesh Node
5004	SRTP over TCP	Used for encrypted content sharing on the Webex App and Webex Room devices TCP also serves as a fallback transport protocol for encrypted audio and video if UDP cannot be used. For a list of destination IP subnets refer to the section *"IP subnets for Webex media services"*.	Webex App Webex Room Devices Video Mesh Nodes
443 (2)	SRTP over TLS	Used as a fallback transport protocol for encrypted audio, video and content sharing if UDP and TCP cannot be used. Media over TLS is not recommended in production environments For a list of destination IP subnets refer to the section *"IP subnets for Webex media services"*.	Webex App (2) Webex Room Devices

Please note If you are using NTP and DNS services within your enterprise network, then ports 53 and 123 do not need to be opened through your firewall. Please click the below:

IP subnets for Webex media services

The Webex Web-based app and Webex SDK do not support media over TLS

Webex signaling traffic and Enterprise Proxy Configuration

Most organizations use proxy servers to inspect and control the HTTP traffic that leaves their network. Proxies can be used to perform several security functions such as allowing or blocking access to specific URLs, user authentication, IP address/domain/hostname/URI reputation lookup, and traffic decryption and inspection. Proxy servers are also commonly used as the only path that can forward HTTP based internet destined traffic to the enterprise firewall, allowing the firewall to limit outbound internet traffic to that originating from the Proxy server(s) only. Your Proxy server must be configured to allow Webex signaling traffic to access the domains/ URLs listed in the section below please click the link below

Domains and URLs that need to be accessed for Webex Services

6. Additional URLs for Webex Hybrid Services

Your Proxy server must be configured to allow Webex signaling traffic to access the domains/ URLs listed in the previous section. Support for additional proxy features relevant to Webex services is discussed below:

follow this link for additional info below:

https://help.webex.com/en-us/article/WBX000028782/Network-Requirements-for-Webex-Services#id_134759

Proxy Features

802.1X – Port based Network Access control

Network requirements for SIP based Webex services

Network Requirements for Webex Edge Audio

A summary of other Webex Hybrid Services and documentation

Webex Services for FedRAMP customers

Document Revision History - Network Requirements for Webex Services

