



Cisco Unified Contact Center Express Port Utilization Guide

Cisco Unified Contact Center Express and Cisco Unified IP IVR
Release 7.0(1)

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Purpose

This document provides a list of the TCP and UDP ports used by the Cisco Unified Contact Centre Express¹ 7.0(1) (Cisco Unified CCX) application, including Cisco Unified IP IVR and Cisco Unified CCX platform.

Audience

This document is intended primarily for the network administrators.

Organization

Port listings are presented in a table format.

Related Documentation

For Cisco Unified ICME/CCE port utilization information, see the Port Utilization Guide for Cisco Unified ICM/IPCC at http://www.cisco.com/en/US/products/sw/custcosw/ps1001/products_installation_and_configuration_guides_list.html.

For Cisco Unified CCX design information, see the Solution Reference Network Design guide at http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_implementation_design_guides_list.html.

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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We appreciate your comments.

1. Cisco Customer Response Solutions (Cisco CRS) will be known as Cisco Unified Contact Center Express (Cisco Unified CCX), effective Cisco Unified CCX 7.0(1) and later. This name is applicable to all Cisco CRS products, platforms, engines, and solutions. For example, Cisco CRS Engine will be known as Cisco Unified CCX Engine.

Port Utilization Table Column Definition

The columns in the Port Utilization tables in this document describe the following:

- **Protocol.** A value representing a formal description of rules to follow and messages to be used by two or more systems to exchange information. The protocol is also used to communicate with an application or service listening to or connecting to a remote device.
- **Port.** A numeric identifier that the Internet transport protocol uses to distinguish among multiple, simultaneous connections to a single destination host.
- **Remote Source Port.** An identifier—usually dynamic—for the port, that the remote application or service uses to connect to the local destination port.
- **Destination Port.** An identifier for the TCP or UDP port that the local service or application is listening on, along with the IP address for incoming connection requests when acting as a server.
- **Remote Device Destination Port.** The identifier for the TCP or UDP port that the remote device's service or application is listening on, along with the IP address for incoming connection requests when acting as the server.
- **Remote Device.** The remote application or device making a connection to the server or service specified by the protocol.



Note When accessing the Real Time Reporting (RTR) Client on Cisco Unified CCX using a browser, the following occurs: The client will initially communicate to Cisco Unified CCX via the pre-configured RMI Port (1099). The Cisco Unified CCX server side OS will then determine what port out of the Ephemeral port range will be used. These have traditionally been between 1024 and 4999 for the Windows OS. Ephemeral (Dynamic) port range for OS 2000.2.7 and beyond has been changed to 49152 – 65534. This change was implemented to prevent ports used by Cisco IP Telephony applications from being dynamically assigned and to bring the OS in alignment with the IANA recommendations. These additional ports have been reserved for compatibility with some Cisco IP Telephony applications: 57606, 59000-59100, 63432. Previous OS versions used the Windows 2000 default of 1024 - 4999.

Cisco Unified IP IVR Port Utilization

Cisco Unified IP IVR Port Utilization For Product Revisions: Cisco Unified IP IVR 7.0 (1).

Table 1-1 Cisco Unified IP IVR Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
MS Terminal Services		TCP 3389		Windows Terminal Services	
VNC HTTP Helper		TCP 580x			Remote Control
VNC Display		TCP 690x		Virtual Network Computer Display	Remote Control
SMTP			TCP 25	Email POP server	Email notification
HTTP		TCP 6293		Administrator Web browsers	Required for system maintenance
		TCP 6294		Cisco Unified IP IVR server	Cluster View Daemon (CVD)
		TCP 994		Cisco Unified IP IVR server	CVD
		UDP 996		Cisco Unified IP IVR server	CVD
SVCHOST		TCP 135	TCP 135	Administration Tomcat instance	Windows Service Loader
HTTPS			TCP 8443	AXL on Cisco Unified Communication Manager (Cisco Unified CM)	
		TCP 1039	TCP 1039		Windows Task Scheduler
		TCP 1042	TCP 1042	SQL Server Process	
		TCP 4433		HR Reporting Client	
RMI		TCP 1099	TCP 1099	RMI Service	
JDBC/SQL		TCP 1433	TCP 1433	Enterprise Database Server	Cisco Unified IP IVR DB Subsystem
CTI/QBE			TCP 2748	Cisco Unified CM Cisco Unified E-mail Integration Manager (Cisco Unified EIM) Cisco Unified Web Integration manager (Cisco Unified WIM)	JTAPI

Table 1-1 Cisco Unified IP IVR Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
HTTP		TCP 8009		Cisco Unified CCX EngineTomcat instance	Required to serve HTTP contacts and grammars to MRCP servers for Speech Recognition
		TCP 8017		Administration Tomcat instance	
		TCP 8080	TCP 8080	User Web Browser/Web Server	HTTP Trigger/HTTP Steps
RTP	UDP 16384-32767		UDP 16384-32767	IP Phones, IP Communicator, Voice Gateways	Voice Media
VRU message interface GED-125		TCP 5000		Cisco Unified CCE VRU PG	Port number is configurable.
			TCP 1444	CiscoWorks	Alarm Service
MRCP					
RTP/RTCP	UDP 16384-32767		UDP 16384-32767	MRCP Speech Server	
RTSP			TCP 554 or TCP 4900	MRCP Speech Server	

Cisco Unified CCX Port Utilization

Cisco Unified CCX Port Utilization for Product Revisions: Cisco Unified CCX 7.0(1)

Table 1-2 Cisco Unified CCX Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
MS Terminal Services		TCP 3389		Windows Terminal Services	
VNC HTTP Helper		TCP 580x			Remote Control
VNC Display		TCP 690x		Virtual Network Computer Display	Remote Control
SMTP			TCP 25	Email POP server	Email notification
HTTP		TCP 990			Bootstrap service request listening port
		TCP 6295			Server port used by Bootstrap Service
		TCP 6293		Administrator Web Browsers	Required for System Maintenance
		TCP 6294		Cisco Unified IP IVR server	Cluster View Daemon (CVD)
		TCP 994		Cisco Unified IP IVR server	CVD
		UDP 996		Cisco Unified IP IVR server	CVD
		TCP 80		HR Report Client	
SVCHOST		TCP 135	TCP 135		Windows Service Loader
HTTPS		TCP 8443	AXL on Call Manager		
		TCP 1039	TCP 1039		Windows Task Scheduler
		TCP 1042	TCP 1042	SQL Server Process	
		TCP 4433		HR Report Client	
RMI		TCP 1099	TCP 1099	RMI Server	
JDBC / SQL		TCP 1433	TCP 1433	Enterprise Database Server	Cisco Unified CCX DB Subsystem

Table 1-2 Cisco Unified CCX Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
CTI/QBE			TCP 2748	Cisco Unified CM Cisco Unified EIM Cisco Unified WIM	JTAPI
HTTP		TCP 8009		Cisco Unified CCX EngineTomcat instance	Required to serve HTTP contacts and grammars to MRCP servers for Speech Recognition.
		TCP 8017		Administration Tomcat instance	
		TCP 59010		Phone Agent, User Web Browser	The Cisco Agent Desktop (CAD)agent login through the phone display is an IP phone service linked to an HTTP trigger on the Cisco Unified CCX application.
RTP	UDP 16384–32767		UDP 16384–32767	IP Phones, IP Communicator, Voice Gateways	Voice Media
ACMI message interface; GED-188		TCP 42027		CAD, Unified CCX Gateway PG	Port number is configurable.
SCCP			TCP 2000	Cisco Unified CM	Used by the phones (media termination and hard phones) to communicate with Cisco Unified CM.
			TCP 1444	CiscoWorks	Alarm Service
MRCP					
RTSP			TCP 554 or TCP 4900	MRCP Speech Server	
RTP/RTCP	UDP 16384-32767		UDP 16384-32767	MRCP Speech Server	

Table 1-2 Cisco Unified CCX Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
CAD		TCP 59020		Cisco Desktop Chat Service	The Chat service sends messages to the CAD desktop via this port.
		TCP 38983		LDAP Service	CAD and CSD
		TCP 63432		LRM Service	CAD and CSD
CORBA		TCP 59028		CSD, Cisco Recording and Playback Service	Desktop Monitoring service CORBA port. CSD sends monitoring requests to this port. The Recording and Playback service sends recording requests to this port.
ICMP				Cisco Unified CCX Server	CAD uses ICMP to constantly check its communication path with the Cisco Unified CCX Server. A customer deploying a firewall between CAD and the Cisco Unified CCX server should not disable ICMP in the firewall.
CSD					
		TCP 59021		Cisco Desktop Chat Service	The Chat service sends messages to the CAD desktop via this port.

Table 1-2 Cisco Unified CCX Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
RTP		UDP 59010–59012		Cisco Desktop VoIP Monitor Service, CAD	The configured VoIP Monitor service or agent desktop sends the RTP streams for monitoring requests to the supervisor to these ports. The To-Agent RTP stream is sent to port 59010 and the From-Agent stream is sent to port 59012.
RTP		UDP 59014, 59016 and 59018		Cisco Recording and Playback Service	When a supervisor is listening to a recorded call (playback), the To-Agent RTP stream is sent to port 59014. The From-Agent stream is sent to port 59016. Port 59018 is used to test the connection to the Recording and Playback service before accepting the RTP streams.
Cisco Desktop VoIP Monitor Service					
CORBA		TCP 59002		Cisco Supervisor Desktop (CSD), Cisco Recording and Playback Service	VoIP Monitor service CORBA port. CSD sends monitoring requests to this port. The Recording and Playback service sends recording requests to this port.
		TCP 37606		Cisco Desktop Recording and Statistics Service, CSD, CAD	VPN IP address discovery port. Clients behind a VPN send requests to this port to obtain their VPN IP address.

Table 1-2 Cisco Unified CCX Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
Cisco Desktop Chat Service					
CORBA		TCP 59000		CAD, CSD, Cisco IP Desktop IP Phone Service	Chat service CORBA port
		TCP 37350		CAD, CSD, Cisco IP Desktop IP Phone Service	VPN IP address discovery port. Clients behind a VPN send requests to this port to obtain their VPN IP address.
Cisco Desktop Recording and Statistics Service					
CORBA		TCP 59003		CAD, CSD, IP Phone Agent service	Recording and Statistics service CORBA port. Recording requests, call status, and agent state change information are sent to this port.
Cisco Desktop Recording and Playback Service					
CORBA		TCP 59005		Cisco Desktop Recording and Statistics Service	Recording and Playback service CORBA port.

Table 1-2 Cisco Unified CCX Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
RTP		TCP 59500-59700		Cisco Desktop VoIP Monitor Service, CAD	The configured VoIP Monitor service or agent desktop sends the RTP streams for recording requests to these ports. Two unique ports are used for each concurrent recording session. This port range may be changed.
		TCP 59027		CSD	VPN IP address discovery port. Clients behind a VPN send requests to this port to obtain their VPN IP address.
Cisco IP Phone Agent					
		59022		Cisco Desktop Chat Service	
CORBA		TCP 59010		Cisco Desktop Administrator	IP Phone Agent CORBA port.
HTTP		TCP 8080		IPPA Servlet running under Tomcat web server.	
Cisco Desktop Directory Service					
LDAP		TCP 38983		CAD, CSD, Cisco Desktop Administrator, and all other Cisco Desktop Services	LDAP Directory services port. All Desktop applications and services use the LDAP client to access the information stored in LDAP.
Cisco Desktop Enterprise Service					
CORBA		TCP 59004		Cisco Desktop Administrator, CAD, Cisco IP Phone Agent Service	Enterprise service CORBA port

Table 1-2 Cisco Unified CCX Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
Cisco Desktop Sync Service					
CORBA		TCP 59011		Cisco Desktop Administrator	Sync service CORBA port.
Cisco LDAP Monitor Service					
CORBA		TCP 59030		Cisco Desktop Administrator	LDAP Monitor service CORBA port
Cisco License and Resource Manager Service (LRM)					
CORBA		TCP 65432		CAD, CSD, Cisco Desktop Administrator, and all other Cisco Desktop Services	LRM service CORBA port.
Cisco Unified CME					
Cisco Unified Communications Manager Express (Cisco Unified CME) Deployment		5060			SIP communication with Cisco Unified CME
MS Terminal Services		TCP 3389		Windows Terminal Services	

Cisco Agent/Supervisor Desktop Port Utilization

The entries for each component in the table above show the server connections for that component rather than all connections. In particular, the following table lists the ports from the machine running the Cisco Agent Desktop/Supervisor base services and from the IP Phone Agent. Cisco Agent Desktop/Supervisor applications and the IP Phone Agent must be able to communicate with the Unified CCX Server through these ports.

Table 1-3 Cisco Agent/Supervisor Desktop Port Utilization

Destination Port	Description
Cisco Agent/Supervisor Desktop	
TCP 37350	Chat/LDAP server's VPN server port
TCP 37606	VoIP VPN Server
TCP 38983	LDAP Server
TCP 42027	Unified CCX CTI Server
TCP 59000	CORBA chat service
TCP 59002	VoIP Server
TCP 59003	Rascal Server
TCP 59004	Enterprise Server
TCP 59005	Recording Server
TCP 59011	Sync Server
TCP 59012	VoIP client's from-agent monitoring port
TCP 59014	Recording server's to-client port
TCP 59016	Recording server's from-client port
TCP 59018	Recording server's null client port
TCP 59020	CAD Chat client's CORBA port
TCP 59021	CSD Chat client's CORBA port
TCP 59027	Recording server's VPN server port
TCP 59028	Desktop Monitor's CORBA port
TCP 59030	LDAP Monitor server port
UDP 59010 and 59012	VoIP client's recording port range
UDP 59014, 59016, and 59018	Recording client port range
TCP 65432	LRM Server
IP Phone Agent	
TCP 8080	IPPA Servlet running under Tomcat web server
UDP 59010	IPPA server CORBA port and VoIP client's to-agent monitoring port.
TCP 6293	Tomcat web server
TCP 59015	Email Applet



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