

Cisco Contact Center Product Port Utilization Guide

For Cisco ICM/IP Contact Center Enterprise 6.0(0), CTI OS 6.0(0), Support Tools 1.0(1), Cisco Agent Desktop 6.0(1), Remote Monitoring Suite 2.0(0), E-Mail Manager 4.0.x, 5.0(0), Collaboration Server CCS 4.0, 5.0(0), Media Blender 4.x, 5.0(0), Dynamic Content Adapter 2.x, Internet Service Node 2.x, IP IVR 3.x, IPCC Express 3.x

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Introduction

This document provides a list of the TCP 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.



Caution 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.

Guide Contents

This document contains the following sections:

- [“Port Utilization Table Column Definitions” on page 2](#)
- [“Cisco ICM/IP Contact Center Enterprise Edition Port Utilization” on page 3](#)
- [“Cisco Agent Desktop \(CAD\) Port Utilization” on page 10](#)
- [“Cisco Remote Monitoring Suite \(RMS\) Port Utilization” on page 12](#)
- [“Cisco Collaboration Server Port Utilization” on page 15](#)
- [“Cisco Media Blender Port Utilization” on page 16](#)
- [“Dynamic Content Adapter Port Utilization” on page 17](#)
- [“Cisco Internet Service Node Port Utilization” on page 18](#)
- [“Cisco IP IVR Port Utilization” on page 20](#)
- [“Cisco IPCC Express Port Utilization” on page 23](#)
- [“Appendix: Ports Utilization Diagrams and Instance Breakdown by Protocol” on page 27](#)



Port Utilization Table Column Definitions

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 exchanging 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.
- **Source Port.** An identifier—usually dynamic—for the port the local application or service uses to connect to the remote device's destination port.
- **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.



Cisco ICM/IP Contact Center Enterprise Edition Port Utilization

For Product Revisions: ICM 6.0(0), CTI OS 6.0(0), Support Tools 1.0(1)

Table 1 Cisco ICM/IP Contact Center Enterprise Edition Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
ICM Router (Side B) (MDS)		<ul style="list-style-type: none"> Private Low: TCP 41004 + (InstanceNumber * 40) Private Medium: TCP 41016 + (InstanceNumber * 40) Private High: TCP 41005 + (InstanceNumber * 40) State Xfer for CIC: TCP 41022 + (InstanceNumber * 40) State Xfer for CLGR: TCP 41021 + (InstanceNumber * 40) State Xfer for HLGR: TCP 41032 + (InstanceNumber * 40) State Xfer for RTR: TCP 41020 + (InstanceNumber * 40) UDP 39500 - 39999			ICM Router (Side A)(MDS)	Private Network at the Central Controller site UDP Ports are not used if QoS is enabled on the ICM Router private interface.
ICM PG (Side B) (pgagent)		TCP 43006 + (InstanceNumber * 40)			ICM PG (Side A) (pgagent)	Public Network (Test-Other-Side)
ICM PG1 (Side B) (MDS)		<ul style="list-style-type: none"> Private Low: TCP 43004 + (InstanceNumber * 40) Private Medium: TCP 43016 + (InstanceNumber * 40) Private High: TCP 43005 + (InstanceNumber * 40) State Xfer for OPC: TCP 43023 + (InstanceNumber * 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.



Table 1 Cisco ICM/IP Contact Center Enterprise Edition Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
ICM PG2 (Side B) MDS		<ul style="list-style-type: none"> Private Low: TCP 45004 + (InstanceNumber * 40) Private Medium: TCP 45016 + (InstanceNumber * 40) Private High: TCP 45005 + (InstanceNumber * 40) State Xfer for OPC: TCP 45023 + (InstanceNumber * 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)		<ul style="list-style-type: none"> Public Low: TCP 40002 + (InstanceNumber * 40) Public Medium: TCP 40017 + (InstanceNumber * 40) Public High: TCP 40003 + (InstanceNumber * 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 (Side B) DMP (ccagent)		<ul style="list-style-type: none"> Public Low: TCP 41002 + (InstanceNumber * 40). Public Medium: TCP 41017 + (InstanceNumber * 40) Public High: TCP 41003 + (InstanceNumber * 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 + (InstanceNumber * 40)			AW (Distributor)	Real Time Feed
ICM Router B (rtfeed)		TCP 41007 + (InstanceNumber * 40)			AW (Distributor)	Real Time Feed
ICM Logger (Side A)		TCP 40026 + (InstanceNumber * 40) TCP 40028 + (InstanceNumber * 40)			AW Historical DataServer (HDS)	Replication



Table 1 Cisco ICM/IP Contact Center Enterprise Edition Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
ICM Logger (Side B)		TCP 41026 + (InstanceNumber * 40) TCP 41028 + (InstanceNumber * 40)			AW Historical DataServer (HDS)	Replication
Primary AW Distributor (rtfeed)		TCP 48008 + (InstanceNumber * 40)			Client AW	Real Time feed
Secondary AW Distributor (rtfeed)		TCP 49008 + (InstanceNumber * 40)			Client AW	Real Time feed
CICM Router (Side A) (INCRPNIC)		UDP 40025 + (InstanceNumber * 40)			NAM Router (CIC)	Public Network Connecting the NAM to the CICM
CICM Router (Side B) (INCRPNIC)		UDP 41025 + (InstanceNumber * 40)			NAM Router (CIC)	Public Network Connecting the NAM to the CICM
ICM Well Known		TCP 40000–49999			All nodes	
EMT		UDP 39500–39999			ICM Router, Logger Peripheral Gateway	Private path communication (MDS). Router to pre-5.0 PG communication.
<p>Note: For detailed information about ICM Well Known Protocol port allocation by instance number, see “Appendix: Ports Utilization Diagrams and Instance Breakdown by Protocol” on page 27.</p>						
Distributor, WebView/Internet Script Editor (ISE)						
MSSQL				TCP 1433	Logger Distributor	
IIS: HTTP		TCP 80			WebView Clients	
IIS: HTTP		TCP 80			ISE Clients	
IIS: HTTPS		TCP 443			ISE SSL Clients	
CONAPI				TCP 1099	Clients RMI Registry	Multimedia
Outbound Option (Blended Agent IP Dialer)						
SCCP				TCP 2000	CallManager	
RTP		UDP 32000–32100			Voice Gateway	Receive ports for reservation calls
		UDP 39100-39200			Voice Gateway	Receive ports for customer calls
TFTP				UDP 69	TFTP server	



Table 1 Cisco ICM/IP Contact Center Enterprise Edition Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port		Source Port	Remote Device Destination Port	Remote Device	Notes
TFTP File Transfer					Ephemeral		
CTI and CTI Object server							
CTI Server		Side A: TCP 42027	Side B: TCP 43027			CTI OS Toolkit Clients ARM Interface CTI OS Server CAD Server	Additional instances will cause this port number to change (configurable). For more information, see "Appendix: Ports Utilization Diagrams and Instance Breakdown by Protocol" on page 27.
CTI OS Server		TCP 42028				CTI OS Client CTI OS Server Peers CAD Desktop	CTI OS Clients include Softphones, Siebel Driver, and Custom Applications
MSSQL					TCP 1433	ICM Logger	
CTI OS Supervisor Desktop		UDP 39200				CTI OS Client	
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	Version 1.0(1) and above
Tomcat: HTTP		TCP 8188				Administration Client (Web)	Support Tools server
Tomcat: HTTPS		TCP 8189				Administration Client (Web)	Support Tools server



Table 1 Cisco ICM/IP Contact Center Enterprise Edition Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
TDM/IP Process Communications						
Note: For more information on ICM/IPCC peripheral communication, see the “ACD Supplement” user documentation for the specific switch you are using.						
IP Process Communications						
CTI/QBE				TCP 2748	CallManager	JTAPI
ICM/IVR message interface, VRU PIM		TCP 5000–5001			ISN AS + IPIVR	
MR PIM		TCP 2000			Media Routing process (e.g., CEM)	
TDM Process Communications						
Alcatel 4400 PIM				TCP 2555	Alcatel 4400	CSTA
Aspect PIM				TCP 8000	Aspect ACD	Used by real time bridge
Aspect Contact Center server PIM				TCP 6101	Aspect Contact Center server	application bridge
				TCP 6102		Event link
				TCP 9001		Event link
Avaya PIM		TCP 6060–6070		TCP 5678	Avaya ACD	Event link
					CMS	Call Management System
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



Table 1 Cisco ICM/IP Contact Center Enterprise Edition Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
NICs						
Note: 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						
RPC		TCP 135 UDP 135				For more information, see: • "Port Requirements for the Microsoft Windows Server System" (Microsoft Knowledge Base Article 832017).
NetBIOS Session		TCP 139				
NetBIOS Name Resolution		TCP 137 UDP 137				
NetBIOS Netlogon/ Browsing		UDP 138				
SMB		TCP 445 UDP 445				
LDAP		TCP 389 UDP 389				For more information, see: • "A List of the Windows Server Domain Controller Default Ports" (Microsoft Knowledge Base Article 289241). • "How to Configure a Firewall for Domains and Trusts" (Microsoft Knowledge Base Article 179442). • "How to Configure a Firewall for Domains and Trusts" (Microsoft Knowledge Base Article 179442).
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				



Table 1 Cisco ICM/IP Contact Center Enterprise Edition Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
SQL Server		TCP 1433 UDP 1434			Loggers Primary and Secondary Distributors	For more information, see: <ul style="list-style-type: none"> "TCP Ports Needed for Communication to SQL Server Through a Firewall" (Microsoft Knowledge Base Article 287932).
Network Management and Remote Administration						
SNMP		UDP 161				
SNMP-Trap		UDP 162				
Syslog		UDP 514				
Telnet		TCP 23				
RDP (Terminal Services)		TCP 3389				
pcAnywhere		TCP 5631 UDP 5632				
VNC HTTP helper		TCP 580x				
VNC Display		TCP 690x			Virtual Network Computer Display	



Cisco Agent Desktop (CAD) Port Utilization

For Product Revisions: CAD 6.0(1)

Table 2 Cisco Agent Desktop (CAD) Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination 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	
		UDP 59014 UDP 59016			Cisco Desktop Recording Server	
Cisco Desktop Base Servers						
LRM		TCP 65432			Cisco Agent Desktop 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				



Table 2 Cisco Agent Desktop (CAD) Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
LRM		TCP 65432			Cisco Desktop VoIP Monitor Server Cisco Desktop Recording Server	
Directory		TCP 38983				
LRM		TCP 65432			Cisco Desktop Administrator	
Enterprise		TCP 59004				
Directory		TCP 38983				
TAI		TCP 59010				
Sync		TCP 59011				
TrueUpdate		TCP 8088				
GED-188				Side A: TCP 42027 Side B: TCP 43027		CTI Server
MSSQL				TCP 1433	Cisco ICM Logger	Agent, Team, and Skill Lookup
Cisco Desktop VoIP Monitor Server						
Primary Server		TCP 59002			Cisco Agent Desktop Cisco Supervisor Desktop	
IP Discovery		TCP 37606				
MSSQL				TCP 1433	Cisco CallManager	Phone MAC Address Lookup
Cisco Desktop Recording Server						
Primary Server		TCP 59005			Cisco Agent Desktop Cisco Supervisor Desktop	
IP Discovery		TCP 59027				
RTP		UDP 59500 - 59700			Cisco Desktop VoIP Monitor Server	
CAD Media Termination (Softphone)						
SCCP (Skinny)				TCP 2000	Cisco CallManager	Call Control
RTP		UDP 16384-32767			IP Phones, VoIP Gateways, etc.	Media



Cisco Remote Monitoring Suite (RMS) Port Utilization

For Product Revisions: RMS 2.0(0)

Table 3 Cisco Remote Monitoring Suite (RMS) Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination 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 "HOWTO: Configure RPC Dynamic Port Allocation to Work with Firewall" at Microsoft KB 154596 for information about configuring RPC to work with a firewall.
EMT		TCP40012			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 the "Using Distributed COM with Firewalls" white paper at: http://www.microsoft.com/com/wpaper/dcomfw.asp
DCOM/RPC (AlarmTracker Client Tools)		TCP/UDP 135 TCP 1024-65535			LGArchiver	
SDDSN						
SDDSN Phone Home		TCP 40080			Third Party (for example, ISN)	
RPC, NetBIOS, SMB		TCP/UDP 135 TCP/UDP 137 TCP 139 UDP 138 TCP/UDP 445			Listener	SDDSN Server <-> Listener



Cisco E-Mail Manager Port Utilization

For Product Revisions: CEM 4.0.x, 5.0(0)

Table 4 Cisco E-Mail Manager Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
Tserver		TCP 1116			Rserver	
Tserver		TCP1116			UI server	
Tserver		TCP1116			CIR	
Tserver		TCP1116			LAMBDA	
Tserver		TCP 1099			RMI	
Tserver				TCP 1433	Sql server	
Tserver				TCP 1521	Oracle	
Tserver		TCP 1600			MR PIM	
Tserver				TCP 1099	CMS Jserver	
Tserver				TCP 42027	CTI server	
Tserver				TCP 25	SMTP	
InBasket		TCP 3000			Tserver	
InBasket		TCP 1201			Rserver	
InBasket				TCP 100	POP 3 server	
Rserver		TCP 8088			Browser	
Rserver		TCP 11239			InBasket	
Ulservice		TCP 80			Browser	
Ulservice		TCP 5000			Tserver	UI Event Port
Ulservice		TCP 5831			Browser	XML Long Poll Port
Ulservice		TCP 1441				XML TCP Port



Table 4 Cisco E-Mail Manager Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
Lambda				TCP 1433	Sql server	
Lambda				TCP 1521	Oracle	
CIR				TCP 1433	Sql server	
CIR				TCP 1521	Oracle	
Spell Engine		TCP 8600			Browser	
Report Engine		TCP 2021				
ARM				TCP 42027	CTI server	
MR				TCP 2000	ICM	



Cisco Collaboration Server Port Utilization

For Product Revisions: CCS 4.0, 5.0(0)

Table 5 Cisco Collaboration server Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
HTTP		TCP 80			Client PC	
HTTPS		TCP 443			Client PC	
CAPI		TCP 2210			Client PC	
RMI Registry		TCP 1099			CMB or CCS	
RMI Communication					CMB	Any available
RMI Communication					DCA	Any available
MSSQL				TCP 1433	MS SQL database server	
Oracle SQL				TCP1521	Oracle 8i database server	
ARM				TCP 42027	CTI server	
MR				TCP 2000	ICM	



Cisco Media Blender Port Utilization

For Product Revisions: CMB 4.x, 5.0(0)

Table 6 Cisco Media Blender Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
HTTP		TCP 80				
HTTPS		TCP 443				
RMI Registry		TCP 1099			CCS	Not configurable (also used for internal communication between Webapps UI server and DCA).
RMI Communication					CCS	Can be configured to specific port, must not be used by another service including RMI Registry.
ARM				TCP 42027	CTI server	
MR				TCP 2000	ICM	
ACD				ACD Dependent		May be configured depending on ACD model used.



Dynamic Content Adapter Port Utilization

For Product Revisions: DCA 2.x

Table 7 Dynamic Content Adapter Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
HTTP		TCP 80			Client PC	
HTTPS		TCP 443			Client PC	
RMI Registry		TCP 1099			CCS	Not configurable (also used for internal communication between Webapps UI server and DCA).
RMI Communication					CCS	Any available - DCA initiates the connection by default to CCS, but can be configured to be initiated in either direction.
HTTP				TCP 80	Webserver	Plus any requested - DCA proxies Web content and will be forwarded to any possible remote ports based on the request.
HTTPS				TCP 443	Webserver	



Cisco Internet Service Node Port Utilization

For Product Revisions: ISN 2.x

Table 8 Cisco Internet Service Node Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
Telnet		TCP23			Telnet Client	On by default (MCS)
VNC HTTP helper		TCP 580x				Remote Control
VNC Display		TCP 690x			Virtual Network Computer Display	Remote Control
Entercept HID Agent				TCP 5000	Host Intrusion Detection Console	
LDAP				TCP 8404	DCD Directory on CallManager	
SVCHOST		TCP 135		TCP 135		Windows Service Loader
NETBIOS-SSN		TCP139		TCP139		NETBIOS Session Service
SMB		TCP 445		TCP 445		Microsoft CIFS
		TCP 1039		TCP 1039		Windows Task Scheduler
RMI		TCP 1099		TCP 1099	RMI service	
H.323 RAS				TCP 1719	Gatekeeper RAS	CallManager prior to 3.3.(X) and Cisco Conference Connection"
H.323 RAS			TCP 1024-4999	TCP 1719	Gatekeeper RAS	CallManager 3.3
H.323 H.245		TCP 11000-11999			IOS H.323 Gateways	
HTTP		TCP 8000			VXML session Between the ISN Application server and the ISN Voice Browser	
HTTP		TCP 8001			Browser	ISN Diagnostics
Apache Java Connector Protocol		TCP 8007			VXML session Between the ISN Application server and the ISN Voice Browser	Communication between Tomcat and Apache



Table 8 Cisco Internet Service Node Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
LDAP		TCP 8404				
RTP	UDP 16384–32767			UDP 16384–32767	Voice Media	
IPCC Enterprise VRU CTI (ICM/IVR message interface)		TCP 5000			Between ISN Application Server and IPCC Enterprise/ICM VRU PG	Port number is configurable
ISN Alarm Forwarder		TCP 8163			Between the ISN Application server and the ISN Voice Browser	Proprietary protocol for receiving ISN Application server alarms
ICM Standalone Distributed Diagnostics Service Node (SDDSN)		TCP 40080			Between the ISN Application server and the ISN Voice Browser	Proprietary protocol for sending ISN alarms to SDDSN



Cisco IP IVR Port Utilization

For Product Revisions: IP IVR 3.x

Table 9 Cisco IP IVR Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
Telnet		TCP 23			Telnet Client	On by default
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
Entercept HID Agent				TCP 5000	Host Intrusion Detection Console	
SMTP				TCP 25	Email POP server	Email notification
HTTP		TCP 80			Administrator Web browsers	Required for system maintenance
LDAP				TCP 8404	DCD Directory on CallManager	
SVCHOST		TCP 135		TCP 135		Windows Service Loader
NETBIOS-SSN		TCP 139		TCP 139		NETBIOS Session Service
HTTPS / SSL		TCP 443				
SMB		TCP 445		TCP 445		Microsoft CIFS
		TCP 789		TCP789		WFEngineService Process
		TCP 1039		TCP 1039		Windows Task Scheduler
MS SQL		TCP 1042		TCP 1042		SQL server Process
RMI		TCP 1099		TCP 1099	RMI Service	
JDBC/SQL		TCP 1433		TCP 1433		
CTI/QBE				TCP 2748	CallManager	JTAPI
HTTP		TCP 8080		TCP 8080	User Web Browser/Web Server	HTTP Trigger/HTTP Steps



Table 9 Cisco IP IVR Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
RTP	UDP 16384 - 32767			UDP 16384 - 32767	Voice Media	
IPCC Enterprise VRU CTI (ICM/IVR message interface)		TCP 5000			IPCC Enterprise VRU PG	Port number is configurable.
Nuance						
Nuance Proprietary		TCP/UDP		TCP/UDP	Nuance Rec Client	No fixed port numbers are assigned. Uses first available port picked by OS socket interface at run time.
Telnet		TCP 7823 UDP 7823		TCP 7823 UDP 7823	Nuance Watcher Daemon	Can run on both the IP-IVR main server or on the ASR/TTS GFS server. This port is used by the Watcher Network component of both the Nuance ASR and Nuance TTS subsystems.
HTTP		TCP 7080 UDP 7080		TCP 7080 UDP 7080	Nuance Watcher Daemon	This port is only used if someone wishes to explicitly monitor the Watcher Daemon from a Web browser.
SNMP		TCP 7161 UDP 7161		TCP 7161 UDP 7161	Nuance Watcher Daemon	Not currently used.
Nuance Proprietary		UPD 8470			Nuance License Manager	Runs only on IP-IVR main server
Nuance Proprietary		UPD 7777			Nuance Resource Manager	
Nuance Proprietary		TCP 8200		TCP 8200	Nuance Recognition server	Can run on both the IP-IVR main server or on the ASR GFS server.
Nuance Proprietary		TCP 10101+		TCP 10101+	Nuance Compilation server	Configure to increment by one for each additional Compilation server (ASR Language) configured.



Table 9 Cisco IP IVR Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
Nuance Proprietary		TCP 32323+		TCP 32323+	Nuance Vocalizer 1.0/3.0 server	Configure to increment by one for each additional TTS server configured.



Cisco IPCC Express Port Utilization

For Product Revisions: IPCC Express 3.x

Table 10 Cisco IPCC Express Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
Telnet		TCP 23			Telnet Client	On by default
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
Entercept HID Agent				TCP 5000	Host Intrusion Detection Console	
SMTP				TCP 25	Email POP server	Email notification
HTTP		TCP 80			Administrator / Agents / Supervisors Web browsers	Required for system maintenance.
LDAP				TCP 8404	DCD Directory on CallManager	
SVCHOST		TCP 135		TCP 135		Windows Service Loader
NETBIOS-SSN		TCP139		TCP139		NETBIOS Session Service
HTTPS / SSL		TCP 443				
SMB		TCP 445		TCP 445		Microsoft CIFS
		TCP 789		TCP 789		WFEEngineService Process
		TCP 1039		TCP 1039		Windows Task Scheduler
MS SQL		TCP 1042		TCP 1042		SQL Server Process
RMI		TCP 1099		TCP 1099	RMI Server	
JDBC / SQL		TCP 1433		TCP 1433		
CTI/QBE				TCP 2748	CallManager	JTAPI



Table 10 Cisco IPCC Express Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
HTTP		TCP 6293			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 IPCC Express.
RTP	UDP 16384–32767			UDP 16384–32767	Voice Media	
IPCC Express CTI (subset of CTI Server message interface)		TCP 42027			Cisco Agent Desktop (CAD)	Port number is configurable.
SCCP				TCP 2000	CallManager	Used by the phones (media termination and hard phones) to communicate with the CallManager.
Cisco Agent Desktop						
Chat		TCP 59020			Cisco Desktop Chat Service	
Cisco Supervisor Desktop						
Chat		TCP 59021			Cisco Desktop Chat Service	
RTP Streams		UDP 59010–59012			Cisco Desktop VoIP Monitor Service	
Cisco Desktop VoIP Monitor Service						
Primary server port		TCP 59002			Cisco Desktop RASCAL Service, Cisco Supervisor Desktop	
IP discovery port		TCP 37606			Cisco Desktop RASCAL Service, Cisco Supervisor Desktop	
Cisco Desktop Chat Service						
Primary server port		TCP 59000			Cisco Desktop RASCAL Service, Cisco Supervisor Desktop, Cisco Desktop TAI Service	



Table 10 Cisco IPCC Express Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
IP discovery port		TCP 37350			Cisco Desktop RASCAL Service, Cisco Supervisor Desktop, Cisco Desktop TAI Service	
Cisco Desktop Rascal Service						
Primary server port		TCP 59003			Cisco Agent Desktop, Cisco Supervisor Desktop	
RTP streams		UDP 59100–59169			Cisco Desktop VoIP Monitor Service	
Cisco Desktop TAI Service		TCP 59010			Cisco Desktop Administrator	
Cisco Desktop Enterprise Service		TCP 59004			Cisco Desktop Administrator, Cisco Agent Desktop, Cisco Desktop TAI Service	
Cisco Desktop Sync Service		TCP 59011			Cisco Desktop Administrator	
RPC, NetBIOS, SMB		UDP 135–139 UDP 445 TCP 135–139 TCP 445			Cisco Agent Desktop, Cisco Supervisor Desktop, Cisco Desktop Administrator, IPCC Express Server	CAD server Licensing Shared Network Drive
Nuance						
Nuance Proprietary		TCP/UDP		TCP/UDP	Nuance Recognition Client	No fixed port numbers are assigned. Uses first available port picked by OS socket interface at run time.
Telnet		TCP 7823 UDP 7823		TCP 7823 UDP 7823	Nuance Watcher Daemon	Can run on both the IPCC Express main server or on the ASR/ TTS GFS server. This port is used by the Watcher Network component of both the Nuance ASR and Nuance TTS subsystems.



Table 10 Cisco IPCC Express Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
HTTP		TCP 7080 UDP 7080		TCP 7080 UDP 7080	Nuance Watcher Daemon	This port is only used if someone wishes to explicitly monitor the Watcher Daemon from a Web browser.
SNMP		TCP 7161 UDP 7161		TCP 7161 UDP 7161	Nuance Watcher Daemon	Not currently used.
Nuance Proprietary		UDP 8470			Nuance License Manager	Runs only on IPCC Express main server.
Nuance Proprietary		UDP 7777			Nuance Resource Manager	Runs only on IPCC Express main server.
Nuance Proprietary		TCP 8200		TCP 8200	Nuance Recognition Server	Can run on both the IPCC Express main server or on the ASR GFS server.
Nuance Proprietary		TCP 10101+		TCP 10101+	Nuance Compilation Server	Configure to increment by one for each additional Compilation server (ASR Language) configured.
Nuance Proprietary		TCP 32323+		TCP 32323+	Nuance Vocalizer 1.0/3.0 Server	Configure to increment by one for each additional TTS server configured.



Appendix: Ports Utilization Diagrams and Instance Breakdown by Protocol

This appendix contains detailed information about port allocation by instance number for product versions:

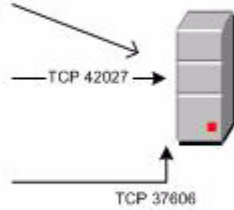
- ICM/IPCC 6.0(0)
- CTI OS 6.0(0)

Figure 1: Port Allocation Figure Legend

Legend:

Server Destination Port

Note: The arrow's end connection to a host represents that host's server listening port.

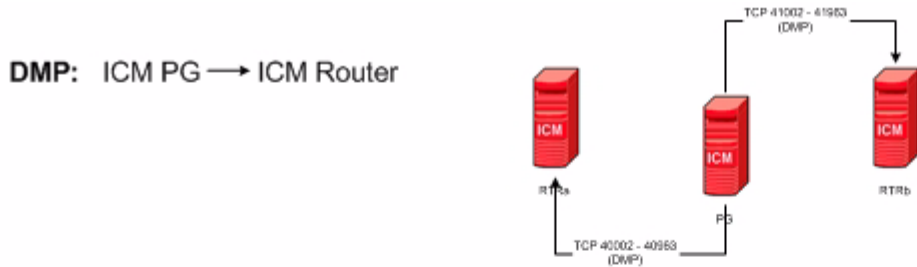


Protocol: TCP
Application: HTTP





Figure 2: DMP Port Allocation by Instance Number



		Side A	Side B
Instance 0	Low	TCP 40002	TCP 41002
	Medium	TCP 40017	TCP 41017
	High	TCP 40003	TCP 41003
Instance 1	Low	TCP 40042	TCP 41042
	Medium	TCP 40057	TCP 41057
	High	TCP 40043	TCP 41043
Instance 2	Low	TCP 40082	TCP 41082
	Medium	TCP 40097	TCP 41097
	High	TCP 40083	TCP 41083
Instance 3	Low	TCP 40122	TCP 41122
	Medium	TCP 40137	TCP 41137
	High	TCP 40123	TCP 41123
Instance 4	Low	TCP 40162	TCP 41162
	Medium	TCP 40177	TCP 41177
	High	TCP 40163	TCP 41163
Instance 5	Low	TCP 40202	TCP 41202
	Medium	TCP 40217	TCP 41217
	High	TCP 40203	TCP 41203
Instance 6	Low	TCP 40242	TCP 41242
	Medium	TCP 40257	TCP 41257
	High	TCP 40243	TCP 41243
Instance 7	Low	TCP 40282	TCP 41282
	Medium	TCP 40297	TCP 41297
	High	TCP 40283	TCP 41283
Instance 8	Low	TCP 40322	TCP 41322
	Medium	TCP 40337	TCP 41337
	High	TCP 40323	TCP 41323

		Side A	Side B
Instance 9	Low	TCP 40362	TCP 41362
	Medium	TCP 40377	TCP 41377
	High	TCP 40363	TCP 41363
Instance 10	Low	TCP 40402	TCP 41402
	Medium	TCP 40417	TCP 41417
	High	TCP 40403	TCP 41403
Instance 11	Low	TCP 40442	TCP 41442
	Medium	TCP 40457	TCP 41457
	High	TCP 40443	TCP 41443
Instance 12	Low	TCP 40482	TCP 41482
	Medium	TCP 40497	TCP 41497
	High	TCP 40483	TCP 41483
Instance 13	Low	TCP 40522	TCP 41522
	Medium	TCP 40537	TCP 41537
	High	TCP 40523	TCP 41523
Instance 14	Low	TCP 40562	TCP 41562
	Medium	TCP 40577	TCP 41577
	High	TCP 40563	TCP 41563
Instance 15	Low	TCP 40602	TCP 41602
	Medium	TCP 40617	TCP 41617
	High	TCP 40603	TCP 41603
Instance 16	Low	TCP 40642	TCP 41642
	Medium	TCP 40657	TCP 41657
	High	TCP 40643	TCP 41643
Instance 17	Low	TCP 40682	TCP 41682
	Medium	TCP 40697	TCP 41697
	High	TCP 40683	TCP 41683

		Side A	Side B
Instance 18	Low	TCP 40722	TCP 41722
	Medium	TCP 40737	TCP 41737
	High	TCP 40723	TCP 41723
Instance 19	Low	TCP 40762	TCP 41762
	Medium	TCP 40777	TCP 41777
	High	TCP 40763	TCP 41763
Instance 20	Low	TCP 40802	TCP 41802
	Medium	TCP 40817	TCP 41817
	High	TCP 40803	TCP 41803
Instance 21	Low	TCP 40842	TCP 41842
	Medium	TCP 40857	TCP 41857
	High	TCP 40843	TCP 41843
Instance 22	Low	TCP 40882	TCP 41882
	Medium	TCP 40897	TCP 41897
	High	TCP 40883	TCP 41883
Instance 23	Low	TCP 40922	TCP 41922
	Medium	TCP 40937	TCP 41937
	High	TCP 40923	TCP 41923
Instance 24	Low	TCP 40962	TCP 41962
	Medium	TCP 40977	TCP 41977
	High	TCP 40963	TCP 41963



Figure 3: CTI and Client AW Communication—Port Allocation by Instance Number



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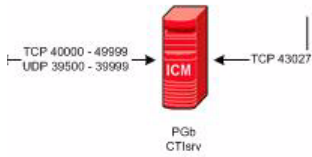
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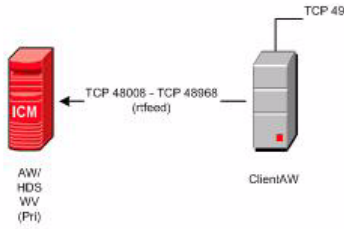
→ ICM CTI Server



Side A	Side B
CP 42027	TCP 43027
CP 42067	TCP 43067
CP 42107	TCP 43107
CP 42147	TCP 43147
CP 42187	TCP 43187
CP 42227	TCP 43227
CP 42267	TCP 43267
CP 42307	TCP 43307
CP 42347	TCP 43347
CP 42387	TCP 43387
CP 42427	TCP 43427
CP 42467	TCP 43467
CP 42507	TCP 43507
CP 42547	TCP 43547
CP 42587	TCP 43587
CP 42627	TCP 43627
CP 42667	TCP 43667
CP 42707	TCP 43707
CP 42747	TCP 43747
CP 42787	TCP 43787
CP 42827	TCP 43827
CP 42867	TCP 43867
CP 42907	TCP 43907
CP 42947	TCP 43947
CP 42987	TCP 43987

Real Time Feed:

Client AW → Distributor
(Primary and Sec



	Side A	Side B
Instance 0	TCP 48008	TCP 4
Instance 1	TCP 48048	TCP 4
Instance 2	TCP 48088	TCP 4
Instance 3	TCP 48128	TCP 4
Instance 4	TCP 48168	TCP 4
Instance 5	TCP 48208	TCP 4
Instance 6	TCP 48248	TCP 4
Instance 7	TCP 48288	TCP 4
Instance 8	TCP 48328	TCP 4
Instance 9	TCP 48368	TCP 4
Instance 10	TCP 48408	TCP 4
Instance 11	TCP 48448	TCP 4
Instance 12	TCP 48488	TCP 4
Instance 13	TCP 48528	TCP 4
Instance 14	TCP 48568	TCP 4
Instance 15	TCP 48608	TCP 4
Instance 16	TCP 48648	TCP 4
Instance 17	TCP 48688	TCP 4
Instance 18	TCP 48728	TCP 4
Instance 19	TCP 48768	TCP 4
Instance 20	TCP 48808	TCP 4
Instance 21	TCP 48848	TCP 4
Instance 22	TCP 48888	TCP 4
Instance 23	TCP 48928	TCP 4
Instance 24	TCP 48968	TCP 4

