

How to Perform a Manual High Availability Failover

<https://campus.barracuda.com/doc/73719424/>

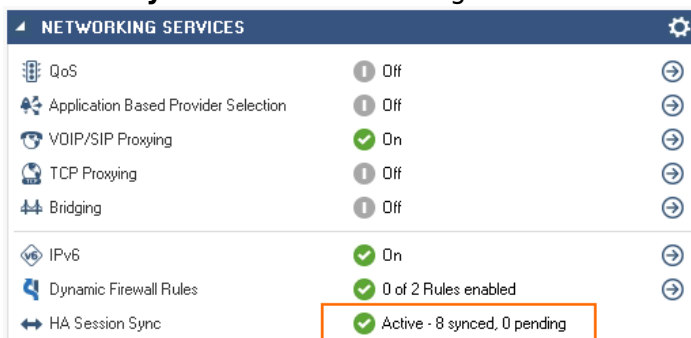
In an HA setup, the primary CloudGen Firewall stays active until a serious problem occurs. If virtual servers and services must be shut down (for example, for system maintenance), you can do a manual failover to transfer all virtual servers to the secondary (backup) unit. Block the virtual server on the primary unit to shut down the Control service. The Control service will send a signal to the secondary unit that tells it to start its virtual server. Then, stop the virtual server on the primary unit to enable the Control service to restart it automatically if the secondary unit goes down. This mechanism works identically for an HA pair that is managed by a Barracuda Firewall Control Center and a stand-alone HA pair.

Perform a High Availability Failover when the Primary Unit is Active

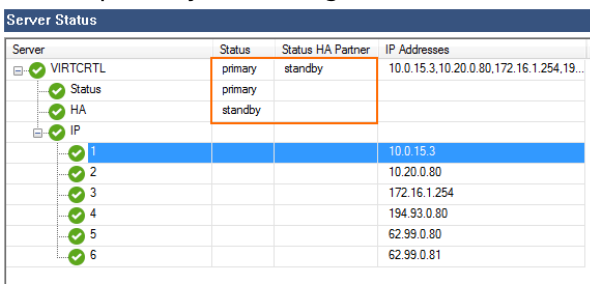
Block the virtual server on the primary unit to shut down the Control service and initiate the failover. After the failover, start the control service for the primary firewall to be able to take over the virtual server in case of failure.

Before You Begin

- Go to **DASHBOARD > Firewall** and verify that in the **Networking Services** element the **HA Session Sync** is **active** and in a green state.



- On the primary firewall, go to the **Control > Server** page and verify the **Status** is **primary**.



Server	Status	Status HA Partner	IP Addresses
VIRTCTRL	primary	standby	10.0.15.3, 10.20.0.80, 172.16.1.254, 19...
Status	primary	standby	
HA	primary	standby	
IP			
1			10.0.15.3
2			10.20.0.80
3			172.16.1.254
4			194.93.0.80
5			62.99.0.80
6			62.99.0.81

- On the secondary firewall, go to the **Control > Server** page and verify the **Status** is **standby**. If the **Status** is blocked, click **Stop Server**.

Server Status			
Server	Status	Status HA Partner	IP Addresses
<ul style="list-style-type: none"> ✔ VIRTCTRL ✔ Status ✔ HA ✔ IP <ul style="list-style-type: none"> ✔ 1 ✔ 2 ✔ 3 ✔ 4 ✔ 5 ✔ 6 	standby	primary	10.0.15.3(!),10.20.0.80(!),172.16.1.254...
	standby		
	primary		

Block Server Start Server Stop Server Restart Server

Step 1. Block the Virtual Server on the Primary Unit

1. Log into the primary unit.
2. Go to the **Control > Server** page.
3. In the **Server Status** section, select the virtual server and click **Block Server**.

Server Status			
Server	Status	Status HA Partner	IP Addresses
<ul style="list-style-type: none"> ✔ S1 ✔ Status ✔ HA ✔ IP <ul style="list-style-type: none"> ✔ 1 ✔ 2 ✔ 3 	primary	standby	10.0.10.61,172.16.0.221,62.99.0...
	primary		
	standby		

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On the primary firewall, the virtual server **Status** column shows **block**. On the secondary firewall, the virtual server **Status** shows **secondary**.

- The virtual server is now running on the secondary firewall.
- The primary firewall is blocked and cannot take over the virtual server in case the secondary firewall fails.

Primary Firewall

Server Status			
Server	Status	Status HA Partner	IP Addresses
<ul style="list-style-type: none"> ⚠ S1 ⚠ Status ⚠ HA ⚠ IP <ul style="list-style-type: none"> ⚠ 1 ⚠ 2 ⚠ 3 	block	secondary	10.0.10.61(!),172.16.0.221(!),62.99.0...
	block		
	secondary		

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Secondary Firewall

Server Status			
Server	Status	Status HA Partner	IP Addresses
[-] VIRTCTRL	secondary	block	10.0.15.3,10.20.0.80,172.16.1.254,19...
[-] Status	secondary		
[-] HA	block		
[-] IP			
[-] 1			10.0.15.3
[-] 2			10.20.0.80
[-] 3			172.16.1.254
[-] 4			194.93.0.80
[-] 5			62.99.0.80
[-] 6			62.99.0.81

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Step 2. Put the Primary Firewall in Standby

Stop the virtual server on the primary firewall to be able to take over the virtual server in case the secondary firewall fails.

1. Log into the primary firewall.
2. Go to **CONTROL > Server**.
3. In the **Server Status** section, select the virtual server and click **Stop Server**.











Server Status			
Server	Status	Status HA Partner	IP Addresses
[-] S1	block	secondary	10.0.10.61(!),172.16.0.221(!),62.99.0...
[-] Status	block		
[-] HA	secondary		
[-] IP			
[-] 1			10.0.10.61(!)
[-] 2			172.16.0.221(!)
[-] 3			62.99.0.221(!)

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On the primary firewall, the virtual server **Status** column shows **down**. On the secondary firewall, the virtual server **Status** shows **secondary**.










- The virtual server is still running on the secondary firewall.
- The primary firewall is ready to take over the virtual server in case the secondary firewall fails.

Primary Firewall

Server Status			
Server	Status	Status HA Partner	IP Addresses
 VIRTCTRL  Status  HA  IP	down	secondary	10.0.15.3(!),10.20.0.80(!),172.16.1.25...
	down		
	secondary		
 1			10.0.15.3(!)
 2			10.20.0.80(!)
 3			172.16.1.254(!)
 4			194.93.0.80(!)
 5			62.99.0.80(!)
 6			62.99.0.81(!)

Block Server Start Server Stop Server Restart Server

Secondary Firewall

Server Status			
Server	Status	Status HA Partner	IP Addresses
 VIRTCTRL  Status  HA  IP	secondary	down	10.0.15.3,10.20.0.80,172.16.1.254,19...
	secondary		
	down		
 1			10.0.15.3
 2			10.20.0.80
 3			172.16.1.254
 4			194.93.0.80
 5			62.99.0.80

Block Server Start Server Stop Server Restart Server

Perform a High Availability Failover when the Secondary Unit is Active

To perform a manual failover when the secondary unit is active, block and stop the virtual server on the secondary unit.

Before you Begin

- On the primary firewall, go to the **Control > Server** page and verify the **Status** is **down**. If the **Status** is blocked, click **Stop Server**.

Server Status			
Server	Status	Status HA Partner	IP Addresses
VIRTCTRL	down	secondary	10.0.15.3(),10.20.0.80(),172.16.1.254...
Status	down		
HA	secondary	down	
IP			
1			10.0.15.3()
2			10.20.0.80()
3			172.16.1.254()
4			194.93.0.80()
5			62.99.0.80()
6			62.99.0.81()

Block Server Start Server Stop Server Restart Server

- On the secondary firewall, go to the **Control > Server** page and verify the **Status** is **secondary**.

Server Status			
Server	Status	Status HA Partner	IP Addresses
VIRTCTRL	secondary	down	10.0.15.3,10.20.0.80,172.16.1.254,19...
Status	secondary		
HA	down		
IP			
1			10.0.15.3
2			10.20.0.80
3			172.16.1.254
4			194.93.0.80
5			62.99.0.80

Block Server Start Server Stop Server Restart Server

Step 1. Block the Virtual Server on the Secondary Unit

- Log into the secondary firewall.
- Go to the **Control > Server** page.
- In the **Server Status** section, select the virtual server and click **Block Server**.

Server Status			
Server	Status	Status HA Partner	IP Addresses
VIRTCTRL	secondary	down	10.0.15.3,10.20.0.80,172.16.1.254,19...
Status	secondary		
HA	down		
IP			
1			10.0.15.3
2			10.20.0.80
3			172.16.1.254
4			194.93.0.80
5			62.99.0.80
6			62.99.0.81

Block Server Start Server Stop Server Restart Server

On the secondary firewall, the virtual server **Status** column shows **block**. On the primary firewall, the virtual server **Status** shows **primary**.

- The virtual server is now running on the primary firewall.
- The secondary firewall is blocked and cannot take over the virtual server in case the primary firewall fails.

Primary Firewall

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

Secondary Firewall











Server Status			
Server	Status	Status HA Partner	IP Addresses
<ul style="list-style-type: none"> ⚠ VIRTCTRL <ul style="list-style-type: none"> ⚠ Status ⚠ HA <ul style="list-style-type: none"> ⚠ IP 1 2 3 4 5 6 	<ul style="list-style-type: none"> block block primary 	<ul style="list-style-type: none"> primary 	<ul style="list-style-type: none"> 10.0.15.3(!),10.20.0.80(!),172.16.1.25...
			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

Step 2. Put the Secondary Firewall in Standby

Stop the virtual server on the secondary firewall to be able to take over the virtual server in case the primary firewall fails.

1. Log into the secondary firewall.
2. Go to **CONTROL > Server**.
3. In the **Server Status** section, select the virtual server and click **Stop Server**.











Server Status			
Server	Status	Status HA Partner	IP Addresses
 VIRTCTRL	block	primary	10.0.15.3(!),10.20.0.80(!),172.16.1.254...
 Status	block		
 HA	primary		
 IP			
 1			10.0.15.3(!)
 2			10.20.0.80(!)
 3			172.16.1.254(!)
 4			194.93.0.80(!)
 5			62.99.0.80(!)
 6			62.99.0.81(!)

Block Server Start Server **Stop Server** Restart Server

On the secondary firewall, the virtual server **Status** column shows **standby**. On the primary firewall, the virtual server **Status** shows **primary**.

- The virtual server is still running on the primary firewall.
- The secondary firewall is ready to take over the virtual server in case the primary firewall fails.

Primary Firewall

Server Status			
Server	Status	Status HA Partner	IP Addresses
 VIRTCTRL	primary	standby	10.0.15.3,10.20.0.80,172.16.1.254,19...
 Status	primary		
 HA	standby		
 IP			
 1			10.0.15.3
 2			10.20.0.80
 3			172.16.1.254
 4			194.93.0.80
 5			62.99.0.80
 6			62.99.0.81

Block Server Start Server Stop Server Restart Server

Secondary Firewall

Server Status			
Server	Status	Status HA Partner	IP Addresses
<ul style="list-style-type: none"> ✔ VIRTCTRL ✔ Status ✔ HA ✔ IP <ul style="list-style-type: none"> 1 2 3 4 5 6 	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(!)

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Figures

1. db_fwl_05.png
2. ha_manual_failover_9.png
3. ha_manual_failover_10.png
4. ha_manual_failover_01.png
5. ha_manual_failover_02.png
6. ha_manual_failover_02a.png
7. ha_manual_failover_04.png
8. ha_manual_failover_04a.png
9. ha_manual_failover_03.png
10. ha_manual_failover_04a.png
11. ha_manual_failover_03.png
12. ha_manual_failover_5.png
13. ha_manual_failover_6.png
14. ha_manual_failover_7.png
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