On L2 device, multicast does not function correctly and the nodes cannot see each other and load balance

THE INFORMATION IN THIS ARTICLE APPLIES TO:

- EFT, all versions

PROBLEM

Out of the box, Cisco 1K/5K switches do not apply IGMP snooping to the VLAN to reduce bandwidth/cpu consumption and prevent flooding of packets. Without the querier, multicast will not function correctly and the nodes will not see each other and be able to load balance.

RESOLUTION

Cisco provides a document to help users resolve these issues due to the modernized nature of multicast operation on L2 devices.

The link below contains the Cisco steps to enable this on the respective devices in conjunction with the UCS.

http://www.cisco.com/c/en/us/support/docs/servers-unified-computing/unified-computing-system/117360

MORE INFORMATION

Multicast was initially designed to use Layer 3 (L3) functionality, where multiple hosts from a network subscribe to a multicast address. The new trend is to use L2 multicast functionality, where traffic flows between VMs that participate in a multicast application across hosts on the same VLAN. Such multicast traffic stays within the same L2 domain and does not need a router. When there is no multicast router in the VLAN that originates the queries, you must configure an Internet Group Management Protocol (IGMP) snooping querier in order to send membership queries. IGMP snooping is enabled by default on the UCS, N1kV, and N5k. You can enable IGMP snooping querier on either the UCS or an N5k, dependent upon the scope of the L2 multicast. If there are multicast receivers outside of the UCS, configure the snooping querier on the N5k.

GlobalSCAPE Knowledge Base
https://kb.globalscape.com/Knowledgebase/11222/On-L2-device,-multicast-does...