Avaya Solutions Platform S8300 R5.1

Port Matrix – S8300

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Version Control Table

Version Number	Author	Purpose/Change	Date
Rev 1.0	R&D Engineering Team	Initial revision	February 2022

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1 S8300E Interface ports

Data flows and their sockets are owned and directed by an application. For all applications, sockets are created on the network interfaces on the server. For the purposes of firewall configuration, these sockets are sourced from the server, so the firewall should be running on the same server.
Application components in the Avaya Solutions Platform S8300E are listed as follows.

S8300E Server

Component	Interface	Description
Management	"Management Network" interface / vSwitch0 / Media Gateway LAN ports	The Avaya Solutions Platform S8300 can be managed from an Avaya Aura® System Manager, Solution Deployment Manager Client, or from a PC or laptop with an SSH client through the "Public" interface
Management	"Services" interface / vSwitch1 / Services Port on S8300E faceplate	The Avaya Solutions Platform S8300 can be managed from a Solution Deployment Manager Client or an SSH client on a laptop through the "Services" interface located on the server's front panel.
Guest VM Traffic	Media Gateway LAN ports	Guest Virtual Machines (applications) can be configured to use any of the ports for management and general traffic. Please see the applications' port matrix documents for further details.

2 Port Usage Table

2.1 Port Usage Table Heading Definitions

Source System: System name or type that initiates connection requests.

Source Port: This is the default layer-4 port number of the connection source. Valid values include: 0 – 65535. A "(C)" next to the port number means that the port number is configurable.
Destination System: System name or type that receives connection requests.
Destination Port: This is the default layer-4 port number to which the connection request is sent. Valid values include: 0 – 65535. A "(C)" next to the port number means that the port number is configurable.
Network/Application Protocol: This is the name associated with the layer-4 protocol and layers-5-7 application.
Optionally Enabled / Disabled: This field indicates whether customers can enable or disable a layer-4 port changing its default port setting. Valid values include: Yes or No

"No" means the default port state cannot be changed (e.g. enable or disabled).

"Yes" means the default port state can be changed and that the port can either be enabled or disabled.

Default Port State: A port is either open, closed or filtered.

Open ports will respond to queries.

Closed ports may or may not respond to queries and are only listed when they can be optionally enabled.

Filtered ports can be open or closed. Filtered UDP ports will not respond to queries. Filtered TCP will respond to queries but will not allow connectivity.

Description: Connection details. Add a reference to refer to the Notes section after each table for specifics on any of the row data, if necessary.

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3 S8300E Port Information

Below are the tables which document the port usage for this product.

3.1 Ports for Avaya Solutions Platform S8300E

Source		Destination		Network / Application Protocol	Optionally Enabled / Disabled?	Default Port State	Description
System	**Port (Configurable Range)**	**System**	**Port (Configurable Range)**				
Client PC	Ephemeral	ASP S8300	22	TCP / SSH	Yes	Open	SSH Server
ASP S8300	Ephemeral	DNS Server	53	UDP / DNS	No	N/A	DNS Client
Client PC	Ephemeral	ASP S8300	80	TCP / HTTP	No	Open	Redirect Web Browser to HTTPS Service (443)
ASP S8300	Ephemeral	NTP Time Server	123	UDP	No	N/A	NTP Client
SMGR, SDM Client	Ephemeral	ASP S8300	443	TCP /HTTPS	No	Open	VI / vSphere Client to ESXi/ESX Host management connection; Embedded Host Web UI
ASP S8300	Ephemeral	Syslog Server	514	UDP	No	N/A	Remote syslog logging
ASP S8300	Ephemeral	Syslog Server	514	TCP	No	N/A	Remote syslog logging
ASP S8300	Ephemeral	Syslog Server	6514	TLS	No	N/A	Remote syslog logging
vSphere Client	Ephemeral	ASP S8300	902	TCP	No	Open	vSphere Client access to virtual machine consoles (MKS). Legacy interface for VM console access. See https://kb.vmware.com/s/article/76672 for more information
CIM Server	Ephemeral	ASP S8300	5988	TCP	No	Open	CIM transactions over HTTP
CIM Secure Server	Ephemeral	ASP S8300	5989	TCP	No	Open	CIM transactions over HTTPS

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4 VMware ESXi 7.0 Port Information

The VMware Host Client allow users to open and close firewall ports for each service or to allow traffic from selected IP addresses.

ESXi includes a firewall that is enabled by default. At installation time, the ESXi firewall is configured to block incoming and outgoing traffic, except traffic for services thatare enabled in the host's security profile

NOTE: For further information please reference to the **ESXi 7.0 vSphere Security Guide** and VMware port matrix for vSphere 7

4.1 Incoming Firewall Connection

Table 1

Port	Protocol	Source	Target	Default Port State	Purpose	Classification
9	UDP	vCenter Server	ESXi Host Management Interface	Open	Wake-on-LAN for Dynamic Power Management	Bidirectional
22	TCP	SSH Client – Service Laptop	ESXi Host Management Interface	Open	Required for SSH access - Troubleshooting	Incoming
68	UDP	DHCPv4 Server	ESXi Host Management Interface	Closed	DHCPv4 client - DHCPOFFER, DHCPACK	Incoming
80	TCP	Management Workstations	ESXi Host Management Interface	Open	Redirect requests from HTTP to HTTPS	Incoming
161	UDP	SNMP Manage ment System	ESXi Host Management Interface	Closed	SNMP access for monitoring and management	Incoming
319,320	UDP	Precision Time Protocol Servers	ESXi Host Management Interface	Closed	High resolution timekeeping for ESXi and workloads	Incoming
427	TCP/UDP	Management Workstations	ESXi Host Management Interface	Open	The CIM client uses the Service Location Protocol, version2 (SLPv2) to find CIM servers. CIM/SLP access for monitoring and management	Incoming

Port	Protocol	Source	Target	Default Port State	Purpose	Classification
427	TCP/UDP	Management Workstations	ESXi Host Management Interface	Open	The CIM client uses the Service Location Protocol, version2 (SLPv2) to find CIM servers. CIM/SLP access for monitoring and management	Incoming
443	TCP	Management Workstations	ESXi Host Management Interface	Open	Primary management interface for ESXi, including theVMware Host Client. Primary interface for VM console access, using vSphereClient or VMRC version 11 or later. See https://kb.vmware.com/s/article/76672.	Incoming
546,547	UDP	DHCPv6 Server	ESXi Host Management Interface	Open	DHCPv6 client - DHCPDISCOVER, DHCPREQUEST	Incoming
902	TCP	vCenter Server Managemen t IP Address	ESXi Management IP addresses	Open	Core management communications between vCenterServer and ESXi. Legacy interface for VM console access. See https://kb.vmware.com/s/article/76672for moreinformation.	Incoming
902	TCP	Administrati on Systems Requiring VM Console Access	ESXi Management IP addresses	Open	Legacy interface for VM console access. See https://kb.vmware.com/s/article/76672for moreinformation.	Incoming
902	TCP	Backup Servers	ESXi Management IP addresses	Open	NFC/NBD-based Transfers for Backups	Incoming

Port	Protocol	Source	Target	Default Port State	Purpose	Classification
902	TCP	ESXi Management IP addresses	ESXi Management IP addresses	Open	NFC/NBD-based Transfers for Content Library	Incoming
902	TCP	vCenter Server Management IP address	ESXi Management IP addresses	Open	Core management communications between vCenter Server and ESXi	Incoming
988	TCP	CIM Administra tionSystem	ESXi Management IPaddresses	Closed	CIM/SLP access for monitoring and management	Incoming
5989	TCP	CIM Administra tionSystem	ESXi Management IPaddresses	Closed	CIM/SLP access for monitoring and management	Incoming
5988,8889	TCP	CIM Server 8889-OpenWSMAN Daemon	ESXi Management IPaddresses	Closed	5988-Server for CIM (Common Information Model) 8889-Web Services Management (WS-Management is a DMTF open standard for the management of servers,devices, applications, and Web services	Incoming
8000	TCP	ESXi vMotio n IP addres ses	ESXi vMotion IP addresse s	Open	Required for virtual machine migration with vMotion. ESXi hosts listen on port 8000 for TCP connectionsfrom remote ESXi hosts for vMotion traffic.	Bidirectional
8182	TCP/UDP	ESXi Management IP addresses	ESXi Management IP addresses	Closed	vSphere High Availability Communications	Bidirectional
8100,8200 8300	TCP	ESXi Managemen t IP addresses	ESXi Management IPaddresses	Open	vSphere Fault Tolerance Communications Traffic between hosts for vSphere Fault Tolerance (FT).	Bidirectional
8301 8302	UDP	ESXi Managemen t IP addresses	ESXi Management IPaddresses	Closed	DVSSync ports are used for synchronizing states of distributed virtual ports between hosts that have VMwareFT record/replay enabled. Only hosts that run primary or backup virtual machines must have these ports open. On hosts that are not using VMware FT these ports do not have to be open.	Bidirectional
9080	TCP	vCenter Server Management IP address	ESXi Management IP addresses	Open	vSphere Replication Communications	Incoming

4.2 Outgoing Firewall Connection

Table 2

Port	Protocol	Source	Target	Default Port State	Purpose	Classification
9	UDP	vCenter Server	ESXi Host Management Interface	N/A Egress Traffic	Wake-on-LAN for Dynamic Power Management	Bidirectional
53	TCP/UDP	ESXi Management IP addresses	DNS Resolvers	N/A Egress Traffic	DNS client	Outgoing
67	UDP	ESXi Management IP addresses	DHCPv4 Server	N/A Egress Traffic	DHCPv4 client - DHCPDISCOVER, DHCPREQUEST	Outgoing
80	TCP	vCenter Server Management IP address	ESXi Management IPaddresses	N/A Egress Traffic	vSphere Lifecycle Manager Communications	Outgoing
88	TCP	Microsoft Active Directory Domain Controllers	ESXi Management Interface	N/A Egress Traffic	Kerberos for IWA	Outgoing
123	UDP	ESXi Management IP addresses	NTP Server	N/A Egress Traffic	NTP for time synchronization	Outgoing
319,320	UDP	ESXi Management IP addresses	Precision Time Protocol Servers	N/A Egress Traffic	High resolution timekeeping for ESXi and workloads	Outgoing
389	TCP/UDP	ESXi Management IPaddresses	Microsoft Active Directory Domain Controllers	N/A Egress Traffic	LDAP for IWA	Outgoing
445	TCP	ESXi Management IPaddress	Microsoft Active Directory Domain Controllers	N/A Egress Traffic	SMB for IWA	Outgoing
464	TCP/UDP	ESXi Management IPaddress	Microsoft Active Directory Domain Controllers	N/A Egress Traffic	Kerberos password change for IWA	Outgoing
514	TCP/UDP	ESXi Management IP addresses	Syslog Server	N/A Egress Traffic	Remote logging using syslog	Outgoing

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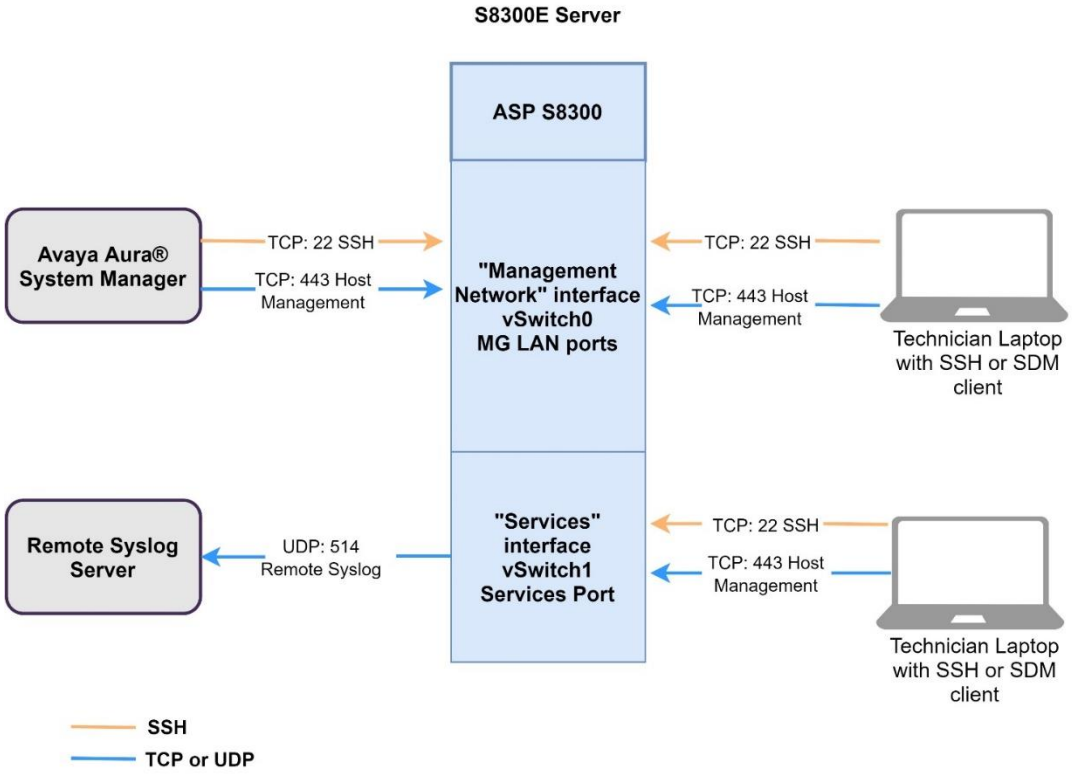
Port	Protocol	Source	Target	Default Port State	Purpose	Classification
636	TCP	ESXi iSCSI IP addresses	Microsoft Active Directory Domain Controllers	N/A Egress Traffic	LDAPS for IWA	Outgoing
902	TCP	ESXi Management IP addresses	ESXi Management IP addresses	N/A Egress Traffic	NFC/NBD-based Transfers for Content Library	Bidirectional
902	TCP	ESXi iSCSI IP addresses	Backup Servers	N/A Egress Traffic	NFC/NBD-based Transfers for Backups	Outgoing
3260	TCP	ESXi iSCSI IP addresses	iSCSI Storage Server	N/A Egress Traffic	Core storage iSCSI Client / Supports software iSCSI	Outgoing
3268,3269	TCP	ESXi Management IPaddresses	Microsoft Active Directory Domain Controllers	N/A Egress Traffic	LDAP GC interface for IWA	Outgoing
8000	TCP	ESXi vMotion IP addresses	ESXi vMotion IP addresses	N/A Egress Traffic	Required for virtual machine migration with vMotion. ESXi hosts listen on port 8000 for TCP connections from remote ESXi hosts for vMotion traffic.	Bidirectional
8182	TCP/UDP	ESXi Management IP addresses	ESXi Management IP addresses	N/A Egress Traffic	vSphere High Availability Communications	Bidirectional
8100,8200 8300	TCP	ESXi Management IP addresses	ESXi Management IP addresses	N/A Egress Traffic	vSphere Fault Tolerance Communications	Bidirectional
8301 8302	UDP	ESXi Management IPaddresses	ESXi Management IP addresses	N/A Egress Traffic	DVSSync ports are used for synchronizing states of distributed virtual ports between hosts that have VMware FT record/replay enabled. Only hosts that run primary or backup virtual machines must have these ports open. On hosts that are not using VMware FT these ports do not have to be open.	Bidirectional

9080	TCP	vCenter Server Management IP Address	ESXi Management IP addresses	N/A Egress Traffic	vSphere Replication Communications	Outgoing

5 Port Diagram

Note: Limited TCP/UDP ports have been listed in this diagram. For a complete list of ports, refer to tables in section 3 and 4 of this document



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