



# Port Utilization Guide for Cisco Unified Contact Center Express, Release 8.0(1)

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For Cisco Unified Contact Center Express and Cisco Unified IP IVR  
Release 8.0(1)

February, 2012



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# Contents

This document contains the following topics:

- [Overview, page 2](#)
- [Intended Audience, page 2](#)
- [Related Documentation, page 3](#)
- [Port Utilization Table Column Definition, page 3](#)
- [Cisco Unified CCX Port Utilization, page 4](#)
- [Cisco Unified IP IVR Port Utilization, page 7](#)
- [Cisco Agent/Supervisor Desktop Port Utilization, page 10](#)
- [Static Client Ports for Non-Citrix/MTS Environment, page 11](#)
- [Obtain Additional Support and Documentation, page 12](#)
- [Documentation Feedback, page 12](#)

## Overview

This document provides a list of the TCP and UDP ports used by the Cisco Unified Contact Center Express 8.0(1) application, including Cisco Unified IP IVR and Cisco Unified CCX platform. Port listings are presented in a tabular format.

## Intended Audience

This guide is intended for Cisco Unified Communications network administrators.

## Related Documentation

- For Cisco Unified ICME/CCE port utilization information, see the *Port Utilization Guide for Cisco Unified ICM/IPCC* here: [http://www.cisco.com/en/US/products/sw/custcosw/ps1001/products\\_installation\\_and\\_configuration\\_guides\\_list.html](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 for Cisco Unified Contact Center Express and Cisco Unified IP IVR* here: [http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products\\_implementation\\_design\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_implementation_design_guides_list.html)
- For a complete list of terms used in Cisco Unified CCX and Cisco Unified IP IVR, see the following URL: [http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod\\_technical\\_reference\\_list.html](http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_technical_reference_list.html)

## Port Utilization Table Column Definition

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

- **Purpose.** The service for which a particular port is used by the server.
- **Application.** This is the name of the process that is expected to provide the service using a port.
- **Network Protocol.** It is a lower level transport mechanism that is unaware of what is being transported over a network. TCP and UDP are the two transport protocols used here.
- **Protocol.** It is a higher application level transport mechanism that defines the semantics of the messages being transported over a network. If you see TCP as the protocol, it means that the protocol is proprietary.
- **Destination Port / Listener.** A numeric identifier that the Internet transport protocol uses to distinguish among multiple, simultaneous connections to a single destination host.
- **Remote Device.** The name of the devices that connect to the listed port.
- **Source Port.** The port using which the remote device connects to the listed port.

# Cisco Unified CCX Port Utilization

Here is a list of ports that are used in Cisco Unified CCX 8.0(1) (see [Table 1](#)).

**Table 1** Cisco Unified CCX Port Utilization

Destination Port / Listener	Application / Process	Protocol	Network Protocol	Remote Device	Source Port	Purpose
7	System Service		TCP	Editor		- Echo for Editor - ICM Controller
22	System Service		TCP			SFTP and SSH access
80, 8080	Tomcat	HTTP	TCP			Web access
123	System Service		UDP			Network time sync
161	SNMP Agent	SNMP	UDP			Provide services for SNMP-based management applications
1090	AON Management Console (AMC) Service	RMI	TCP	Intra-Cluster communication <sup>1</sup> only		Provide RTMT data collecting, logging and alerting functionalities (AMC RMI Object Port)
1099	AON Management Console (AMC) Service	RMI	TCP	Intra-Cluster communication only		Provide RTMT data collecting, logging and alerting functionalities (AMC RMI Registry Port)
1500	DBMON		TCP			This is the port where the IDS engine listens for DB clients
1501	DBMON		TCP			- This is an alternate port to bring up a second instance of IDS during upgrade. - Localhost traffic only
1504	Informix Dynamic Server (IDS)		TCP	External process like HRC, WallBoard Client, External DB clients (like Squirrel or others for custom reporting) can connect		Unified CCX database port
1515	DBL RPC	XML	TCP	Intra-Cluster communication only		DBL RPC, this is used during installation to set up IDS replication between nodes

Destination Port / Listener	Application / Process	Protocol	Network Protocol	Remote Device	Source Port	Purpose
1990	CVD		TCP	CVD of other node in cluster		Bootstrap adaptor listening for configuration requests
1994	Unified CCX Cluster View Daemon (CVD)		TCP	CAD Services		CAD/CSD components communicate with CVD
1996	CVD		UDP	CVD of other node in cluster		Heartbeats between CVDs in the cluster
2555	Real-Time Information Server (RIS) Data Collector service (RISDC)		TCP	Intra-Cluster communication only		Connect to other RISDC services in the cluster to provide cluster-wide real-time info
2556	RISDC		TCP	Intra-Cluster communication only		Allowed RIS client connection to retrieve real-time info
4040	Disaster Recovery System (DRS)		TCP			DRF master agent server port accepts connections from local agent GUI and CLI
4160	CVD		TCP	CVD of other node in cluster		Jini lookup service TCP port
4160	CVD		UDP	CVD of other node in cluster		Jini lookup service UDP port
5007	System Service	SOAP	TCP			SOAP Monitor - a troubleshooting tool for SOAP infrastructure
5062	Unified Communications Manager Express (Unified CME)		TCP	Unified CME host		Unified CME host communication with Unified CCX
6293, 8080	True Update		TCP	CAD/CSD		CAD/CSD true update
6295	CVD		TCP	CVD of other node in cluster		Bootstrap HTTPD service port
6999	CVD		TCP	Engine, Tomcat, CVD, and Editor		RMI Port
8001	DBMON	CN	TCP	Intra-Cluster communication only		DB change notification port

Destination Port / Listener	Application / Process	Protocol	Network Protocol	Remote Device	Source Port	Purpose
8080, 8443	Tomcat	HTTPS	TCP	Client Browser		- Client browser trying to access any of the Administration interfaces or User Options interface - Web services client using RTMT and mobile supervisor applications
8443	Tomcat	SOAP	TCP			DB access via SOAP; Tomcat forwards the SOAP request to AXL
8500	IPSec Manager daemon	Proprietary	UDP			Cluster replication of platform data (hosts) certificates etc.
8500	IPSec Manager daemon	Proprietary	TCP			Connectivity testing
9080	Engine		TCP			- Clients trying to access HTTP triggers or documents / prompts / grammars - Tomcat instance used by Unified CCX engine
12028	Unified CCX Engine		TCP			CTI Server
24576 ~ 32767	Cisco IP Voice Media Streaming application	RTP RTCP	UDP			- Audio media streaming - Kernel streaming device driver
32768 ~ 61000			TCP			Generic ephemeral TCP ports <sup>2</sup>
32768 ~ 61000			UDP			Generic ephemeral UDP ports <sup>3</sup>
65535	TVS		TCP			Trust Verification Service
	JTAPI Client	QBE	TCP	Unified CM	2748	Provide services to CTI applications

1. Intra-Cluster communication in the table represents communication between Unified CCX servers in a cluster.
2. TCP Ephemeral ports are used to accept connections during Java RMI communication. Java RMI clients know which port it need to connect, because RMI first connects to RMI Registry (well known port - 6999) and get the information which ephemeral port client need to connect to. AppAdmin, Engine & CVD use RMI communication in CCX/IP-IVR, so TCP ephemeral port range is opened up for intra-cluster communication between these processes.
3. UDP Ephemeral ports are used to receive audio/video RTP streams; so UDP Ephemeral port range is opened for incoming connections for streaming RTP media from CTI ports.

# Cisco Unified IP IVR Port Utilization

Here is a list of ports that are used in Cisco Unified IP IVR 8.0(1) (see [Table 2](#)).

**Table 2** Cisco Unified IP IVR Port Utilization

Destination Port / Listener	Application / Process	Protocol	Network Protocol	Remote Device	Source Port	Purpose
7	System Service		TCP	Editor		- Echo for Editor - ICM Controller
22	System Service		TCP			SFTP and SSH access
80, 8080	Tomcat	HTTP	TCP			Web access
123	System Service		UDP			Network time sync
161	SNMP Agent	SNMP	UDP			Provide services for SNMP-based management applications
1090	AON Management Console (AMC) Service	RMI	TCP	Intra-Cluster communication <sup>1</sup> only		Provide RTMT data collecting, logging and alerting functionalities (AMC RMI Object Port)
1099	AON Management Console (AMC) Service	RMI	TCP	Intra-Cluster communication only		Provide RTMT data collecting, logging and alerting functionalities (AMC RMI Registry Port)
1500	DBMON		TCP			This is the port where the IDS engine listens for DB clients
1501	DBMON		TCP			- This is an alternate port to bring up a second instance of IDS during upgrade. - Localhost traffic only
1504	Informix Dynamic Server (IDS)		TCP	External process like HRC, WallBoard Client, External DB clients (like Squirrel or others for custom reporting) can connect		Unified IP IVR database port
1515	DBL RPC	XML	TCP	Intra-Cluster communication only		DBL RPC, this is used during installation to set up IDS replication between nodes

Destination Port / Listener	Application / Process	Protocol	Network Protocol	Remote Device	Source Port	Purpose
1990	CVD		TCP	CVD of other node in cluster		Bootstrap adaptor listening for configuration requests
1994	Unified IP IVR Cluster View Daemon (CVD)		TCP	CAD Services		CAD/CSD components communicate with CVD
1996	CVD		UDP	CVD of other node in cluster		Heartbeats between CVDs in the cluster
2555	Real-Time Information Server (RIS) Data Collector service (RISDC)		TCP	Intra-Cluster communication only		Connect to other RISDC services in the cluster to provide cluster-wide real-time info
2556	RISDC		TCP	Intra-Cluster communication only		Allowed RIS client connection to retrieve real-time info
4040	Disaster Recovery System (DRS)		TCP			DRF master agent server port accepts connections from local agent GUI and CLI
4160	CVD		TCP	CVD of other node in cluster		Jini lookup service TCP port
4160	CVD		UDP	CVD of other node in cluster		Jini lookup service UDP port
5000	Unified IP IVR Engine		TCP	Unified ICM		Using this port Unified ICM Subsystem listens to GED-125Clients
5007	System Service	SOAP	TCP			SOAP Monitor - a troubleshooting tool for SOAP infrastructure
6293, 8080	True Update		TCP	CAD/CSD		CAD/CSD true update
6295	CVD		TCP	CVD of other node in cluster		Bootstrap HTTPD service port
6999	CVD		TCP	Engine, Tomcat, CVD, and Editor		RMI Port
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8080, 8443	Tomcat	HTTPS	TCP	Client Browser		- Client browser trying to access any of the Administration interfaces or User Options interface - Web services client using RTMT and mobile supervisor applications
8443	Tomcat	SOAP	TCP			DB access via SOAP; Tomcat forwards the SOAP request to AXL
8500	IPSec Manager daemon	Proprietary	UDP			Cluster replication of platform data (hosts) certificates etc.
8500	IPSec Manager daemon	Proprietary	TCP			Connectivity testing
9080	Engine		TCP			- Clients trying to access HTTP triggers or documents / prompts / grammars - Tomcat instance used by Unified IP IVR engine
24576 ~ 32767	Cisco IP Voice Media Streaming application	RTP RTCP	UDP			- Audio media streaming - Kernel streaming device driver
32768 ~ 61000			TCP			Generic ephemeral TCP ports <sup>2</sup>
32768 ~ 61000			UDP			Generic ephemeral UDP ports <sup>3</sup>
65535	TVS		TCP			Trust Verification Service
	JTAPI Client	QBE	TCP	Unified CM	2748	Provide services to CTI applications

1. Intra-Cluster communication in the table represents communication between Unified IP IVR servers in a cluster.
2. TCP Ephemeral ports are used to accept connections during Java RMI communication. Java RMI clients know which port it need to connect, because RMI first connects to RMI Registry (well known port - 6999) and get the information which ephemeral port client need to connect to. AppAdmin, Engine & CVD use RMI communication in CCX/IP-IVR, so TCP ephemeral port range is opened up for intra-cluster communication between these processes.
3. UDP Ephemeral ports are used to receive audio/video RTP streams; so UDP Ephemeral port range is opened for incoming connections for streaming RTP media from CTI ports.

# Cisco Agent/Supervisor Desktop Port Utilization

Here is a list of ports that are used by Cisco Agent Desktop (CAD) or Cisco Supervisor Desktop (CSD) applications or services to communicate with Cisco Unified CCX 8.0(1) (see [Table 3](#) and [Table 4](#)).



**Note** These ports are not opened for Cisco Unified IP IVR deployment.

The remote devices for these ports are all CAD / CSD / CAD-BE (CAD-Business Edition) and the source ports are from the ephemeral port range of the connecting device.

**Table 3** *Cisco Agent / Supervisor Desktop Port Utilization*

Port	Application/ Process	Network Protocol	Purpose
3000	LRMSvc	TCP	Licensing and Resource Manager Service
3001	CallChatSvc	TCP	Call / Chat Service - CORBA
3002	CallChatSvc	TCP	Call / Chat Service - VPN
3003	RASCALSvc	TCP	Recording and Statistics Service
3004	EntSvc	TCP	Enterprise Service
3103	EntSvc	TCP	Enterprise Service - Chat
3006	EEMSvc	TCP	Agent E-Mail Service
3007	LDAPMon	TCP	LDAP Monitor Service
3008	SyncSVC	TCP	Sync Service
3009	RecSvc	TCP	Recording and Playback Service - CORBA
3010	RecSvc	TCP	Recording and Playback Service - VPN
3011	VoIP	TCP	VoIP Monitor Service - CORBA
3012	VoIP	TCP	VoIP Monitor Service - VPN
3013	BIPPA	TCP	Browser and IP Phone Agent Service - CORBA
3014	BIPPA	TCP	Browser and IP Phone Agent Service - TCP
3016, 38983	LDAP	TCP	Open LDAP
3017	LDAP	TCP	Open LDAP
3102	BIPPA	TCP	Browser and IP Phone Agent Service - Chat
3500:3700	Rec	UDP	Recording and Playback Service - RTP

Port	Application/ Process	Network Protocol	Purpose
8443	HTTPS	TCP	SOAP between CAD client and Unified CM
65432	LRMSvc	TCP	Licensing and Resource Manager Upgrade Service

There are few ports that are listening on Cisco Desktop clients. This applies to non-Citrix/MTS environments only and does not include other connections that are made with ephemeral ports. [Table 4](#) provides information regarding these fixed client ports.

**Table 4**      **Static Client Ports for Non-Citrix/MTS Environment**

Port	Process	Network Protocol	Port Utilization	Comments
<b>Cisco Agent Desktop</b>				
59015	eem applet	TCP	Cisco Agent Desktop	Will be any available port in Citrix. Client is local Cisco Agent Desktop (does not cross the network)
59020	desktop mon / chat	TCP	Cisco Supervisor Desktop/ Cisco Desktop Base Services	Will be any available port in Citrix
58000	ipc receive event	UDP	Custom application	Provides an interface to control Agent Desktop <b>Note:</b> It can be changed via Cisco Desktop Workflow Administration
Ephemeral	Chat presence	TCP and UDP	Chat presence service	Will be any available port in Citrix; Cisco Unified Presence (CUP) server listens on 5060 (Default for SIP and configurable in CUP server)
<b>Cisco Supervisor Desktop</b>				
59021	chat	TCP	Cisco Desktop Base Services	Will be any available port in Citrix
59010 59012	voip	UDP	Cisco Desktop VoIP Monitor Service (SPAN-based monitoring), Cisco Agent Desktop (desktop monitoring)	Will be any available port in Citrix
59014 59016	playback	UDP	Cisco Desktop Recording Service	Will be any available port in Citrix
Ephemeral	Chat presence	TCP and UDP	Chat presence service	Will be any available port in Citrix; Cisco Unified Presence (CUP) server listens on 5060 (Default for SIP and configurable in CUP server)

# Obtain Additional Support and Documentation

For information on obtaining support, obtaining additional documentation, providing documentation feedback, 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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