Port Utilization in Unified CVP

- Port Utilization Table Columns, on page 1
- Unified CVP Port Utilization, on page 2

Port Utilization Table Columns

The columns in the port utilization tables in this document describe the following:

Listener (Process or Application Protocol)

A value representing the server or application and where applicable, the open or proprietary application protocol.

Listener Protocol and 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 Device (Process or Application Protocol)

The remote application or device making a connection to the server or service specified by the protocol; or listening on the remote protocol and port.

Remote Protocol and 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.

Traffic Direction

The direction that traffic flows through the port: Inbound, Bidirectional, Outbound.

Note The operating system dynamically assigns the source port that the local application or service uses to connect to the destination port of a remote device. In most cases, this port is assigned randomly above TCP/UDP 1024.

Unified CVP Port Utilization

Note The Operations Console Server uses dynamic ports for communication with other components. You cannot deploy that server with a firewall between it and the other Unified CVP components.

Table 1: Cisco Unified Customer Voice Portal Port Utilization

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
TCP	2000-2002				Sub to phone
Call Server JMX	2098	JConsole			JMX access by JConsole into Call Server
CVP Messaging Layer	TCP 23000 - 28000 (First available)	CVP Subsystem			CVP Message Bus communications
7960-CUVA Video	UDP 5445	7960-CUVA			Cisco 7960-CUVA Video Phone
CVP SIP Subsystem, SIP Proxy Server, Gateway, Unified CM: SIP (Session Initiation Protocol)	UDP 5060 TCP 5060	SIP endpoints			Listen port for incoming SIP requests. Port is configurable.
VXML Server: HTTP	TCP 7000	IOS VXML gateways			VXML over HTTP. Calls/sessions answered on port 7000 by HTTP server which relays request to WAS on local system port 9080.
VXML Server: HTTPS	TCP 7443	IOS VXML gateways			VXML over HTTPS. Calls/sessions answered on port 7443 by HTTPS server.
VXML Server with Tomcat	TCP 7005	Local machine			Port restricted to local access only
	TCP 7009				AJP/1.3 Connector
VXML Server JMX	TCP 9696	JConsole			JMX access by JConsole into VXML Server
VXML Server	TCP 10100	Local VXML Server Administration Scripts			Port restricted to local access only
CVP IVR Subsystem: HTTP	TCP 8000	Voice Browsers			VXML over HTTP

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
CVP IVR Subsystem: HTTPS	TCP 8443	Voice Browsers			VXML over HTTPS
CVP IVR Subsystem: HTTP	TCP 8005	Local machine			
CVP IVR Subsystem: HTTP Admin	TCP 8008				WAS and HTTP Server communicate with each other through HTTP Admin on port 8008.
CVP OPSConsole: HTTP	TCP 9000	Web Browser			Web based interface for configuring CVP components
CVP OPSConsole: HTTPS	TCP 9443	Web Browser			Web based interface for configuring CVP components with SSL
CVP OPSConsole	TCP 9005	Local machine			Port restricted to local access only
CVP OPSConsole	TCP 9009				AJP/1.3 Connector
CVP OPSConsole	TCP 1529	Local machine			Port restricted to local access only
CVP Resource Manager FTP Server	TCP 21	Content Services Switch			Only opened by Resource Manager residing on the same machine as the CVP OPSConsole
CVP Resource Manager	TCP 2099	CVP OPSConsole			JMX communication from OPSConsole to CVP Resource Manager on remote device
CVP Resource Manager Java Service Wrapper	TCP 32000 - 32999 (first available)	JVM instance launched by wrapper			CVP Resource Manager Service Wrapper will no longer accept connections after the first JVM instance is connected.
MRCP V1 (RTSP)	TCP 554	VXML gateway			MRCP session between gateway voice browser and MRCP server. This is the signaling path; the media path uses RTP. Also, Helix streaming audio/ ASR/TTS (MRCP/RTSP)
MCRP V2 (SIP)	TCP 5060	VXML gateway			MRCP session between gateway voice browser and MRCP server. This is the signaling path; the media path uses RTP.

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
RTP/RTCP	UDP 16384-32767		UDP 16384-32767		Voice Media RTP is typically assigned an EVEN number port and the RTCP is typically the next higher port number.
CVP SNMP SubAgent	UDP 5517, 5519, 5521, 5523, 5525, 5527, 5529, 5531, 5533, 5535, 5537, 5539, 5541, 5543, 5545, 5547, 5549, 5551, 5553, 5555	CVP SNMP subsystem			CVP SNMP SubAgent services local requests from CVP SNMP subsystem
CVP SNMP subsystem	UDP 5516, 5518, 5520, 5522, 5524, 5526, 5528, 5530, 5532, 5534, 5536, 5538, 5540, 5542, 5544, 5546, 5548, 5550, 5552, 5554	CVP SNMP SubAgent			CVP SNMP subsystem services local requests from CVP SNMP SubAgent
CVP ICM Subsystem	TCP 5000	IPCC Enterprise VRU CTI (ICM/IVR message interface)			Between CVP ICM Subsystem (Call Server) and Unified CCE/ICM VRU PG. Port is configurable.
Web Server: HTTP	TCP 80	Voice Browsers			Voice browsers fetches media and "External VXML" files from media server. Port is configurable
Web Server: HTTPS	TCP 443	Voice Browsers			Voice browsers fetches media and "External VXML" files from media server. Port is configurable
IBM Informix	TCP 1526	CVP Reporting Subsystem			Database Connection
IBM Informix Storage Manager	TCP 7939 - 7942 TCP 111				IBM Informix Storage Manager Services
IBM WAS Console	TCP 9043, 9060				

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
CVP Web Services Manager: HTTP	TCP 8101, 8110, 8111 TCP 10001, 10002	Unified System CLI, Diagnostic Portal, Custom Agent Desktop			REST Web Services The TCP 10001 and 10002 OAMP ports are used for transferring data related to the configuration and administration of VXML Server and Call Server.

Table 2: Network Management and Remote Administration

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
SNMP Master Agent	UDP 161	SNMP Management Application			SNMP Master Agent listens for requests from remote SNMP management application and sends responses via UDP port 161.
SNMP Master Agent	TCP 7161	Local SNMP subagents			SNMP Master Agent listens for TCP connections from local SNMP subagents.
SNMP–Trap	UDP 162	SNMP Master Agent			SNMP Master Agent sends SNMP traps to SNMP management application.
Syslog	UDP 514				Syslog protocol provides a transport to allow a machine to send event notification messages across IP network to event message collectors. Port is configurable.
SSH	TCP 22				Port 22 for those who use SSH instead of telnet on AIX.
Telnet	TCP 23				
RDP (TerminalServices)	TCP 3389				
pcAnywhere	TCP 5631 UDP 5632				

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
VNC	TCP 5900 TCP 5800				

Table 3: Windows Authentication and Remote Administration Ports

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
RPC	TCP 135				
NetBIOS Session	TCP 139				
NetBIOS Name Resolution	TCP 137 UDP 137				
NetBIOS Netlogon/ Browsing	UDP 138				
SMB	TCP 445 UDP 445				Microsoft CIFS
DNS	TCP 53 UDP 53				
NTP	UDP 123				
optima-vnet	TCP 1051				TCP Optima VNET
optima-vnet	UDP 1051				UDP Optima VNET

Note For more information on Windows authentication and remote administration ports, see: “Service overview and network port requirements for the Windows Server system” (Microsoft Knowledge Base Article Q832017).