How to Manage a High Availability Environment with Two Barracuda Load Balancer ADCs

https://campus.barracuda.com/doc/18449262/

For an overview of High Availability, and a list of requirements, see the article Understanding Barracuda Load Balancer ADC High Availability .

Failover Due to the Monitored Link Going Down

There is an option to fail over to the Backup unit if the Primary unit cannot detect all monitored links.

Failover Due to Software Failures or Lack of Resources

An automatic failover can also be triggered by software failures or low system resources:

- System critical process failures (for example, the data path processes or configuration handling processes crashes 3 or more times within 10 minutes).
- Low memory (if system memory usage exceeds 75% of total system memory).

Forceful or Manual Failover

You can force failover to the Backup unit using the web interface. This transfers the load to the Backup unit without bringing down any of the interfaces of the Primary unit. When the Backup unit becomes Active, interface cables can be removed or other maintenance performed on the now-Backup unit (for example, the failed Primary unit).

Primary and Backup Roles

When two units are joined in a cluster, the unit from where the Join Cluster operation is performed is the Backup unit. The other one has the role of Primary unit. Initially, the Primary unit is the Active system that serves the traffic. Either of the systems in a cluster is capable of being the Active system.

Failback

You can enable the **Automatic** failback option on the **ADVANCED > High Availability** page if you want the original Active (Primary) unit to take over the Virtual IP addresses and resume load

balancing once it has recovered from a failure.

You can manually switch to the Primary unit using the Failback command that is available on the same page.

It may be better to opt for manual failback, as it can minimize the number of times that service is interrupted. For example, if the Primary unit suffers an outage, the Backup unit takes over. When the Primary unit recovers, if automatic failback is selected, then it will once again become the Active unit. This means two interruptions of service. If manual failback is selected, the Backup unit continues to process traffic even after the recovery of the Primary unit.

If it appears that the Barracuda Load Balancer ADC is entering fault states due to running low on memory, Barracuda Networks recommends setting the failback mode to **Manual**.

> If the Backup unit also runs low on memory, it should failback to the Primary unit as long as that system is in a good state. If both units enter a fault state due to memory problems, they will not be able to service traffic. If you are unable to determine the cause of the low memory problem on the clustered units, please contact Barracuda Networks Technical Support.

Synchronize Data between Clustered Systems

When two Barracuda Load Balancer ADCs are initially joined, most configuration settings are copied from the primary system in the cluster to the backup system (the system that joins the cluster). These settings are synchronized between the systems on an ongoing basis.

The following data is *shared* between the clustered systems:

- Global system settings configured through the web interface
- Any installed SSL Certificates
- All static routes and VLANs, etc., configured on the **ADVANCED > Advanced IP Config** page

The following data is *unique* between the clustered systems:

- The Management IP address configuration (DNS servers and domain) configured on the **BASIC > IP Configuration** page.
- System password, time zone, and web interface HTTP port as configured on the **BASIC > Administration** page
- Parameters on the **ADVANCED > Appearance** page
- The HTTPS port and SSL certificate used to access the web interface as configured on the **ADVANCED > Secure Administration** page.