

Load Balancers and IP Addresses

THE INFORMATION IN THIS ARTICLE APPLIES TO:

- EFT, v7 and later in HA mode

PROBLEM

Typically load balancers sit between clients and servers and are configured to NAT translation so internal IP addresses/ports are never revealed to the outside world and likewise external IP address/ports are never seen by a server. The F5 has what it calls SNATs (Smart NAT) which can be explicitly setup per network or made to work automatically. When it is in place the F5 will replace the IP address/port for every incoming packet with virtual ones.

Although this is generally a secure way of configuring a load balancer, one disadvantage to this setup is that the server behind the LB will only see the F5 IP address.

For EFT this can affect such areas as:

- ARM reports
- Logging
- IP Ban
- Event rules
- AWE tasks

Event rules will be limited, ARM reports will show transactions all coming from the same IP Address, and regular traffic will appear as a DOS attack.

SOLUTION

One way to deal with this is to allow client IP addresses to pass through to the servers behind the LB. It is relatively easy to have the F5 device setup for this. The biggest consideration in doing this is that each server in the pool must have their default gateway pointing to the F5 box (that is, unless the clients are internal and will be on the same subnet as the servers).

MORE INFORMATION

Load Balancers and IP Addresses

This assumes that you already have your F5 setup with nodes, a pool of either EFT or DMZ Gateway servers, and you are setting up your virtual server (i.e., to provide HTTPS service).

1. Select the virtual server you want to configure.
2. Make sure the Address Translation checkbox is checked and the SNAT is set to None.
3. For every EFT server (or DMZ instead, if that is used) in the associated pool, you must set the F5 as the default gateway.

NOTES:

- This applies to non-HTTP protocols because the HTTP headers do this already.
- The load balancer/traffic manager and DMZ Gateway must be on the same VLAN.

The screenshot shows the F5 configuration interface for a virtual server named 'ha1_http_vserver'. The 'Advanced' configuration tab is selected, showing various settings. Red arrows point to the 'Address Translation' and 'SNAT Pool' settings. A text box explains that with no SNAT, the source IP address will not change, but the EFT server (or DMZ server) must have the F5 as its gateway.

Section	Property	Value	
General Properties	Name	ha1_http_vserver	
	Partition	Common	
	Destination	Type: <input checked="" type="radio"/> Host <input type="radio"/> Network Address: [Empty]	
	Service Port	[80] [HTTP]	
	PVA Acceleration	None	
	Availability	<input checked="" type="checkbox"/>	
	State	[Enabled]	
	Configuration: [Advanced]	Type	[Standard]
		Protocol	[TCP]
		Protocol Profile (Client)	[tcp]
Protocol Profile (Server)		[Use Client Profile]	
OneConnect Profile		[None]	
NTLM Conn Pool		[None]	
HTTP Profile		[http]	
FTP Profile		[None]	
SSL Profile (Client)		[None]	
SSL Profile (Server)		[None]	
Authentication Profiles		[None] Available: ssl_cc_idap	
Stream Profile		[None]	
RTSP Profile		[None]	
SIP Profile		[None]	
Statistics Profile		[None]	
VLAN Traffic		[All VLANS] Available: [None]	
Traffic Class		[None]	
Connection Limit		[0]	
Address Translation		<input checked="" type="checkbox"/> Enabled	
Port Translation		<input checked="" type="checkbox"/> Enabled	
Source Port	[Preserve]		
SNAT Pool	[None]		
Clone Pool (Client)	[None]		
Clone Pool (Server)	[None]		
Last Hop Pool	[None]		
iSession Profile	[None] Context: [server]		

Load Balancers and IP Addresses

GlobalSCAPE Knowledge Base

<https://kb.globalscape.com/Knowledgebase/11314/Load-Balancers-and-IP-Addres...>