

Cisco CMX Alerts

Cisco CMX alerts can be of different level of severity. For critical alerts, there is an immediate impact on Cisco CMX and as a customer you should take necessary steps to resolve. Else, you will be risking losing data, for example, if a controller is down,you will not be able to retrieve data for any floor/access point that the controller manages.

As a customer, you can only resolve the obvious alerts such as controller not working. Most of the other alerts either indicate an undersized Cisco CMX or a critical failure in Cisco CMX. Both these cases would require intervention from Cisco CMX technical experts. You can use some of the **cmxos** and **cmxctl** commands to fix these critical failures. We recommend that you seek Cisco CMX technical help for troubleshooting.

Cisco CMX Alert	Description	Possible Solution
CPU_USAGE	Displayed when your CPU exceeds 80% on a Cisco CMX box.	Upgrade to a bigger Cisco CMX box.
MEMORY_USAGE	This alert is displayed when the memory usage is high.	Reduce the load on the Cisco CMX. Probably need a bigger CMX. Support should be able to figure that out.
SERVICE_STATUS	Displayed when a Cisco CMX service is crashed.	We recommend that you call the support.
DATA_PROCESSING_STATUS	Displayed when the Analytics service is slowing down.	Reduce load.
NMSP_CONNECTION_STATUS	Displayed when the Controller goes down for some reason.	Troubleshoot for a probable networking issue.
OUT_OF_MEMORY	Not used in Cisco CMX.	NA.
QUEUE_FULL	Not used in Cisco CMX.	NA
ARRAY_INDEX_OUT_OF_BOUND	Not used in Cisco CMX	NA

Cisco CMX Alert	Description	Possible Solution
BEACON_STATUS	Not supported	NA
BEACON_MOVEMENT	Not supported	NA
DISK_USAGE	Displayed when the Hard drive is getting full.	Run the cmx cleanup tool or remove unnecessary load from the hard drive.
AWIPS_LICENSE	Not used in Cisco CMX	NA
NMSP_MSG_RATE_EXCEEDED	Displayed when the system is getting too many NMSP messages for its box type.	We recommend that you either get a bigger box or clear unwanted clients by removing a controller or a map.
LOCATION_OVERLOADED	Critical alert that is not expected to happen.	NA
EVAL_LICENSE_EXPIRY	Displayed after the built in license expired after 120 days.	We recommend that you buy and activate a new Cisco CMX license.
AP_CONTROLLER_FETCH_STATUS	Displayed if SNMP information from the controller cannot be fetched.	Provide Cisco CMX with valid SNMP credentials.
SSID_CONTROLLER_FETCH_STATUS	Same as AP Controller.	NA
MAP_IMPORT_ERROR	Displayed if maps are not imported successfully during the import process from Cisco Prime Infrastructure.	We recommend that you contact support to re-import maps from Cisco Prime Infrastructure.
ANALYTICS_MISMATCH	Displayed if Analytics sanity test is failed.	We recommend that you call the Cisco support.
HETERARCHY_SIZE_LIMIT_EXCEEDED	Displayed if maps/aps/zones numbers exceed their limit for the corresponding Cisco CMX service type.	This might affect Cisco CMX performance. We recommend that you either reduce the number of elements or move them to a larger Cisco CMX box.

Cisco CMX Alert	Description	Possible Solution
mem_usage	Displayed once the memory usage is above 80%. This is a critical error.	Consider upgrading hardware or VM specs.
SERVER_STATUS	Displayed after the High Availability is successfully disabled. The Primary server is no longer syncing with secondary server.	This is an informational alert, and no action required.
SERVER_STATUS	Displayed when attempting to failback from secondary server to primary server: 192.168.99.110.	This is an informational alert, and no action required.
UNIQUE_DEVICE_EXCEEDED	Two alerts will be generated on Cisco CMX. First warning alert is generated when the number of unique devices seen in a particular day reaches 90% of allowed limit for that Cisco CMX. The second critical alert is generated when the number of unique devices seen in that day exceeds the allowed limit for that Cisco CMX.	This alert indicates that Cisco CMX is having heavy load than allowed in a day and this could lead to performance issue on Cisco CMX. One of the possible solution will be to lower the traffic using filtering parameters such as **Disable Probing Clients** or split the traffic among multiple Cisco CMX.

Monit Email	Customer Action
1m Load avg. above 3	No action required.
1m Load avg. recovered	No action required.
5m Load avg. above 3	No action required.
5m Load avg. recovered	No action required.
15m Load avg. above 2	No action required.
15m Load avg. recovered	No action required.

Monit Email	Customer Action
Adminui service is down	Run the **cmxos adminui start** command.
Agent service is down	Run the **cmxctl agent start** command.
Analytics service is down	Run the **cmxctl analytics start** command.
Analytics service recovered	No action required.
cache_6378 service is down	Run the **cmxctl cache_6378 start** command.
cache_6378 service recovered	No action required.
cache_6379 service is down	Run the **cmxctl cache_6379 start** command.
cache_6379 service recovered	No action required.
cache_6380 service is down	Run the **cmxctl cache_6380 start** command.
cache_6380 service recovered	No action required.
cache_6381 service is down	Run the **cmxctl cache_6381 start** command.
cache_6381 service recovered	No action required.
cache_6382 service is down	Run the **cmxctl cache_6382 start** command.
cache_6382 service recovered	No action required.
cache_6383 service is down	Run the **cmxctl cache_6383 start** command.
cache_6383 service recovered	No action required.
cache_6385 service is down	Run the **cmxctl cache_6385 start** command.
cache_6385 service recovered	No action required.
cassandra service is down	Run the **cmxctl cassandra start** command.
cassandra service recovered	No action required.
Collectd service is down	No action required.
Collectd service is up	No action required.
Confd service is down	Run the **cmxctl confd start** command.
Confd service is up	No action required.
configuration service is down	Run the **cmxctl configuration start** command.
configuration service recovered	No action required.
Consul Service is down	Run the **cmxctl consul start** command.
Disk usage is above 80%	Remove files. Add storage.

Monit Email	Customer Action
Disk usage recovered	No action required.
DNSMasq service is down	No action required.
File Descriptors are above bounds	No action required.
File Descriptors recovered	No action required.
File system	
HAProxy service is down	Run the **cmxctl haproxy start** command.
HAProxy service is up	No action required.
hyperlocation service is down	Run the **cmxctl hyperlocation start** command.
hyperlocation service recovered	No action required.
Influxdb service is down	Run the **cmxctl influxdb start** command.
Influxdb service is up	No action required.
Inode usage is above 80%	Remove files.
Inode usage recovered	No action required.
Load	Suggested actions to lessen the load: • Create fewer notifications • Run fewer reports • Remove some WLCs • Upgrade system.
location service is down	Run the **cmxctl location start** command.
location service recovered	No action required.
matlabengine service is down	Run the **cmxctl matlabengine start** command.
matlabengine service recovered	No action required.
Memory usage is above 80%	Restart the system during a quiet period. Upgrade system.
Memory usage recovered	No action required.
Monit instance changed	None. Informational.
nmsplb service is down	Run the **cmxctl nmsplb start** command.
nmsplb service recovered	No action required.

Monit Email	Customer Action
Port 5432 is not responding	Run the **cmxctl database stop** and **cmxctl database start** command.
Port 5432 is responding	No action required.
Port 6378 is not responding	Run the **cmxctl cache_6378 stop** and **cmxctl cache_6378 start** command.
Port 6378 responding	No action required.
Port 6379 is not responding	Run the **cmxctl cache_6379 stop** and **cmxctl cache_6379 start** command.
Port 6379 responding	No action required.
Port 6380 is not responding	Run the **cmxctl cache_6380 stop** and **cmxctl cache_6380 start** command.
Port 6380 responding	No action required.
Port 6381 is not responding	Run the **cmxctl cache_6381 stop** and **cmxctl cache_6381 start** command.
Port 6381 responding	No action required.
Port 6382 is not responding	Run the **cmxctl cache_6382 stop** and **cmxctl cache_6382 start** command.
Port 6382 responding	No action required.
Port 6383 is not responding	Run the **cmxctl cache_6383 stop** and **cmxctl cache_6383 start** command.
Port 6383 responding	No action required.
Port 6385 is not responding	Run the **cmxctl cache_6385 stop** and **cmxctl cache_6385 start** command.
Port 6385 responding	No action required.
Port 6511 is not responding	Run the **cmxctl hyperlocation stop** and **cmxctl hyperlocation start** command.
Port 6512 responding	No action required.
Port 6531 is not responding	Run the **cmxctl location stop** and **cmxctl location start** command.
Port 6531 responding	No action required.
Port 6532 is not responding	Run the **cmxctl location stop** and **cmxctl location start** command.

Monit Email	Customer Action
Port 6532 responding	No action required.
Port 6541 is not responding	Run the **cmxctl analytics stop** and **cmxctl analytics start** command.
Port 6541 responding	No action required.
Port 6542 is not responding	Run the **cmxctl analytics stop** and **cmxctl analytics start** command.
Port 6542 responding	No action required.
Port 6551 is not responding	Run the **cmxctl configuration stop** and **cmxctl configuration start** command.
Port 6551 responding	No action required.
Port 6552 is not responding	Run the **cmxctl configuration stop** and **cmxctl configuration start** command.
Port 6552 responding	No action required.
Port 6571 is not responding	Run the **cmxctl nmsplb stop** and **cmxctl nmsplb start** command.
Port 6571 responding	No action required.
Port 6572 is not responding	Run the **cmxctl nmsplb stop** and **cmxctl nmsplb start** command.
Port 6572 responding	No action required.
Port 6581 is not responding	Run the **cmxctl matlabengine stop** and **cmxctl matlabengine start** command.
Port 6581 is responding	No action required.
Port 6582 is not responding	Run the **cmxctl matlabengine stop** and **cmxctl matlabengine start** command.
Port 6582 is responding	No action required.
Port 9042 is not responding	Run the **cmxctl cassandra stop** and **cmxctl cassandra start** command.
Port 9042 is responding	No action required.
postgres service is down	Run the **cmxctl database start** command.
postgres service is up	No action required.
qlesspy service is down	Run the **cmxctl qlesspy start** command.
qlesspy service recovered	No action required.

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Socket 5432 is not responding	Run the **cmxctl database stop** and **cmxctl database start** command.
Socket 5432 is responding	No action required.
Swap usage is above 80%	Increase swap space or reduce memory usage.
Swap usage recovered	No action required.
SYS CPU usage is above 60%	No action required.
SYS CPU usage recovered	No action required.
The analytics service is not reporting health	Run the **cmxctl analytics stop** and **cmxctl analytics start** command.
The analytics service reporting health	No action required.
The configuration service is not reporting health	Run the **cmxctl configuration stop** and **cmxctl configuration start** command.
The configuration service reporting health	No action required.
The hyperlocation service is not reporting health	Run the **cmxctl hyperlocation stop** and **cmxctl hyperlocation start** command.
The hyperlocation service reporting health	No action required.
The location service is not reporting health	Run the **cmxctl location stop** and **cmxctl location start** command.
The location service reporting health	No action required.
The matlabengine service is not reporting health	Run the **cmxctl matlabengine stop** and **cmxctl matlabengine start** command.
The matlabengine service reporting health	No action required.
The nmsplb service is not reporting health	Run the **cmxctl nmsplb stop** and **cmxctl nmsplb start** command.
The nmsplb service reporting health	No action required.
USR CPU usage is above 80%	No action required.
USR CPU usage recovered	No action required.
WAIT CPU usage is above 60%	No action required.
WAIT CPU usage recovered	No action required.
Memory usage is above 80%	Restart the system during a quiet period. Upgrade system.

Monit Email	Customer Action
Memory usage recovered	No action required.
Swap usage is above 80%	Increase swap space or reduce memory usage.
File system	
Disk usage is above 80%	Remove files. Add storage.
Disk usage recovered	No action required.
Inode usage is above 80%	Remove files.
Inode usage recovered	No action required.
File Descriptors are above bounds	Restart the system.
File Descriptors recovered	No action required.
ocation service is down	Run the **cmxctl location start** command.
location service recovered	No action required.
Port 6531 is not responding	Run the **cmxctl location stop** and **cmxctl location start** command.
Port 6531 responding	No action required.
Port 6532 is not responding	Run the **cmxctl location stop** and **cmxctl location start** command.
Port 6532 responding	No action required.
The location service is not reporting health	Run the **cmxctl location stop** and **cmxctl location start** command.
The location service reporting health	No action required.
matlabengine service is down	Run the **cmxctl matlabengine start** command.
matlabengine service recovered	No action required.
Port 6581 is not responding	Run the **cmxctl matlabengine stop** and **cmxctl matlabengine start** command.
Port 6581 responding	No action required.
Port 6582 is not responding	Run the **cmxctl matlabengine stop** and **cmxctl matlabengine start** command.
Port 6582 responding	No action required.

Monit Email	Customer Action
The matlabengine service is not reporting health	Run the **cmxctl matlabengine stop** and **cmxctl matlabengine start** command.
The matlabengine service reporting health	No action required.
nmsplb service is down	Run the **cmxctl nmsplb start** command.
nmsplb service recovered	No action required.
Port 6571 is not responding	Run the **cmxctl nmsplb stop** and **cmxctl nmsplb start** command.
Port 6572 responding	No action required.
The nmsplb service is not reporting health	Run the **cmxctl nmsplb stop** and **cmxctl nmsplb start** command.
The nmsplb service reporting health	No action required.
postgres service is down	Run the **cmxctl database start** command.
postgres service is up	No action required.
Socket 5432 is not responding	Run the **cmxctl database stop** and **cmxctl database start** command.
Socket 5432 is responding	No action required.
Port 5432 is not responding	Run the **cmxctl database stop** and **cmxctl database start** command.
Port 5432 is responding	No action required.
qlesspy service is down	Run the **cmxctl qlesspy start** command.
qlesspy service recovered	No action required.
cache_6378 service is down	Run the **cmxctl cache_6378 start** command.
cache_6378 service recovered	No action required.
Port 6378 is not responding	Run the **cmxctl cache_6378 stop** and **cmxctl cache_6378 start** command.
Port 6378 responding	No action required.
cache_6379 service is down	Run the **cmxctl cache_6379 start** command.
cache_6379 service recovered	No action required.
Port 6379 is not responding	Run the **cmxctl cache_6379 stop** and **cmxctl cache_6379 start** command.
Port 6379 responding	No action required.

Monit Email	Customer Action
cache_6380 service is down	Run the **cmxctl cache_6380 start** command.
cache_6380 service recovered	No action required.
Port 6380 is not responding	Run the **cmxctl cache_6380 stop** and **cmxctl cache_6380 start** command.
Port 6380 responding	No action required.
cache_6381 service is down	Run the **cmxctl cache_6381 start** command.
cache_6381 service recovered	No action required.
Port 6381 is not responding	Run the **cmxctl cache_6381 stop** and **cmxctl cache_6381 start** command.
Port 6381 responding	No action required.
cache_6382 service is down	Run the **cmxctl cache_6382 start** command.
cache_6382 service recovered	No action required.
Port 6382 is not responding	Run the **cmxctl cache_6382 stop** and **cmxctl cache_6382 start** command.
Port 6382 responding	No action required.
cache_6383 service is down	Run the **cmxctl cache_6383 start** command.
cache_6383 service recovered	No action required.
Port 6383 is not responding	Run the **cmxctl cache_6383 stop** and **cmxctl cache_6383 start** command.
Port 6383 responding	No action required.
cache_6385 service is down	Run the **cmxctl cache_6385 start** command.
cache_6385 service recovered	No action required.
Port 6385 is not responding	Run the **cmxctl cache_6385 stop** and **cmxctl cache_6385 start** command.
Port 6385 responding	No action required.

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