

## 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**

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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 displays the F5 Management Center interface for configuring a virtual server named 'ha1\_http\_vserver'. The 'General Properties' tab is active, showing fields for Name, Partition, Destination, Service Port, PVA Acceleration, Availability, and State. The 'Configuration' tab is also visible, showing various profile settings. Red arrows point to the 'Address Translation' and 'SNAT Pool' settings, with a note explaining that without SNAT, the source IP address will not change, and the EFT server (or DMZ server) must have the F5 as its gateway.

**General Properties**

Name	ha1_http_vserver
Partition	Common
Destination	Type: <input checked="" type="radio"/> Host <input type="radio"/> Network Address: 10.10.10.10
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	Enabled: Available: ssl_co_idap
Stream Profile	None
RTSP Profile	None
SIP Profile	None
Statistics Profile	None
VLAN Traffic	All VLANs
Traffic Class	Enabled: Available:
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

Update Delete

With no SNAT it will not change the source IP address, but the EFT server (or DMZ server) must then have the F5 as its gateway.

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GlobalSCAPE Knowledge Base

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