ClearOne®

StreamNet™

VIEW & VIEW Pro Network

Administration Readiness Guide

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Network Infrastructure Optimization

QOS REQUIREMENTS

Ensure a reliable and robust network with the following:

- ☐ 100/1000BASE-T auto-sensing Gigabit Ethernet switching ports
- ☐ 10 Gigabit Ethernet uplink modules for Multiple Switch Configuration
- ☐ IGMP v2 or v3 support*
- ☐ IP IGMP v2 or v3 Querying*
- ☐ IP IGMP v2 or v3 Snooping*
- ☐ Multicast support with Filtering
- ☐ IP IGMP Immediate-Leave or Fast-Leave implementation
- ☐ Jumbo Frame of 4096 or greater, 9016 if available
- ☐ IP Routing
- ☐ Spanning Tree Rapid Mode or Disabled

*Forced IGMP v2 for best compatibility

BEST PRACTICES

- ☐ Create a separate VLAN for all StreamNet devices
- ☐ Create an ACL (Access Control List) that blocks IGMP on the uplink port to connect to a host switch or router
- ☐ Sources should be connected to the master switch, and this should be the master querying switch with lowest IP address
- ☐ Star-topology Infrastructure highly recommended
- ☐ Link Aggregation methods (LAGS) should not be used as they are not fully compatible with IGMP querying

Network Infrastructure Pre-Qualification Checklist

INFRASTRUCTURE QUESTIONS

Is this a pre-existing network?

+YES

What Switch Topology has been used _____
What is the available Bandwidth on all Network Uplinks between switches _____
Is there a Layer 2 Topology Diagram available for the existing network _____
How many Source Encoders will be used in the Project _____
How many Video Decoders will be used in the Project _____
Where will the Source Encoders be located in the Topology _____
Where will the Video Decoders be located in the Topology _____
What are the maximum distances within the network _____
Future Scalability, will the system need to scale at some point _____

YES

What is the Maximum expectation_____
Verify the Bandwidth Requirements on all switches and Uplinks _____
Verify the total number of Multicast Addresses needed for the entire project _____

+NO

How many VLANs will be used in this Topology _____
  • If multiple VLANs, VLAN and Multicast Routing will need to be implemented
How many Source Encoders will be used in the Project _____
How many Video Decoders will be used in the Project _____
Where will the Source Encoders be located in the Topology _____
Where will the Video Decoders be located in the Topology _____
What are the maximum distances of the proposed network _____
What Switch Topology will be used (Star Topology recommended) _____

FIBER UPLINK CONSIDERATIONS

Is there pre-existing Fiber cable between sites?

+YES

What is the Modal Bandwidth of existing Fiber Cable _____
What do the Fibers terminate to on each end _____

What is the current Bandwidth Utilization of the existing Fiber _____

+NO

What is the Distance between sites to be connected _____
What is the Bandwidth requirement for the StreamNet Encoders and Decoders _____

ROUTERS AND WIRELESS ACCESS POINTS

☐ Verify that the IGMP/Multicast functions can be disabled on the Router or Wireless Access Point

GLOBAL SWITCH AND UPLINKS REQUIREMENTS

☐ Review IP IGMP Query and Election processes before configuring switches

☐ Review Switch Uplinks to ensure Bandwidth requirements are met for overall system design

☐ Calculate the needed Multicast Address Table requirements for overall system design

STATIC OR DHCP ADDRESSING

☐ DHCP Server is located on the same segment as the StreamNet Devices

☐ DHCP Server address pool is configured for IP Addresses for the total number of StreamNet devices

☐ DHCP Server is configured to assign the correct IP Address and Subnet Mask for the Project

☐ All IP Addresses reside on the same Subnet Mask for proper StreamNet communication