



# Cisco CMX Network Protocols and Port Matrix

The following table lists the ports that Cisco CMX uses for communicating with wireless clients, controllers, Cisco Prime Infrastructure, and mail servers:

**Table 1: Cisco CMX Network Protocols and Port Matrix**

Source Device	Destination Device	Protocol	Destination Port	Description
Cisco CMX	NMSP on WLC	TCP	16113	-
Cisco CMX	SNMP on WLC	UDP	161/162	-
Cisco CMX	NTP Server	UDP	123	-
Cisco CMX	DNS Server	-	53	-
Cisco CMX	Mail Server	TCP	25	-
Cisco CMX	Internet	-	80/443	Used to pull down images of world map and validate addresses
Web	CMX HTTPS	TCP	443	Used to manage and administer Cisco CMX
Cisco CMX CLI via SSH	CMX Management	-	22	-
Web	CMX Management	-	1948	Used to upgrade Cisco CMX
HTTPS	Clients	TCP	443	-
HTTP	Clients	TCP	80	-

**Table 2: HA Port Information**

HA Ports	Description
7000, 7001, 9042	Cassandrs database
6378 through 6385	Redis
4242	High availability REST and web service. An HTTPS protocol using REST to communicate between the CMX HA
22	SSH port and used to synchronize files between servers

**Table 3: Cassandra Database**

Cassandra Database	Protocol
7000	TCP
7001	TCP
9042	SSL Communication