

# Cisco Contact Center Product Port Utilization Guide

*For Cisco ICM/IP Contact Center Enterprise 4.6.2, 5.0(0), CTI OS 5.1, Support Tools 1.0(1), Cisco Agent Desktop 4.4.1, 4.6, 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*

*Last Updated: August 2, 2004*

## 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.



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**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.

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## Cisco ICM/IP Contact Center Enterprise and Hosted Editions Port Utilization

For Product Revisions: ICM 4.6.2, 5.0(0), CTI OS 5.1, CAD 4.4.1, 4.6

**Table 1** Cisco ICM/IP Contact Center Enterprise and Hosted Editions Port Utilization

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
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.
<b>Note:</b> For detailed information about ICM and EMT protocol port allocation by instance number, see “Appendix: Ports Utilization Diagrams and Instance Breakdown by Protocol” on page 22.						
Inspect		TCP 26268			InspectLog Management Client	Only used if the ICM Inspect application is used for system management or support.
<b>Distributor, WebView/Internet Script Editor (ISE)</b>						
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
<b>Outbound Option (Blended Agent IP Dialer)</b>						
SCCP				TCP 2000	CallManager	
RTP		UDP 32000–32100			CallManager	
TFTP				UDP 69	TFTP server	
TFTP File Transfer				Ephemeral		



**Table 1** Cisco ICM/IP Contact Center Enterprise and Hosted Editions Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port		Source Port	Remote Device Destination Port	Remote Device	Notes
<b>CTI and CTI Object server</b>							
CTI Server		Side A: TCP 42027	Side B: TCP 43027			CTI OS Toolkit Clients, ARM Interface, CTI OS server, CAD 4.6 (and below Clients and servers)	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 22.
CTI OS Server		TCP 42028				CTI OS Client CTI OS server Peers	CTI OS Clients include Softphones, Siebel Driver & Custom Apps
CTI OS Supervisor Desktop		UDP 8500				CTI OS Client	CTIOS 5.1
		UDP 39200				CTI OS Client	CTIOS 5.1 SR1 and above
Cisco Enterprise Data Store		TCP 42029				Siebel server	Support for screen call context
<b>Cisco Agent Desktop</b>							
Chat		TCP 59020				Cisco Desktop Chat Service	
Desktop Monitoring		TCP 59002				Cisco Supervisor Desktop, Cisco Desktop RASCAL Service	CAD 4.6 and higher only
<b>Cisco Supervisor Desktop</b>							
Chat		TCP 59021				Cisco Desktop Chat Service	
RTP streams		UDP 59010 UDP 59012				Cisco Desktop VoIP Monitor Service	
						Cisco Agent Desktop	CAD 4.6 and higher only



**Table 1** Cisco ICM/IP Contact Center Enterprise and Hosted Editions Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
<b>Cisco Desktop VoIP Monitor Service</b>						
Primary server port		TCP 59002			Cisco Desktop RASCAL Service, Cisco Supervisor Desktop	
IP discovery port		TCP 37606			Cisco Agent Desktop	CAD 4.6 and higher only
<b>Cisco Desktop Chat Service</b>						
Primary server port		TCP 59000			Cisco Agent Desktop, Cisco Supervisor Desktop, Cisco Desktop TAI Service	
IP discovery port		TCP 37350				
<b>Cisco Desktop RASCAL Service</b>						
Primary server port		TCP 59003			Cisco Agent Desktop, Cisco Supervisor Desktop	
RTP streams		UDP 59100–59169			Cisco Desktop VoIP Monitor Service	
					Cisco Agent Desktop	CAD 4.6 and higher only
Cisco Desktop TAI Service		TCP 59010			Cisco Desktop Administrator	
Cisco Desktop Directory Service		TCP 38983			Cisco Agent Desktop, Cisco Supervisor Desktop and all other Cisco Desktop Services	
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	CAD server Licensing Shared Network Drive



**Table 1** Cisco ICM/IP Contact Center Enterprise and Hosted Editions Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
SCCP				TCP 2000	CallManager	CTI OS and CAD Media Termination Clients
RTP		UDP 16384–32767			IP Phones, Softphones, Media Termination Clients	CTI OS and CAD Media Termination Clients
<b>Cisco Support Tools</b>						
Support Tools Node Agent		TCP 40081 / TCP 39100			Support Tools Application server	TCP 40081 (release 1.0(0)) TCP 39100 (release 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
<b>TDM/IP Process Communications</b>						
<b>Note:</b> For more information on ICM/IPCC peripheral communication, see the “ACD Supplement” user documentation for the specific switch you are using.						
<i>IP Process Communications</i>						
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)	
<i>TDM Process Communications</i>						
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



**Table 1** Cisco ICM/IP Contact Center Enterprise and Hosted Editions Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
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
<b>NICs</b>						
<p><b>Note:</b> 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. Also refer to “Appendix: Ports Utilization Diagrams and Instance Breakdown by Protocol” on page 22 for port allocation in a Hosted environment for the INCRP protocol.</p>						
<b>Windows Authentication and Remote Administration Ports</b>						
RPC		TCP 135 UDP 135				For more information, see: <ul style="list-style-type: none"> <li>“Port Requirements for the Microsoft Windows Server System” (Microsoft Knowledge Base Article 832017).</li> </ul>
NetBIOS Session		TCP 139				
NetBIOS Name Resolution		TCP 137 UDP 137				
NetBIOS Netlogon/Browsing		UDP 138				
SMB		TCP 445 UDP 445				



**Table 1** Cisco ICM/IP Contact Center Enterprise and Hosted Editions Port Utilization (Continued)

Protocol	Remote Source Port	Destination Port	Source Port	Remote Device Destination Port	Remote Device	Notes
LDAP		TCP 389 UDP 389				For more information, see: <ul style="list-style-type: none"> <li>• "A List of the Windows Server Domain Controller Default Ports" (Microsoft Knowledge Base Article 289241).</li> <li>• "How to Configure a Firewall for Domains and Trusts" (Microsoft Knowledge Base Article 179442).</li> <li>• "How to Configure a Firewall for Domains and Trusts" (Microsoft Knowledge Base Article 179442).</li> </ul>
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			Loggers, Primary and Secondary Distributors, CTI OS Servers, CAD Servers	For more information, see: <ul style="list-style-type: none"> <li>• "TCP Ports Needed for Communication to SQL Server Through a Firewall" (Microsoft Knowledge Base Article 287932).</li> </ul>
<b>Network Management and Remote Administration</b>						
SNMP		UDP 161				
SNMP-Trap		UDP 162				
Syslog		UDP 514				
Telnet		TCP 23				
RDP (Terminal Services)		TCP 3389				
pcAnywhere		TCP 5631 UDP 5632				



## Cisco E-Mail Manager Port Utilization

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

**Table 2** 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 2** 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 3** 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 4** 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 5** 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 6** 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 6** 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 Sever 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 7** 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 Servver	
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 7** 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.
<b>Nuance</b>						
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 7** 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 8** 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 Service	
JDBC / SQL		TCP 1433		TCP 1433		
CTI/QBE				TCP 2748	CallManager	JTAPI



**Table 8** 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
<b>Cisco Agent Desktop</b>						
Chat		TCP 59020			Cisco Desktop Chat Service	
<b>Cisco Supervisor Desktop</b>						
Chat		TCP 59021			Cisco Desktop Chat Service	
RTP Streams		UDP 59010–59012			Cisco Desktop VoIP Monitor Service	
<b>Cisco Desktop VoIP Monitor Service</b>						
Primary server port		TCP 59002			Cisco Desktop RASCAL Service, Cisco Supervisor Desktop	
IP discovery port		TCP 37606			Cisco Desktop RASCAL Service, Cisco Supervisor Desktop	
<b>Cisco Desktop Chat Service</b>						
Primary server port		TCP 59000			Cisco Desktop RASCAL Service, Cisco Supervisor Desktop, Cisco Desktop TAI Service	



**Table 8** 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	
<b>Cisco Desktop Rascal Service</b>						
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
<b>Nuance</b>						
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 8** 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 5.0(0)
- CTI OS 5.1 SR1
- CAD 4.6
- IP-IVR 3.x
- ISN 2.x

Figure 1: Port Allocation Figure Legend

### Legend:

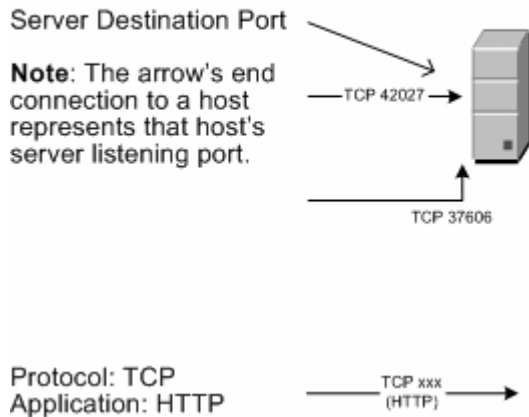
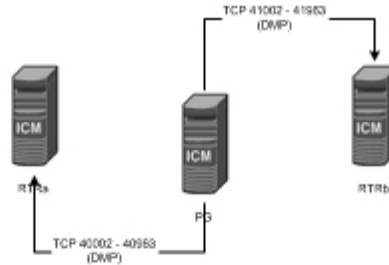




Figure 2: DMP Port Allocation by Instance Number (release 5.0(0) and above)

DMP: ICM PG → ICM Router

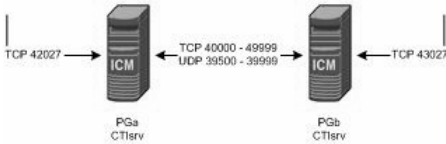


		Side A	Side B			Side A	Side B			Side A	Side B
Instance 0	Low	TCP 40002	TCP 41002	Instance 9	Low	TCP 40362	TCP 41362	Instance 18	Low	TCP 40722	TCP 41722
	Medium	TCP 40017	TCP 41017		Medium	TCP 40377	TCP 41377		Medium	TCP 40737	TCP 41737
	High	TCP 40003	TCP 41003		High	TCP 40363	TCP 41363		High	TCP 40723	TCP 41723
Instance 1	Low	TCP 40042	TCP 41042	Instance 10	Low	TCP 40402	TCP 41402	Instance 19	Low	TCP 40762	TCP 41762
	Medium	TCP 40057	TCP 41057		Medium	TCP 40417	TCP 41417		Medium	TCP 40777	TCP 41777
	High	TCP 40043	TCP 41043		High	TCP 40403	TCP 41403		High	TCP 40763	TCP 41763
Instance 2	Low	TCP 40082	TCP 41082	Instance 11	Low	TCP 40442	TCP 41442	Instance 20	Low	TCP 40802	TCP 41802
	Medium	TCP 40097	TCP 41097		Medium	TCP 40457	TCP 41457		Medium	TCP 40817	TCP 41817
	High	TCP 40083	TCP 41083		High	TCP 40443	TCP 41443		High	TCP 40803	TCP 41803
Instance 3	Low	TCP 40122	TCP 41122	Instance 12	Low	TCP 40482	TCP 41482	Instance 21	Low	TCP 40842	TCP 41842
	Medium	TCP 40137	TCP 41137		Medium	TCP 40497	TCP 41497		Medium	TCP 40857	TCP 41857
	High	TCP 40123	TCP 41123		High	TCP 40483	TCP 41483		High	TCP 40843	TCP 41843
Instance 4	Low	TCP 40162	TCP 41162	Instance 13	Low	TCP 40522	TCP 41522	Instance 22	Low	TCP 40882	TCP 41882
	Medium	TCP 40177	TCP 41177		Medium	TCP 40537	TCP 41537		Medium	TCP 40897	TCP 41897
	High	TCP 40163	TCP 41163		High	TCP 40523	TCP 41523		High	TCP 40883	TCP 41883
Instance 5	Low	TCP 40202	TCP 41202	Instance 14	Low	TCP 40562	TCP 41562	Instance 23	Low	TCP 40922	TCP 41922
	Medium	TCP 40217	TCP 41217		Medium	TCP 40577	TCP 41577		Medium	TCP 40937	TCP 41937
	High	TCP 40203	TCP 41203		High	TCP 40563	TCP 41563		High	TCP 40923	TCP 41923
Instance 6	Low	TCP 40242	TCP 41242	Instance 15	Low	TCP 40602	TCP 41602	Instance 24	Low	TCP 40962	TCP 41962
	Medium	TCP 40257	TCP 41257		Medium	TCP 40617	TCP 41617		Medium	TCP 40977	TCP 41977
	High	TCP 40243	TCP 41243		High	TCP 40603	TCP 41603		High	TCP 40963	TCP 41963
Instance 7	Low	TCP 40282	TCP 41282	Instance 16	Low	TCP 40642	TCP 41642				
	Medium	TCP 40297	TCP 41297		Medium	TCP 40657	TCP 41657				
	High	TCP 40283	TCP 41283		High	TCP 40643	TCP 41643				
Instance 8	Low	TCP 40322	TCP 41322	Instance 17	Low	TCP 40682	TCP 41682				
	Medium	TCP 40337	TCP 41337		Medium	TCP 40697	TCP 41697				
	High	TCP 40323	TCP 41323		High	TCP 40683	TCP 41683				



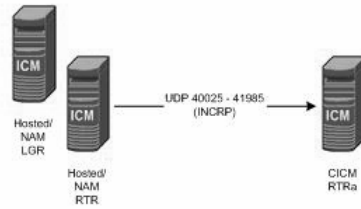
Figure 3: CTI, INCRP, and Real Time Feed Port Allocation by Instance Number

**CTI:**  
CTI Clients → ICM CTI Server



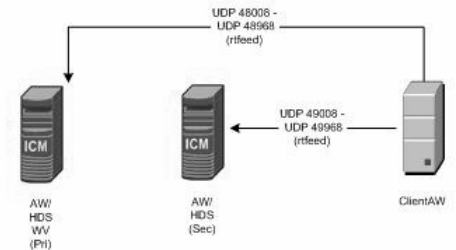
	Side A	Side B
Instance 0	TCP 42027	TCP 43027
Instance 1	TCP 42067	TCP 43067
Instance 2	TCP 42107	TCP 43107
Instance 3	TCP 42147	TCP 43147
Instance 4	TCP 42187	TCP 43187
Instance 5	TCP 42227	TCP 43227
Instance 6	TCP 42267	TCP 43267
Instance 7	TCP 42307	TCP 43307
Instance 8	TCP 42347	TCP 43347
Instance 9	TCP 42387	TCP 43387
Instance 10	TCP 42427	TCP 43427
Instance 11	TCP 42467	TCP 43467
Instance 12	TCP 42507	TCP 43507
Instance 13	TCP 42547	TCP 43547
Instance 14	TCP 42587	TCP 43587
Instance 15	TCP 42627	TCP 43627
Instance 16	TCP 42667	TCP 43667
Instance 17	TCP 42707	TCP 43707
Instance 18	TCP 42747	TCP 43747
Instance 19	TCP 42787	TCP 43787
Instance 20	TCP 42827	TCP 43827
Instance 21	TCP 42867	TCP 43867
Instance 22	TCP 42907	TCP 43907
Instance 23	TCP 42947	TCP 43947
Instance 24	TCP 42987	TCP 43987

**INCRP (Hosted):**  
NAM Router → CICM Router



	Side A	Side B
Instance 0	UDP 40025	UDP 41025
Instance 1	UDP 40065	UDP 41065
Instance 2	UDP 40105	UDP 41105
Instance 3	UDP 40145	UDP 41145
Instance 4	UDP 40185	UDP 41185
Instance 5	UDP 40225	UDP 41225
Instance 6	UDP 40265	UDP 41265
Instance 7	UDP 40305	UDP 41305
Instance 8	UDP 40345	UDP 41345
Instance 9	UDP 40385	UDP 41385
Instance 10	UDP 40425	UDP 41425
Instance 11	UDP 40465	UDP 41465
Instance 12	UDP 40505	UDP 41505
Instance 13	UDP 40545	UDP 41545
Instance 14	UDP 40585	UDP 41585
Instance 15	UDP 40625	UDP 41625
Instance 16	UDP 40665	UDP 41665
Instance 17	UDP 40705	UDP 41705
Instance 18	UDP 40745	UDP 41745
Instance 19	UDP 40785	UDP 41785
Instance 20	UDP 40825	UDP 41825
Instance 21	UDP 40865	UDP 41865
Instance 22	UDP 40905	UDP 41905
Instance 23	UDP 40945	UDP 41945
Instance 24	UDP 40985	UDP 41985

**Real Time Feed:**  
Client AW → Distributors  
(Primary and Secondary)



	Side A	Side B
Instance 0	TCP 48008	TCP 49008
Instance 1	TCP 48048	TCP 49048
Instance 2	TCP 48088	TCP 49088
Instance 3	TCP 48128	TCP 49128
Instance 4	TCP 48168	TCP 49168
Instance 5	TCP 48208	TCP 49208
Instance 6	TCP 48248	TCP 49248
Instance 7	TCP 48288	TCP 49288
Instance 8	TCP 48328	TCP 49328
Instance 9	TCP 48368	TCP 49368
Instance 10	TCP 48408	TCP 49408
Instance 11	TCP 48448	TCP 49448
Instance 12	TCP 48488	TCP 49488
Instance 13	TCP 48528	TCP 49528
Instance 14	TCP 48568	TCP 49568
Instance 15	TCP 48608	TCP 49608
Instance 16	TCP 48648	TCP 49648
Instance 17	TCP 48688	TCP 49688
Instance 18	TCP 48728	TCP 49728
Instance 19	TCP 48768	TCP 49768
Instance 20	TCP 48808	TCP 49808
Instance 21	TCP 48848	TCP 49848
Instance 22	TCP 48888	TCP 49888
Instance 23	TCP 48928	TCP 49928
Instance 24	TCP 48968	TCP 49968





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