



# Protocol Ports Used by Avi Vantage for Management Communication

Avi Technical Reference (v18.1)

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## Overview

This article provides a list of various protocols and ports used by Avi Controller and Service Engines for:

- Management communication (used by Avi Controller and Service Engines)
- Network services (used by Avi Controller)
- Cloud orchestrators
- Container cluster nodes

## Ports Used for Management Communication

The Avi Controller and Avi Service Engines use the following ports for management. The firewall should allow traffic for these ports.

Traffic Source	Traffic Destination	Ports To Allow
Avi Controller	Avi Controller	TCP 22 (SSH) TCP 443 (HTTPS) TCP 8443 (HTTPS) TCP 5098 (SSH) <i>(if controller is a docker container, SSH is on port 5098)</i>
	External Entities	<i>See sections below the table.</i>
Avi Service Engine	Avi Controller	TCP 22 (SSH) TCP 8443 (HTTPS) UDP 123 (NTP) TCP 5098 (SSH) <i>(if controller is a docker container, SSH is on port 5098)</i>
	External Network Services	TCP 22 (SSH) TCP 80 (HTTP) <i>(optional)</i> TCP 443 (HTTPS) TCP 5054 (CLI Server) <i>(if using the optional <a href="#">CLI shell</a> for remote management access)</i> UDP 161 (SNMP agent listens to this port)

### Notes:

- You do not have to open any firewall port from Controller to SE.
- The source IP comes from the Avi Controller IP and not from the cluster IP, even if the cluster IP is configured.
- The secure channel on port 22 (or 5098 in container environments) is used for communication between Avi components for configuration sync, metrics and logs transfer, heartbeats and other management processes.
- 5098 port on the container side is not supported in the OpenStack mode.

For more details on the system portal 8443 and port 22 usage, refer to [Avi Controller to SE Communication](#).

## Ports Used by Controller for Network Services

The Avi Controller may send traffic to the following ports as part of network operation. The firewall also should allow traffic from the Avi Controller to these ports.

- TCP 25 (SMTP)
- TCP 49 (TACACS+)
- UDP 53 (DNS)
- UDP 123 (NTP)
- UDP 162 (SNMP traps)
- TCP or UDP 389 (LDAP)
- UDP 514 (syslog)
- TCP or UDP 636 (LDAPS)

## Protocols / Ports Used by Cloud Orchestrators

### OpenStack

Some or all of the following ports may be required:

- Keystone: TCP 5000, 35357
- Glance: TCP 9292
- Nova: TCP 8774
- Neutron: TCP 9696
- Heat (optional; used for autoscaling back-end members): TCP 8004

### VMware vCenter

- Avi Controller-to-ESXi hosts: port 443

### OpenShift Master

- Port 8443

### Kubernetes Master

- Port 8080 for unauthenticated masters

### Mesos or DC/OS Masters

- Port 5050 for masters
- Port 80 for unauthenticated Marathon services

## Ports Used by Container Cluster Nodes

### OpenShift

- Port 22

### Kubernetes Minions

- Port 22

### Mesos Nodes

- Port 22