



Cisco CMX High Availability Commands

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cmxha info

To view Cisco CMX high availability (HA) information, such as version, IP addresses, and so on, use the **cmxha info** command.

cmxha info

Syntax Description	This command has no arguments or keywords.				
Command Default	None				
Command Modes	CMX admin user				
Command History	<table> <tr> <th>Release</th><th>Modification</th></tr> <tr> <td>Cisco CMX Release 10.3</td><td>This command was introduced.</td></tr> </table>	Release	Modification	Cisco CMX Release 10.3	This command was introduced.
Release	Modification				
Cisco CMX Release 10.3	This command was introduced.				
Usage Guidelines	This command should be run at the cmxadmin level.				

Examples

The following example shows how to print Cisco CMX HA information:

```
[cmxadmin@cmx]# cmxha info
Version                : 10.3.0-599
Current Server Time    : Fri Mar 24 02:31:31 2017
State                  : Primary Not Configured
State Description      : Primary has not been configured with a secondary
State Last Updated Time : Mon Nov 7 13:42:39 2016
Keepalived State       : Stopped
Keepalived Updated Time : Mon Nov 7 13:42:39 2016
Role                   : PRIMARY
Primary IP Address     : 192.0.2.1
Secondary IP Address   :
Use Virtual IP Address : True
Virtual IP Address     :
Failover Type          : Automatic Failover
Email Notify Address   :
----- Primary WLC Auth -----
MAC Address           :
SHA1 Key              :
SHA2 Key              :
----- Secondary WLC Auth -----
MAC Address           :
SHA1 Key              :
SHA2 Key              :
----- System Information -----
Total Memory          : 25.0 GB
Total Disk            : 157.0 GB
Number of CPUs        : 8
----- Version Information -----
Redis Version         : 2.8.6
Postgres Version      : 9.3.11
Cassandra Version     : 2.1.13
```

cmxha config

To configure Cisco CMX high availability (HA), use the **cmxha config** command.

cmxha config {**disable** | **enable** | **modify** | {*email failover*} | **test** | {*email*}}

Syntax Description	disable	Disables CMX HA configuration.
	enable	Enables CMX HA configuration.
	modify	Modifies CMX HA configuration.
	<i>email</i>	Enter the email address.
	<i>failover</i>	Enter the failover type as either Manual or Automatic .
	test	Tests the CMX HA configuration.
	<i>email</i>	Sends a test email with current email settings.
Command Default	None.	
Command Modes	CMX admin user	
Command History	Release	Modification
	Cisco CMX Release 10.3	This command was introduced.
Usage Guidelines	This command should be run at the cmxadmin level.	

Examples

The following example shows how to enable CMX HA:

```
[cmxadmin@cmx]# cmxha config enable
Are you sure you wish to enable high availability? [y/N]: y
Please enter secondary IP address: 192.0.2.1
Please enter the cmxadmin user password for secondary:
Do you wish to use a virtual IP address? [y/N]: y
Please enter the virtual IP address: 192.0.2.2
Please enter failover type [manual|automatic]: automatic
Please enter an email address(es) for notifications (Use space, comma or semicolon to
separate): email@cisco.com
Attempting to configure high availability with server: 192.0.2.1
Configuring primary server for HA
Configuring secondary server for HA
.....
Synchronizing Postgres data from primary to secondary
.....
Synchronizing Cassandra data from primary to secondary
.....
Syncing primary files to secondary
Successfully started high availability. Primary is syncing with secondary.
```

cmxha secondary

To convert the system to a secondary server and display Cisco CMX high availability (HA) information, use the **cmxha secondary** command.

cmxha secondary
{ **convert** | **info** }

Syntax Description	convert Converts the system to a secondary server.
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info	Displays CMX HA information.
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Command Default	None
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Command Modes	CMX admin user
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Command History	Release	Modification
	Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines	This command should be run at the cmxadmin level. This command will retrieve the current information from the secondary server. If the current server is the primary server, this command will query the remote secondary server. If the current server is the secondary server, the local information is displayed. Use this command to display the server status in order to understand the remote status of the server.
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Examples

The following example shows how to view secondary server information:

```
[cmxadmin@cmx]# cmxha secondary info
Version                : 10.3.0-600
Current Server Time    : Sun Apr  2 23:21:07 2017
State                  : Secondary Not Configured
State Description      : Secondary has not been configured with a primary
State Last Updated Time : Thu Mar 30 21:58:25 2017
Keepalived State       : Stopped
Keepalived Updated Time : Thu Mar 30 21:58:25 2017
Role                   : SECONDARY
Primary IP Address     :
Secondary IP Address   : 192.0.2.1
Use Virtual IP Address : True
Virtual IP Address     :
Failover Type          : Automatic Failover
Email Notify Address   :
----- Primary WLC Auth -----
MAC Address           :
SHA1 Key              :
SHA2 Key              :
----- Secondary WLC Auth -----
MAC Address           :
SHA1 Key              :
SHA2 Key              :
----- System Information -----
Total Memory          : 25.0 GB
```

```
Total Disk          : 156.0 GB
Number of CPUs       : 8
----- Version Information -----
Redis Version        : 2.8.6
Postgres Version     : 9.3.11
Cassandra Version    : 2.1.13
```

cmxha events

To view Cisco CMX high availability (HA) events, use the **cmxha events** command.

cmxha events

Syntax Description	This command has no arguments or keywords.				
Command Default	None				
Command Modes	CMX admin user				
Command History	<table> <tr> <th>Release</th><th>Modification</th></tr> <tr> <td>Cisco CMX Release 10.3</td><td>This command was introduced.</td></tr> </table>	Release	Modification	Cisco CMX Release 10.3	This command was introduced.
Release	Modification				
Cisco CMX Release 10.3	This command was introduced.				
Usage Guidelines	This command should be run at the cmxadmin level.				

Example

The following example shows how to view CMX HA events:

```
[cmxadmin@cmx]# cmxha events
```

Time	State	Description
Fri Dec 2 01:15:02 2016	Primary Configure Invoked	Attempting to initialize primary server
Fri Dec 2 01:15:17 2016	Primary Syncing	Primary Syncing
Wed Dec 14 03:19:53 2016	Primary Initialize	Attempting to initialize primary server
Wed Dec 14 03:24:56 2016	Primary Syncing	Primary Syncing
Wed Dec 14 03:34:38 2016	Primary Active	Primary is actively synchronizing with secondary server
Wed Dec 14 03:34:38 2016	Primary Active	Successfully enabled high availability. Primary is sync
Wed Dec 14 04:00:02 2016	Primary Active	Service check failed for master. Attempt to restart ser
Wed Dec 14 04:02:01 2016	Primary Active	Service check succeeded for master after agent restart
Tue Dec 20 04:50:12 2016	Primary Disable Invoked	Attempting to disable high availability
Tue Dec 20 04:52:13 2016	Primary Disable Invoked	Successfully disabled high availability.

cmxha failover

To fail over to the secondary server, use the **cmxha failover** command.

cmxha failover

Syntax Description	This command has no arguments or keywords.	
Command Default	None	
Command Modes	CMX admin user	
Command History	Release	Modification
	Cisco CMX Release 10.3	This command was introduced.
Usage Guidelines	The command prompts for confirmation and then initiates the failover to the secondary server.	

Example

The following example shows how to initiate the failover to the secondary server:

```
[cmxadmin@cmx]# cmxha failover
Are you sure you wish to failover to the secondary? [y/N]: y
Starting failover from primary to secondary server: 192.0.2.250
Syncing primary files to secondary
Configuring secondary server for Failover
Configuring primary server for Failover
Failover to secondary server has completed successfully
```

cmxha failback

To fail back to the primary server, use the **cmxha failback** command.

cmxha failback

Syntax Description	This command has no arguments or keywords.				
Command Default	None.				
Command Modes	CMX admin user				
Command History	<table> <tr> <th>Release</th><th>Modification</th></tr> <tr> <td>Cisco CMX Release 10.3</td><td>This command was introduced.</td></tr> </table>	Release	Modification	Cisco CMX Release 10.3	This command was introduced.
Release	Modification				
Cisco CMX Release 10.3	This command was introduced.				
Usage Guidelines	The command prompts for confirmation and then initiates the failback to the primary server. We recommend that you run this command from the web UI. Note that this command requires a considerable amount of time for execution.				

Example

The following example shows how to initiate the failback to the primary server:

```
[cmxadmin@cmx]# cmxha failback
Are you sure you wish to failback to the primary? [y/N]: y
Starting to failback to primary server from secondary server: 192.0.2.250
Starting to synchronize data from secondary to primary server
.....
Completed synchronization of data from secondary to primary server
Starting to synchronize data from primary to secondary server
.....
Completed failback to primary server
```


cmxha primary

To convert the system to a primary server and display CMX high availability (HA) information, use the **cmxha primary** command.

cmxha primary
{ **convert** | **info** }

Syntax Description

convert Converts the system to a primary server.

info Displays the CMX HA information.

Command Default

None

Command Modes

CMX admin user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level. This command will retrieve the current information from the primary server. If the current server is a secondary server, this command will query the remote primary server. If the current server is the primary server, the local information is displayed. Use this command to display the server status in order to understand the remote status of the server.

Example

The following example shows how to convert the system to a primary server:

```
[cmxadmin@cmx]# cmxha primary convert
This command should be run when HA is disabled and not configured. Are you sure you wish
to convert the system to a primary? [y/N]: y
Starting all services. This may take a while..
Started all services
Successfully completed primary convert
```

cmxha diag

To collect Cisco CMX high availability (HA) diagnostic information, use the **cmxha diag** command.

cmxha diag collect

Syntax Description	collect Collects logs and diagnostic information from the primary and secondary servers.				
Command Default	None				
Command Modes	CMX admin user				
Command History	<table> <tr> <th>Release</th><th>Modification</th></tr> <tr> <td>Cisco CMX Release 10.3</td><td>This command was introduced.</td></tr> </table>	Release	Modification	Cisco CMX Release 10.3	This command was introduced.
Release	Modification				
Cisco CMX Release 10.3	This command was introduced.				
Usage Guidelines	This command should be run at the cmxadmin level.				

Example

The following example shows how to collect CMX HA diagnostic information:

```
[cmxadmin@cmx]# cmxha diag collect
Please enter a description for the diagnostic collection: collect
Collected local diagnostic files into file:
/opt/cmx/srv/cmx-ha-diags/cmx_ha_diag_192.0.2.1_2017-04-02.tar.gz
[cmxadmin@CMX-LowEnd-2 ~]$
```

cmxha filesync

To synchronize files between the primary server and the secondary server, use the **cmxha filesync** command.

cmxha filesync replicate

Syntax Description	replicate Replicates files to the secondary server.				
Command Default	None				
Command Modes	CMX admin user				
Command History	<table><tr><th>Release</th><th>Modification</th></tr><tr><td>Cisco CMX Release 10.3</td><td>This command was introduced.</td></tr></table>	Release	Modification	Cisco CMX Release 10.3	This command was introduced.
Release	Modification				
Cisco CMX Release 10.3	This command was introduced.				
Usage Guidelines	This command should be run at the cmxadmin level. We recommend that you run this command with Cisco TAC assistance.				

cmxha init

To configure high availability (HA) at startup, use the **cmxha init** command.

cmxha init

Syntax Description	This command has no arguments or keywords.	
Command Default	None	
Command Modes	CMX admin user	
Command History	Release	Modification
	Cisco CMX Release 10.3	This command was introduced.
Usage Guidelines	This command should be run at the cmxadmin level. We recommend that you run this command with Cisco TAC assistance.	

cmxha logging

To change or view the logging level of Cisco CMX high availability (HA), use the **cmxha logging** command.

cmxha logging {**config** { **debug** | **info** } | **status** }

Syntax Description

config Changes the logging level of CMX HA.

debug Sets the logging level to debug.

info Sets the logging level to info.

status Shows the current logging level.

Command Default

None

Command Modes

CMX admin user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level. We recommend that you run this command with Cisco TAC assistance.

Examples

The following example shows how to view the CMX HA logging level:

```
[cmxadmin@cmx]# cmxha logging config info
```

Completed changing logging level to info

cmxha splitbrain

To manage the Cisco CMX high availability (HA) split-brain scenario, use the **cmxha splitbrain** command.

cmxha splitbrain

{ **info** | **use-primary** | **use-secondary** }

Syntax Description	info	Displays information about the CMX HA split-brain scenario.
	use-primary	Uses the primary server in the split-brain scenario.
	use-secondary	Uses the secondary server in the split-brain scenario.
Command Default	None	
Command Modes	CMX admin user	
Command History	Release	Modification
	Cisco CMX Release 10.3	This command was introduced.
Usage Guidelines	This command should be run at the cmxadmin level.	

Examples

The following example shows how to view CMX HA split-brain scenario information:

```
[cmxadmin@cmx]# cmxha splitbrain info
System is not in split-brain state currently
```

cmxha web

To enable or disable the high availability (HA) web services, use the **cmxha web** command.

cmxha web
{ **disable** | **enable** | **status** }

Syntax Description

disable	Disables the HA web service.
enable	Enables the HA web service.
status	Shows the status of the HA web services.

Command Default

None

Command Modes

CMX admin user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level. We recommend that you run this command with Cisco TAC assistance.

Examples

The following example shows how to view web service status:

```
cmxadmin@cmx]# cmxha web status
Web service enabled      : True
Web service running      : True
```

