



Cisco CRS Port Utilization Guide, Release 6.0(1)



Cisco Unified Contact Center Express and Cisco Unified IP IVR

August 2007

1 Purpose

This document provides a list of the TCP and UDP ports used by Cisco CRS 6.0 (1), including Cisco Unified IP IVR (Unified IP IVR) and Cisco Unified Contact Center Express (UnifiedCCX).

2 Audience

This document is intended primarily for network administrators.

3 Organization

Port listings are presented in a table format.

4 Related Documentation

For 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 Unified CRS 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.

5 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 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 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 CRS using a browser, the following occurs: The client will initially communicate to CRS via the pre-configured RMI Port (1099). The CRS 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.

6 Unified IP IVR Port Utilization

Unified IP IVR Port Utilization For Product Revisions: Unified IP IVR 6.0.

Table 1 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
HTTP		TCP 6294		Unified IP IVR Server	Cluster View Daemon (CVD)
		TCP 994		Unified IP IVR Server	CVD
		TCP 996		IP IVR Server	CVD
LDAP			TCP 8404	DCD Directory on Cisco Unified CallManager	
SVCHOST		TCP 135	TCP 135		Windows Service Loader
		TCP 789	TCP 789	Unified IP IVR Main Server	WFEngineService Process (Debug Port)
		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	IP IVR DB Subsystem
CTI/QBE			TCP 2748	Cisco Unified CallManager	JTAPI
HTTP		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 Contact Center Enterprise VRU PG	Port number is configurable.
			TCP 1444	CiscoWorks	Alarm Service
		TCP 3927	-	BARS Server	BARS/Upgrade
		TCP 4027		BARS Server	BARS/Upgrade
		TCP 4127		BARS Server	BARS/Upgrade
Nuance					

Table 1 Unified IP IVR Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
RTSP			TCP 554	Nuance MRCP Speech Server	
RTP/RTCP	UDP 16384-32767		UDP 16384-32767	Nuance MRCP Speech Server	
Scansoft					
RTSP			TCP 4900	Scansoft MRCP Speech Server	
RTP/RTCP	UDP 16384-32767		UDP 16384-32767	Scansoft MRCP Speech Server	

7 Unified CCX Port Utilization

Unified CCX Port Utilization for Product Revisions: Unified CCX 6.1

Table 2 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 6293		Administrator Web browsers	Required for system maintenance
HTTP		TCP 6294		Unified CCX Server	Cluster View Daemon (CVD)
		TCP 994		Unified CCX Server	CVD
		TCP 996		Unified CCX Server	CVD
LDAP			TCP 8404	DCD Directory on Cisco Unified CallManager	
SVCHOST		TCP 135	TCP 135		Windows Service Loader
		TCP 789	TCP 789	Unified CCX Main Server	WFEEngineService Process (Debug Port)
		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	

Table 2 Unified CCX Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
JDBC / SQL		TCP 1433	TCP 1433	Enterprise DataBase Server	Unified CCX DB Subsystem
CTI/QBE			TCP 2748	Cisco Unified CallManager	JTAPI
HTTP		TCP 59010		Phone Agent, User Web Browser	The Cisco Agent Desktop agent login through the phone display is an IP phone service linked to an HTTP trigger on Unified CCX.
RTP	UDP 16384-32767		UDP 16384-32767	IP Phones, IP Communicator, Voice Gateways	Voice Media
ACMI message interface; GED-188		TCP 42027		Cisco Agent Desktop (CAD), Unified CCX Gateway PG	Port number is configurable.
SCCP			TCP 2000	Cisco Unified CallManager	Used by the phones (media termination and hard phones) to communicate with the Cisco Unified CallManager.
			TCP 1444	CiscoWorks	Alarm Service
		TCP 3927		BARS Server	BARS/Upgrade
		TCP 4027		BARS Server	BARS/Upgrade
		TCP 4127		BARS Server	BARS/Upgrade
Cisco Agent Desktop					
		TCP 59020		Cisco Desktop Chat Service	
		TCP 38983	-	LDAP Service	CAD and CSD
		TCP 63432		LRM Service	CAD and CSD
ICMP				Unified CCX Server	CAD uses ICMP to constantly check its communication path with the Unified CCX Server. A customer deploying a firewall between CAD and the Unified CCX server should not disable ICMP in the firewall.

Table 2 Unified CCX Port Utilization

Protocol	Remote Source Port	Destination Port	Remote Device Destination Port	Remote Device	Notes
Cisco Supervisor Desktop					
		TCP 59000		Cisco Supervisor Desktop, Cisco Desktop TAI Service	Primary server port
		TCP 37350		Cisco Desktop RASCAL Service, Cisco Supervisor Desktop, Cisco Desktop TAI Service	IP discovery port (over VPN)
Cisco Desktop Recording and Statistics Service					
		TCP 59003		Cisco Agent Desktop, Cisco Supervisor Desktop	Primary server port
RTP		UDP 59100-59169		Cisco Desktop VoIP Monitor Service	
Cisco Desktop Recording and Playback Service					
		TCP 59027		Cisco Agent Desktop, Cisco Supervisor Desktop	Primary server port
		TCP 59004		Cisco Desktop Administrator, Cisco Agent Desktop, Cisco Desktop TAI Service	Cisco Desktop Enterprise Service
		TCP 59011		Cisco Desktop Administrator	Cisco Desktop Sync Service
Cisco IP Phone Agent					
		TCP 59022		Cisco Desktop Chat Service	
		TCP 59010		Cisco Desktop Administrator	
		TCP 6293		IPPA Servlet running under Tomcat Web Server	
Nuance					
RTSP			TCP 554	Nuance MRCP Speech Server	
RTP/RTCP	UDP 16384-32767		UDP 16384-32767	Nuance MRCP Speech Server	
Scansoft					
RTSP			TCP 4900	Scansoft MRCP Speech Server	
RTP/RTCP	UDP 16384-32767		UDP 16384-32767	Scansoft MRCP Speech Server	



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