E-rate Networking gear specs 2027

The Salt Lake City School District has a very broad environment where network connectivity is needed from a core switch level all the way down to a small 8/12 port switch that would be suitable for a portable classroom. The manufacture must have a product profile that will fit **all** environments. Mixing & matching manufactures is not preferred. Also, our comm rooms *may* support both 110V and 208V power inputs. The preference is 208V. The following specs for the E-rate projects include but are not limited to the following:

Chassis based switches with 4 to 10 slots with the following capabilities:

Power supplies available in both 208v and 110v. 208v is preferred.

Minimum POE+ support on all copper ports

IEEE 802.3bt POE support on selected copper ports required.

802.3bz – multigig ports

Minimum 1 gig port capacity of 24 ports per switch up to 384 ports per switch. 10 Gb uplinks required

IPv6 support – Routing IPv6 in hardware preferred

Layer 3 routing protocol support including EIGRP or OSPF and static routing

Netflow/Sflow support

Multicast routing support, including PIM Sparse mode, dense mode and sparse dense mode.

L2/L3 ACL support including flexible use of allowing or restricting ip directed broadcasts from specific subnets.

Port security & 802.1x features for switch interfaces

Support contracts/limited lifetime warranty

SNMP2c & SNMP3 support

802.1Q vlans

Link Discovery protocol support such as CDP or LLDP

Full Compatibility with existing NMS (LibreNMS)

Link aggregation – LACP and no negotiation

QoS / voip support without having to configure 802.1q tagged ports

Installation & Config assistance

Manpower required to change currently used protocols and NMS will be considered in overall price.

Spanning-tree 802.1D, 802.1w & 802.1s and PVST+ & MSTP

DHCP server

Rogue DHPC source mitigation

ARP poisoning mitigation and protection

Bonjour/Service Discovery gateway services (mDNS gateway services)*

No 3rd Party SFPs will be accepted.

Secondary IP addresses on routed Interfaces

1U switches (48 port, 24 port, 8-12 port switches):

Minimum POE+ support on all ports simultaneously

IEEE 802.3bt POE support on selected copper ports required.

10 Gb uplinks required

802.3bz – multigig ports

802.3bt – IEEE PoE support.

Switch stacking capabilities.

IPv6 support –routing IPv6 in hardware preferred

Layer 3 routing protocol support including EIGRP or OSPF and static routing

L2/L3 ACL support including flexible use of allowing or restricting ip directed broadcasts from specific subnets.

Netflow/Sflow support

Multicast routing support, including PIM Sparse mode, dense mode and sparse dense mode.

ACL support including flexible use of allowing or restricting ip directed broadcasts.

Port security & 802.1x features for switch interfaces

Support contracts/limited lifetime warranty

SNMP2c & SNMP3 support

802.1Q vlans

Link Discovery protocol support such as CDP or LLDP

Full compatibility with existing NMS required. (LibreNMS)

Installation & Config assistance

QoS / voip support without having to configure 802.1q tagged ports

Link aggregation – LACP and no negotiation

Manpower required to change currently used protocols and NMS will be considered in overall price.

Switches must be stackable so that 1 IP address is used to manage all switches in a stack. Stacked switches stacking link minimum speed 64 gig, preferred 128 gig or higher.

Spanning-tree 802.1D, 802.1w & 802.1s and PVST+ & MSTP

DHCP server

Rogue DHPC source mitigation

ARP poisoning mitigation and protection

Must have flexible mounting functions. 24 and 48 port switches may be mounted to a wall in a classroom. Mounting kit options must be available for this kind of set up.

For 8 & 12 port switches, internal power supplies are preferred. Any external power supplies, if not mount friendly, will be denied.

8 & 12 port switches need to fit in a mounting area of: 23" x 12"

*Any switch that performs routing functions must support mDNS gateway services.

No 3rd Party SFPs will be accepted.

Wireless Access Points

All access points must be compatible with Cisco Wireless controllers.

Full compatibility with existing NMS required. (Cisco Catalyst Center Version 2.3.7.11.71047.100 or later)

All gear must be new. No used or refurbished gear will be accepted.

Power

The following electrical receptacle types are in our communication rooms and PDUs. Vendors must have all of these cabling types available.

NEMA L6-30R - Wall outlets / UPS outlets

NEMA L6-20R - Wall outlets / UPS outlets

NEMA 5-20R - Wall outlets / UPS outlets /PDU

NEMA 5-15R - UPS outlets/ PDU

IEC C13 Socket - PDU