Integrating EFT HA in a network with a Cisco switch

THE INFORMATION IN THIS ARTICLE APPLIES TO:

- EFT v7.2 and later

DISCUSSION

Globalscape engineers had the opportunity to test EFT HA against a Cisco Nexus 5672 and a Cisco Nexus 9396PX switch running NX OS version 7.0(3)I2(1). The test consisted of two laptops running EFT in HA with each laptop connected to a port on the Nexus switch being tested. With the switch running a fresh out-of-the-box configuration, we enabled debugging on the switch for IGMP so that we could see the traffic, and then we initiated our test.

For the first few minutes everything worked as designed and PGM traffic was being sent across the two nodes, but at the 210-second mark the switch logged the following message:

Noquerier timer expired, remove all the groups in this vlan

IGMP snooping is enabled by default on the Nexus OS, but since there wasn't a Querier (normally a router or a switch is configured to perform this duty) to manage IGMP requests, the timer expires and the packets are no longer sent across the nodes. With the help of a Cisco engineer, we were able to make a small configuration change to solve the problem.

Globalscape recommends to our customers that they create a VLAN for EFT peer notification, create a virtual interface for that VLAN, and then configure the virtual interface to be the IGMP querier for that VLAN. That way, they contain all traffic to that VLAN and they don't have to change the way IGMP traffic is treated for the rest of the network. Below is the configuration that we used for a successful test of EFT with HA and a Cisco switch:

ip address 192.168.27.254 255.255.255.0

#Enter VLAN configuration for the EFT VLAN which in our example is VLAN 199

vlan configuration 199

#Enable IGMP snooping for the VLAN

ip igmp snooping

#Set the IGMP querier for the VLAN to be the IP address of the SVI which in our example is 192.168.27.254

ip igmp snooping querier 192.168.27.254

#Exit Config Mode and Save your changes

end

Below is how it would look like as entered in a switch:

switch(config)# feature interface-vlan

switch(config)# interface vlan 199

switch(config-if)# ip address 192.168.27.254 255.255.255.0

switch(config-if)# vlan configuration 199

switch(config-vlan-config)# ip igmp snooping

switch(config-vlan-config)# ip igmp snooping querier 192.168.27.254

switch(config-vlan-config)# end

Be sure to exit Config Mode and Save your changes.