COLCHESTER SCHOOL DISTRICT

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Introduction

The Colchester School District is seeking proposals from E-Rate eligible service providers for for the E-rate Funding Year 2022-2023 for the following Category 2 equipment:

- Network switching
- Network firewall

Submission Directions

E-Mail proposals to: Pamela Barclay, Technology Director at Pam.Barclay@colchestersd.org

Summary

The Colchester School District serves over 2000 students in five schools, the Colchester High School, the Colchester Middle School, Mallets Bay Elementary school, the Porters Point School and the Union Memorial School in Vermont.

The district's network is comprised of a 3-tiered, core, distribution and access system of switches connecting wired and wireless devices over CAT 6 ethernet, single and multimode fiber media. Due to growth in the number of LAN connected devices and increased internet bandwidth two (2) additional switches are required to maintain capacity within the system. The district's firewall has entered the manufacturers active retirement schedule in 2021 and a replacement firewall is required.

Network switching

Distribution layer switching in the LAN is currently provisioned with Cisco model 3850-12XS switches which provide twelve (12) SFP+ ports. Existing distribution switches utilize a single 120V AC power supply and are connected to UPS battery backup power supplies.

- Proposals for one (1) Cisco 3850-12XS or an equivalent switch providing a minimum of twelve (12) SFP+ ports and one (1) 120V AC power supply are requested.

Internet connectivity is distributed from two service providers to the internal firewall system via an intermediate switch connected to both active and passive nodes.

- Proposals for a one (1) managed layer 2 switch with a minimum of four (4) 10G SFP+ ports, out-of-band management via ethernet management port and one (1) 120V power supply are requested.

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Network firewall

   A central firewall system provides security filtering, logging and reporting services for the entire district. Internet connectivity from two service providers are distributed from the firewall to the district's schools from the high school location over a combination of private fiber and leased lines. The middle and elementary schools and the district central office are connected on private fiber, the two more distant K-2 schools on 200 Mbps leased circuits. Connection to the public internet are over one 2G fiber service and 100M cable-based connection for redundancy. The existing firewall entered the manufacturers active retirement mode in 2021.

   The firewall in use is a SonicWALL NSA 5600 in an active/passive HA configuration. Services utilized on the firewall system include internet connectivity failure detection and failover, intrusion protection and detection, anti-virus, anti-malware, application control, SSL inspection, active-directory based user identification and active-directory group-based security policy filtering, multiple zone-based policies, network address translation, integrated policy-based content filter and a separate virtualized analysis and reporting application.

   The goals for a replacement firewall are to provide the capacity and services to meet current and anticipated needs, including

- ✓ Diverse internet connectivity with load balancing and automatic failover.
- ✓ Support for 10G connectivity.
- ✓ Zone segmentation, e.g. WAN, LAN, DMZ.
- ✓ Independent zone-based security policies.
- ✓ Integration to multiple authentication systems for user and device identification, Active-Directory and Google based authentication are desired.
- ✓ Integrated logging with analytics and reporting.
- ✓ Security signature updates including zero-day threat updates.
- ✓ SSL VPN and site-to-site VPN support.

- • Proposals for a replacement firewall system including optional installation services are requested. Firewalls proposed should address the above goals and include the following features and specifications below.

- ✓ Integrated intrusion (IDS/IPS) detection and prevention with signature updates.
- ✓ Integrated anti-virus, anti-malware protection with signature updates.
- ✓ IPV4, IPV6 basic address packet filtering.
- ✓ Application aware control and filtering policies.
- ✓ SSL decryption and inspection.
- ✓ Category based URL filtering.
- ✓ User / device-based identification via Active Directory, G Suite, or ClearPass
- ✓ Integrated SSLVPN and IPSEC site-to-site connectivity
- ✓ Web based (HTML 5) management interface.
- ✓ Role-based system administration with LDAP integration.
- ✓ Content filter logging, analytics and reporting.
- ✓ Customizable system and log report scheduling with delivery via email.
- ✓ External logging storage capability

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Firewall Hardware Specifications

- o Minimum two (2) 10 GE SFP+ ports and eight (8) 1G SFP or 1G ethernet ports.
- o Redundant / high availability capability for continuous operation.
- o Management interfaces to include GUI, CLI. Console and ethernet mgmt. connectivity
- o Hot swappable power supplies.
- o Combined throughput including all services to exceed 5 Gbps

Expectations:

Please describe the availability of the above specified equipment and services with all associated costs and terms along with details about your business.

Key Dates:

Deadline for proposal as set by the SLD is 28 days from the date of 470 posting.