Port Utilization Guide for Cisco ICM/IPCC Enterprise and Hosted Editions

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Chapter 1

Cisco ICM/IP Contact Center Port Utilization

This document describes the ports used in an ICM/IPCC Hosted or Enterprise software.

This document provides a list of theTCP and UDP ports used by Cisco Contact Center products. It provides extremely important information for configuring both Quality of Service (QoS) and Firewall/VPN solutions on a network when there is an Architecture for Voice, Video and Integrated Data (AVVID) solution implemented.

This document is intended primarily for network administrators.

Port listing are presented in a table format. Where applicable formulas are used so that you can calculate the ports beyond instance 0.

For port utilization of Cisco Email Server (CEM), Cisco Collaboration Server (CCS), and Cisco Media Blender (CMB) when used in 7.0(0), see **Cisco Contact Center Product Port Utilization Guide (with ICM/IP Contact Center Enterprise 6.0(0)** (http://www.cisco.com/univercd/cc/td/doc/product/icm/port_uti/port60.pdf).

Warning: The information this document provides is based on default configuration settings. If you are working in a live network, ensure that you understand the components installed and the associated ports in use.

This section contains the following topics:

Port Utilization Table Column Definitions

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

- Server or Application Protocol:

A value representing the Server or Application and where applicable the open or proprietary application protocol.

- Server Protocol/Port:

  An identifier for the TCP or UDP port that the Server or application is listening on, along with the IP address for incoming connection requests when acting as a server.

- Remote Protocol/Port:

  The identifier for the TCP or UDP port that the remote 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; or listening on the remote protocol/port.

  Note: The source port the local application or service uses to connect to a remote device's destination port is not specified because it is always dynamically assigned by the Operating System. In most cases, this port is assigned randomly above TCP/UDP 1024.

Cisco ICM/IP Contact Center Enterprise Edition Port Utilization

For Product Revisions: ICM 7.0(0), CTI OS 7.0(0), Support Tools 2.0(0)

Some port definitions use a formula, for example:

```
TCP 40007 + (Instance Number * 40)
```

In the formula above, for instance 0, the port is 40007, for instance 1 the port is 40047, for instance 2 the port is 40087, etc.

Cisco ICM/IP Contact Center Enterprise Edition Port Utilization

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
ICM Router (Side B) (MDS)	• Private Low: TCP 41004 + (Instance Number * 40) • Private Medium: TCP 41016 + (Instance Number * 40) • Private High: TCP 41005 + (Instance Number * 40) • State Xfer for CIC: TCP 41022 + (Instance Number * 40) • State Xfer for CLGR: TCP 41021 + (Instance Number * 40) • State Xfer for HLGR: TCP 41032 + (Instance Number * 40) • State Xfer for RTR: TCP 41020 + (Instance Number * 40) UDP 39500 - 39999		ICM Router (SideA) (MDS)	Private Network at the Central Controller site **Note:** UDP Ports are not used if QoS is enabled on the ICM Router private interface.
ICM PG (Side B) (pgagent)	TCP 43006 + (Instance Number * 40)		ICM PG (Side A) (pgagent)	Public Network (Test-Other-Side)

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
ICM PG1 (Side B) (MDS)	• Private Low: TCP 43004 + (Instance Number * 40) • Private Medium: TCP 43016 + (Instance Number * 40) • Private High: TCP 43005 + (Instance Number * 40) • State Xfer for OPC: TCP 43023 + (Instance Number * 40) UDP 39500 - 39999		ICM PG1 (Side A)	Private Network **Note:** UDP Ports are not used if QoS is enabled on the ICM PG private interface.
ICM PG2 (Side B) MDS	• Private Low: TCP 45004 + (Instance Number * 40) • Private Medium: TCP 45016 + (Instance Number * 40) • Private High: TCP 45005 + (Instance Number * 40) • State Xfer for OPC: TCP 45023 + (Instance Number * 40) UDP 39500 - 39999		ICM PG2 (Side A)	Private Network **Note:** UDP Ports are not used if QoS is enabled on the ICM PG private interface.
ICM Router (Side A) DMP (ccagent)	• Public Low: TCP 40002 + (Instance Number * 40) • Public Medium:		ICM PG (pgagent)	Public Network Connecting the PG to the Central Controller Router to pre-5.0 PG communication.

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
	TCP 40017 + (Instance Number * 40) • Public High: TCP 40003 + (Instance Number * 40) UDP 39500 - 39999			**Note:** UDP Ports are not used if QoS is enabled on the ICM PG private interface.
ICM Router (Side B) DMP (ccagent)	• Public Low: TCP 41002 + (Instance Number * 40) • Public Medium: TCP 41017 + (Instance Number * 40) • Public High: TCP 41003 + (Instance Number * 40) UDP 39500 - 39999		ICM PG (pgagent)	Public Network Connecting the PG to the Central Controller Router to pre-5.0 PG communication. **Note:** UDP Ports are not used if QoS is enabled on the ICM PG private interface.
ICM Router A (rtfeed)	TCP 40007 + (Instance Number * 40)		AW (Distributor)	Real Time Feed
ICM Router B (rtfeed)	TCP 41007 + (Instance Number * 40)		AW (Distributor)	Real Time Feed
ICM Logger (Side A)	TCP 40026 + (Instance Number * 40) TCP 40028 + (Instance Number * 40)		AW Historical Data Server (HDS)	Replication
ICM Logger (Side B)	TCP 41026 + (Instance Number * 40) TCP 41028 + (Instance Number * 40)		AW Historical Data Server (HDS)	Replication
Primary AW Distributor (rtfeed)	TCP 48008 + (Instance Number * 40)		Client AW	Real Time feed
Secondary AW Distributor (rtfeed)	TCP 49008 + (Instance Number * 40)		Client AW	Real Time feed
CICM Router (Side A) (INCRPNIC)	UDP 40025 + (Instance Number * 40)		NAM Router (CIC)	Public Network Connecting the NAM to the CICM

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
CICM Router (Side B) (INCRPNIC)	UDP 41025 + (Instance Number * 40)		NAM Router (CIC)	Public Network Connecting the NAM to the CICM
Distributor, WebView, Internet Script Editor				
MSSQL		TCP 1433	Logger Distributor	
HTTP	TCP 80		WebView Clients	Webview with SSL-enabled Authentication only, requires HTTP as well as HTTPS
HTTPS	TCP 443		WebView, IPCC Web Administration, and Internet Script Editor Clients	
CONAPI		TCP 1099	Clients RMI Registry	Multichannel application integration
IPCC Outbound Dialer				
SCCP		TCP 2000	Cisco CallManager	
RTP	UDP 32000–32100 UDP 39100-39200		Voice Gateway	Receive ports for reservation calls
TFTP		UDP 69	TFTP server	
TFTP File Transfer		Ephemeral		
CTI and CTI Object Server				
GED-188 (CTI Server)	Side A TCP 42027 + (Instance Number * 40) Side B TCP 43027 + (Instance Number * 40)		ARM Interface CTI OS Server CAD Server	

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
CTI OS Server	TCP 42028		CTI OS Client CTI OS Server Peers CAD Desktop	Applicable to first CTI OS instance. Multi-instance CTI OS and Hosted IPCC require a custom port be defined.
CTI OS Supervisor Desktop	UDP 39200		CTI OS Client	Desktop Silent Monitoring
Cisco Enterprise Data Store	TCP 42029		Siebel server	Support for screen call context
Cisco Support Tools				
Support Tools Node Agent	TCP 39100		Support Tools Application Server	
Tomcat: HTTPS	TCP 8189		Administration Client	Support Tools Server
TDM/IP Peripherals				
IP Process Communications				
CTI/QBE		TCP 2748	Cisco CallManager	JTAPI
GED-125	TCP 5000–5001		Customer Voice Portal (or ISN) Cisco IP IVR	ICM/IVR message interface, VRU PIM
MR PIM	TCP 2000		Media Routing process (e.g., CEM)	
TDM Process Communications				**Note:** For more information on peripheral communication, see the "ACD Supplement" user documentation for the specifics switch you are using.
Alcatel 4400 PIM		TCP 2555	Alcatel 4400	CSTA

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
Aspect PIM		TCP 8000	Aspect ACD	Used by real time bridge
Aspect Contact Center server PIM		TCP 6101 TCP 6102 TCP 9001	Aspect Contact Center server	Application bridge Event link
Avaya PIM	TCP 6060–6070	TCP 5678	Avaya ACD CMS	Event link
Ericsson MD100 PIM		TCP 2555	Ericsson MD100	CSTA
MIS Process	TCP 3000–3030		VRU	Connects to CTIserver, listens for VRU PIM
Nortel Meridian PIM		TCP 44444	Nortel Meridian	
NEC NEAX2400		TCP 1024	NEC NEAX2400	
Rockwell Spectrum PIM		Configurable	Rockwell Spectrum ACD	
Siemens HICOM 300E		Configurable	Siemens HICOM ACD	Connects to Callbridge CSTA Gateway
Symposium PIM		TCP 3000	Nortel Symposium	Meridian link
Network Interface Controllers (NIC) *Refer to the TCP/IP-based NIC System Management Guide Supplements and setup parameters of the NIC, SS7 Gateway, or SCP connections for more details.*				
Windows Authentication and Remote Administration Ports For more information, see: "Service overview and network port requirements for theWindows Server system" (Microsoft Knowledge Base Article Q832017).				
RPC	TCP 135 UDP 135			
NetBIOS Session	TCP 139			

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
NetBIOS Name Resolution	TCP 137 UDP 137			
NetBIOS Netlogon/ Browsing	UDP 138			
SMB	TCP 445 UDP 445			
LDAP	TCP 389 UDP 389			
LDAP SSL	TCP 636			
LDAP GC	TCP 3268			
LDAP GC SSL	TCP 3269			
DNS	TCP 53 UDP 53			
Kerberos	TCP 88 UDP 88			
NTP	UDP 123			
SQL Server	TCP 1433 UDP 1434			see Q287932
Network Management and Remote Administration				
SNMP	UDP 161			
SNMP–Trap	UDP 162			
Syslog	UDP 514			
Telnet	TCP 23			

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
RDP (Terminal Services)	TCP 3389			
pcAnywhere	TCP 5631 UDP 5632			
VNC	TCP 5900 TCP 5800 (Java HTTP)			RealVNC 4.0

Cisco Agent Desktop (CAD) Port Utilization

Cisco Agent Desktop (CAD) Port Utilization For Product Revisions: CAD 7.0(0)

Cisco Agent Desktop (CAD) Port Utilization

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
Cisco Agent Desktop				
Desktop Monitor	TCP 59028		Cisco Supervisor Desktop	
Chat	TCP 59020		Cisco Desktop Base Servers	
CTI OS		TCP 42028	CTI OS Server	
Cisco Supervisor Desktop				
Chat	TCP 59021		Cisco Desktop Base Servers	
RTP	UDP 59010 UDP 59012		Cisco Desktop VoIP Monitor Service	
RTP	UDP 59014 UDP 59016		Cisco Desktop Recording Server	
Cisco Desktop Base Servers				
LRM	TCP 65432		Cisco Agent Desktop	

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
			Cisco Supervisor Desktop	
Chat	TCP 59000 TCP 37350			
Enterprise	TCP 59004			
Rascal	TCP 59003			
Directory	TCP 38983			
TrueUpdate	TCP 8088			
LRM	TCP 65432 UDP 27871		Cisco Desktop Base Servers	
Chat	TCP 59000 TCP 37350			
Enterprise	TCP 59004			
Directory	TCP 38983			
TAI	TCP 59010			
LRM	TCP 65432		Cisco Desktop VoIP Monitor Server Cisco Desktop Recording Server	
Directory	TCP 38983			
LRM	TCP 65432		Cisco Desktop Administrator	
Enterprise	TCP 59004		Cisco Desktop Administrator	
Directory	TCP 38983		Cisco Desktop Administrator	
TAI	TCP 59010		Cisco Desktop Administrator	
Sync	TCP 59011		Cisco Desktop Administrator	

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
TrueUpdate	TCP 8088		Cisco Desktop Administrator	
GED-188		Side A: TCP 42027 Side B: TCP 43027	CTI Server	Call Events
MSSQL		TCP 1433	Cisco ICM Distributor	Rascal
AXL (SOAP)	Dynamic	TCP 80	Cisco CallManager	
Cisco Desktop VoIP Monitor Server				
Primary Server	TCP 59002		Cisco Agent Desktop Cisco Supervisor Desktop	
IP Discovery	TCP 37606		Cisco Agent Desktop Cisco Supervisor Desktop	
AXL (SOAP)	Dynamic	TCP 80	Cisco CallManager	Phone MAC Address Lookup
Cisco Desktop Recording Server				
Primary Server	TCP 59005		Cisco Agent Desktop Cisco Supervisor Desktop	
IP Discovery	TCP 59027		Cisco Agent Desktop Cisco Supervisor Desktop	
RTP	UDP 59500 - 59700		Cisco Desktop VoIP Monitor Server	

Cisco Remote Monitoring Suite (RMS) Port Utilization

Cisco Remote Monitoring Suite (RMS) Port Utilization For Product Revisions: RMS 2.1

Cisco Remote Monitoring Suite (RMS) Port Utilization

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
Listener				
RPC, NetBIOS, SMB, Named Pipes	TCP/UDP 135 TCP/UDP 137 TCP 139 UDP 138 TCP/UDP 445		Logger LGMapper LGArchiver Listener (Peer)	See "HOW TO: Configure RPC Dynamic Port Allocation to Work with Firewall" at Microsoft KB 154596 for information about configuring RPC to work with a firewall.
EMT	TCP 40012		Listener	
AlarmTracker				
DCOM/RPC (AlarmTracker Client)	TCP/UDP 135 TCP 1024-65535		LGMapper	For information about RPC and how to configure DCOM to work with firewalls, see **"Using Distributed COM with Firewalls"**[1]
DCOM/RPC (AlarmTracker Client Tools)	TCP/UDP 135 TCP 1024-65535		LGArchiver	For information about RPC and how to configure DCOM to work with firewalls, see **"Using Distributed COM with Firewalls"**[2]
SDDSN				
SDDSN Phone Home	TCP 40080		Third Party	(e.g. CVP)
RPC, NetBIOS, SMB	TCP/UDP 135		Listener	SDDSN Server <–> Listener

1) http://www.microsoft.com/com/wpaper/dcomfw.asp

2) http://www.microsoft.com/com/wpaper/dcomfw.asp

Server or Application Protocol	Server Protocol/Port	Remote Protocol/Port	Remote Device	Notes
	TCP/UDP 137 TCP 139 UDP 138 TCP/UDP 445			