

## Monitoring, Managing, and Rebuilding HA Clusters

<https://campus.barracuda.com/doc/49054344/>

Manage configuration updates and monitoring for your HA clusters. Configuration changes on the primary firewall are transferred instantly to the secondary firewall. The sync status can be viewed from Barracuda NG Admin. If the primary firewall fails, configuration changes must be made on the secondary firewall. After the primary firewall is re-established, synchronization must be started manually.

### In this article:

#### Check Virtual Server HA Status

Check the server status on both HA firewalls to verify that the virtual server is running on the primary firewall.

1. On the primary firewall:
  - Go to **CONTROL > Server**.
  - In the **Server Status** table, verify that the **Status** column displays **primary** and the **Status HA Partner** column displays **standby**. The virtual server status color must be green.

Server Status			
Server	Status	Status HA Partner	IP Addresses
<ul style="list-style-type: none"> <li>■ VIRTCTRL</li> <li>■ Status</li> <li>■ HA</li> <li>■ IP</li> <li>■ 1</li> <li>■ 2</li> <li>■ 3</li> <li>■ 4</li> <li>■ 5</li> <li>■ 6</li> </ul>	primary	standby	10.0.15.3,10.20.0.80,172.16.1.254,19...
	primary		
	standby		

Block Server Start Server Stop Server Restart Server

2. On the secondary firewall:
  - Go to **CONTROL > Server**.
  - In the **Server Status** table, verify that the **Status** column displays **standby** and the **Status HA Partner** column displays **primary**.

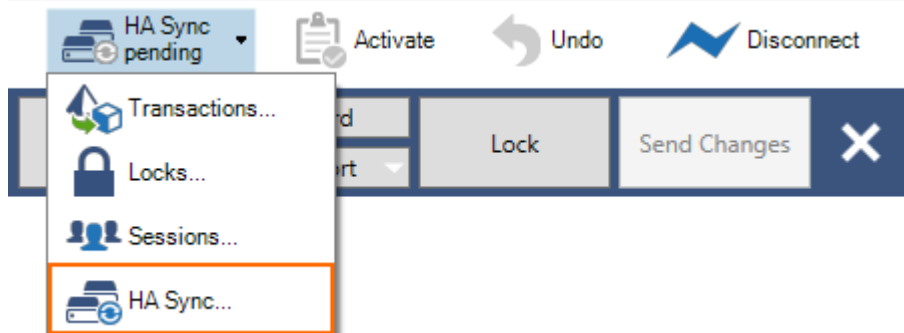
Server Status			
Server	Status	Status HA Partner	IP Addresses
<ul style="list-style-type: none"> <li>■ VIRTCTRL</li> <li>  <ul style="list-style-type: none"> <li>■ Status</li> <li>■ HA</li> <li>■ IP</li> </ul> </li> </ul>	standby	primary	10.0.15.3(!),10.20.0.80(!),172.16.1.25...
	standby		
	primary		
			10.0.15.3(!)
			10.20.0.80(!)
			172.16.1.254(!)
			194.93.0.80(!)
			62.99.0.80(!)
			62.99.0.81(!)

Block Server Start Server Stop Server Restart Server

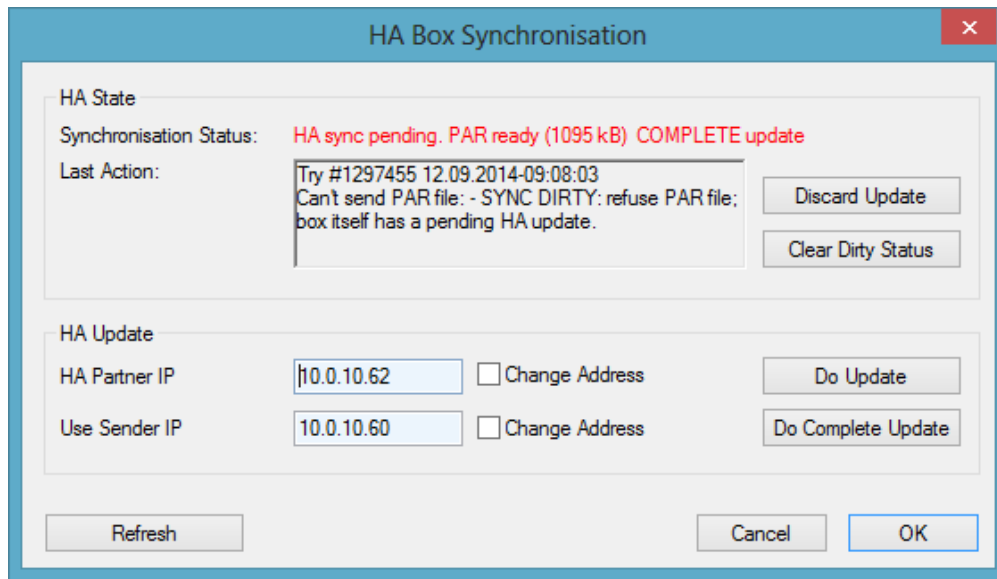
If the virtual server is running on the secondary firewall, you must initiate a manual HA failover. For more information, see [How to Perform a Manual High Availability Failover](#).

## HA Sync Status Setup

1. Go to **CONFIGURATION**.
2. Expand the **State Info** drop-down list in the upper right-hand corner and click **HA Sync**.



3. In the **HA Box Synchronization** window, you have the option to trigger the following tasks:
  - **Do Update** - Performs an incremental update.
  - **Do Complete Update** - Performs a complete update.
  - **Discard Update** - Discards the changes. This is needed when the two HA partners are in an inconsistent state.
  - **Refresh** - Refreshes the window to see actual changes (completion of update).

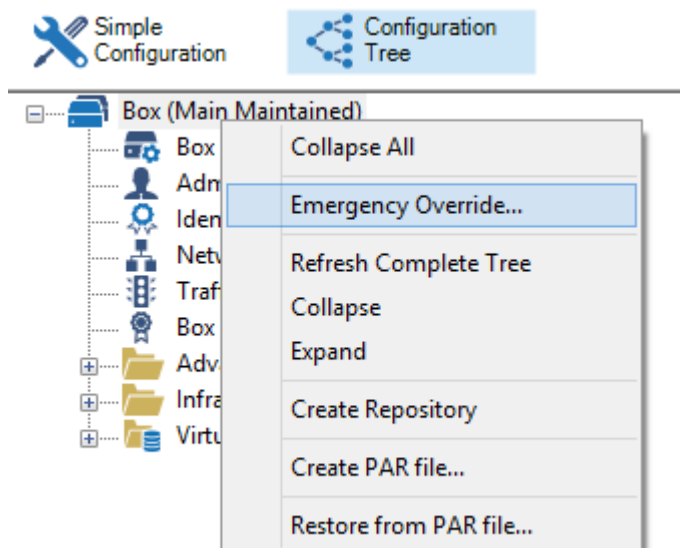


This function is deactivated if the HA system is managed by a NG Control Center. You can only trigger HA box synchronization via the **Configuration Update** page on the NG Control Center. For more information, see [CC Configuration Updates](#).

## Emergency Override

If the primary firewall fails, configuration changes must be made on the secondary firewall using the Emergency Override mode.

1. Log into the secondary firewall.
2. From the **Configuration Tree**, right-click **Box** (Backup) and select **Emergency Override**.



- When prompted, click **Yes** to enable the Emergency Override mode. When the Emergency Override mode is active, the box icon is highlighted in yellow.

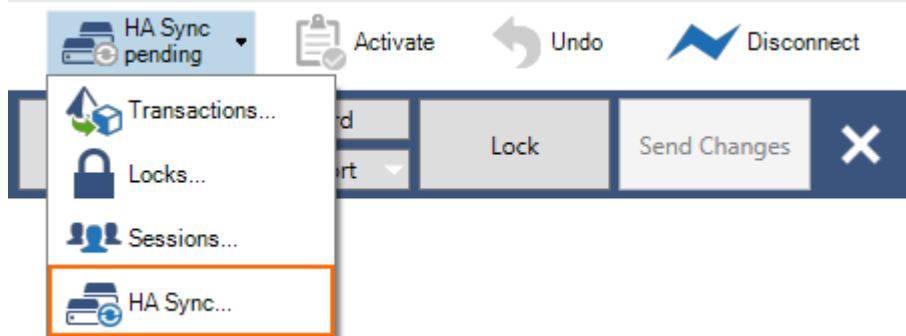
The Emergency Override mode is activated only for the current session. It must be reactivated for every new session.

- Lock and edit your configurations.
- Click **Send Changes** and **Activate**.

## Manually Synchronize a Stand-alone HA Pair

After the connection to the primary firewall is re-established, synchronization must be re-started manually. The following steps assume that services are still active on the secondary firewall.

- On the primary firewall, go to **CONFIGURATION**.
- From the service bar, expand the **State Info** icon and click **HA Sync**.



- Select the **Clear Dirty Status** button.

A restart of the Control Service or the CC-Conf Service can cause HA synchronization disruption. The synchronization process stops with the following error message:  
*HA sync pending PAR ready (13223 kb) COMPLETE update; Can't send PAR file: - SYNC DIRTY: refuse PAR file: box itself has a pending HA update.*

In case of disruption, the .par file used in the synchronization process is not deleted from the file system in the final step. This disturbs the following synchronization process. Use the button **Clear Dirty Status** in the HA Sync window to restart HA sync.

- Open the **Configuration Tree** on the secondary firewall and click **HA Sync**.
- Enter the IP addresses of the HA partners into the IP address fields of the **HA Box Synchronization** window.
- Click **Do Update** to transfer the configuration from the secondary firewall to the primary firewall.
- Enter the IP address of the primary firewall into the **HA Partner IP** field.
- Enter the IP address of the secondary firewall into the **Sender IP to use** field.
- Select the **Change Address** check boxes to the right of both fields.
- Click **Do Complete Update**.
- Block services on the secondary firewall so that the primary firewall can regain normal operation status.

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## Manually Synchronize a Stand-alone HA Pair in the NG Control Center

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Only configuration changes on the primary firewall are transferred instantly to the secondary firewall. In Emergency Override mode, manually synchronize configurations from the secondary firewall to the primary firewall. (The following steps assume that services are still active on the secondary firewall.)

1. On the primary firewall, select the **Clear Dirty Status** button.
2. Open the **Configuration Tree** on the NG Control Center and click **HA Sync**.
3. Enter the IP addresses of the HA partners into the IP address fields of the **HA Box Synchronization** window.
4. Click **Do Update** to transfer the configuration from the secondary firewall to the primary firewall.
5. Enter the IP address of the primary firewall into the **HA Partner IP** field.
6. Enter the IP address of the secondary firewall into the **Use Sender IP** field.
7. Select the **Change Address** check boxes to the right of both fields.
8. Click **Do Complete Update**.
9. Block services on the secondary firewall so that the primary firewall can regain normal operation status.

## Configure IP Address and Service Monitoring

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To enable handling of failure conditions and to guarantee a quick takeover of services when a box or networking component becomes unavailable, configure the monitoring of IP addresses and services on the Virtual Server layer.

For more information, see [Virtual Server Monitoring](#) .

## Figures

1. ha\_manual\_failover\_01.png
2. ha\_manual\_failover\_02.png
3. HA\_monitoring\_01.png
4. ha\_sync.png
5. em\_ovr.png
6. HA\_monitoring\_01.png

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