ALOHA LOAD BALANCER
LOAD BALANCING FTP

"APPNOTE" #0046 — LOAD BALANCING FTP

This application note is intended to help you to configure the Aloha to load-balance File Transfer Protocol (FTP).

REQUIREMENTS

You must have at least a couple of server with FTP server in active mode.

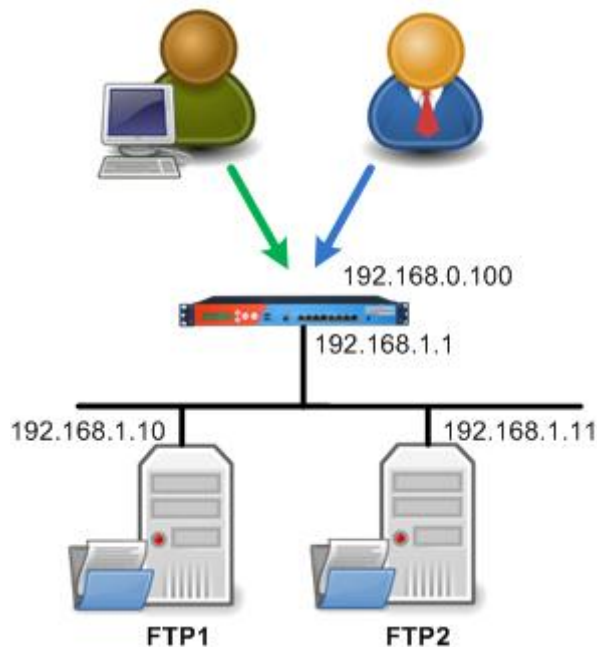## PURPOSE

Ensure high availability of a FTP service.

COMPLEXITY

★★☆☆☆

VERSIONS CONCERNED

V 4.1 and above

TARGET NETWORK DIAGRAM

Standard architecture, as bellow:

EXCELIANCE

CONTEXT

The clients will use the FTP service on the IP 192.168.0.100.

The Aloha load balance traffic to the two FTP servers 192.168.1.10 and 192.168.1.11.

The Aloha is configured in NAT mode using LVS/layer 4 load balancing service.

There is currently two ways to load-balance FTP with the Aloha.

1. Basic configuration, easy to configure
2. Advanced configuration, a bit harder than basic, but ensure a better load balancing

You should use basic configuration when you want to provide a high available FTP service.

Prefer second method if you want to improve load balancing, as well as providing high availability.

COMMON CONFIGURATION

In both cases, you'll have to enable the flow manager and the LVS service at start up.

FLOW MANAGER SERVICE

If your **flowmgr** service is not configured to automatic startup when the Aloha boots up, then go in the **Service** tab of the GUI and click on the **flowmgr** setup icon .

If there is a line "`no autostart`", then delete it.

Click on **[OK]** then **[Close]**

Then restart the **flowmgr** service by clicking on the restart icon .

LVS SERVICE

If your **lvs** service is not configured to automatic startup when the Aloha boots up, then go in the **Service** tab of the GUI and click on the **lvs** setup icon .

If there is a line "`no autostart`", then delete it.

Click on **[OK]** then **[Close]**

Then restart the **lvs** service by clicking on the restart icon .

BASIC CONFIGURATION

FLOW DIRECTOR CONFIGURATION

On the GUI, click on **Flows** tab, then add the configuration below:

```
flow f_ftp director d_ftp
  match proto tcp dst 192.168.0.100 dstport 20:21
  match proto tcp dst 192.168.0.100 dstport 1024:65535
```

Click on **[OK]**, then **[Apply]**.

LB LAYER 4 CONFIGURATION

On the GUI, click on **LB Layer 4 tab**, then add the configuration below:

```
director d_ftp
  mode nat
  balance source
  option icmpcheck interval 10
  server ftp1 192.168.1.10 weight 10 check
  server ftp2 192.168.1.11 weight 10 check
```

Click on **[OK]**, then **[Apply]**.

ADVANCED CONFIGURATION

LOAD LVS FTP MODULE

On the GUI, go in the service tab and click on the **network** service setup icon and add the line below after all the comments:

```
    modprobe ip_vs_ftp
```

Then restart the **network** service by clicking on the restart icon .

FLOW DIRECTOR CONFIGURATION

On the GUI, click on **Flows** tab, then add the configuration below:

```
flow f_ftp director d_ftp
  match proto tcp dst 192.168.0.100 dstport 20:21
  match proto tcp dst 192.168.0.100 dstport 1024:65535
```

Click on **[OK]**, then **[Apply]**.

LB LAYER 4 CONFIGURATION

On the GUI, click on **LB Layer 4 tab**, then add the configuration below:

```
director d_ftp
  mode nat
  balance roundrobin
  option icmpcheck interval 10
  server ftp1 192.168.1.10 weight 10 check
  server ftp2 192.168.1.11 weight 10 check
```

Click on [OK], then [Apply].