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Job Title: Technology Network Engineer

Wage/Hour Status: Exempt

Reports to: Chief Technology Officer

Pay Grade: AM - 4

Dept. /School: Technology

Date Revised: 04-30-18

Primary Purpose: To provide the most efficient, reliable, effective, and customer friendly end-user support to all campuses/departments. The Network Engineer is responsible for designing, administering, maintaining, and upgrading all core network devices, including firewalls, content filters, application delivery controllers, security access control, video surveillance, and phone systems. Daily responsibilities include ensuring security, integrity and high-availability of enterprise level systems and related components to support the district while maintaining network availability with minimal downtime. In addition, the Engineer will regularly interact and work directly with inside and outside entities to troubleshoot network issues, discuss network architecture, integrate both new and aging technologies, present possible network solutions and enhancements, and implement agreed upon solutions.

Qualifications:

Education/Certification:

- Bachelor's or Master's Degree or equivalent of a minimum 20 years advanced experience in technology network infrastructure
- Cisco CCNP R&S required
- Various technical certifications such as Cisco CCNP R&S, CCNP Voice, VMWare, or related network certifications preferred

Special Knowledge/Skills:

- Extensive knowledge and experience with Cisco Nexus devices, routing protocols, and firewall administration
- Extensive knowledge and experience of Cisco ASA and Sourcefire firewalls and Fortigate Firewalls
- Strong knowledge and experience of Fortigate Firewalls
- Extensive knowledge and experience of Cisco routers and switches
- Extensive knowledge and Experience of Cisco Wireless Networks and Controllers
- Strong Knowledge and experience of Cisco Call Manager and Cisco Unified Communications System
- Knowledge of Cisco USC server environments
- Knowledge of Linux OS - Server and workstation
- Knowledge of Macintosh OS - MDM and workstation
- Knowledge of Cisco IPS / IDS
- Knowledge of F5 Application Delivery Controllers
- Knowledge of VMWare
- Knowledge of Cisco Access Control System



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- Knowledge of Cisco Identity Services Engine
- Knowledge of 802.1x Authentication Protocols
- Extensive knowledge and Experience of local area network infrastructure including switches and other wired network devices
- Extensive knowledge of TCP/IP protocol use and troubleshooting
- Strong Knowledge of LAN / WAN design and best practices
- Extensive knowledge of wireless network protocols, equipment, security, and troubleshooting
- Knowledge of voice-over-IP phone systems
- Strong Knowledge of PC operating systems
- Ability to communicate effectively and work as a team
- Ability to quickly and appropriately troubleshoot and repair problems

Experience:

At least 5 years advanced experience in technology network infrastructure preferred

Major Responsibilities and Duties:

- Installation, upgrade, configuration and troubleshooting of all infrastructure hardware
- Maintain network security using available network tools and equipment such as firewall, IDS/IPS, VLAN, DNS.
- Manage and maintain internet content filtering solution to meet CIPA compliance for all users.
- Administer Linux network servers and maintain strategic hardware replacement, patches, and OS upgrades with minimal downtime.
- Evaluate and/or recommend purchases of network hardware, peripheral equipment, and software and assist with technology planning through ongoing research
- Investigate user problems, identify their source, determine possible solutions, test and implement solutions
- Plan and implement network security applying cryptography to network applications, managing host security, and file permissions
- Provide consistent Internet access to classrooms to be used as a teaching tool while filtering web content for unwanted material
- Protect network systems and workstations from virus/worms/malware by using appropriate anti-virus software and maintaining an aggressive update schedule
- Troubleshoot networks, systems, and applications to identify and correct malfunctions and other operational difficulties
- Develop and conduct various training and instruction for system users on network systems, relational databases, and other applications
- Assist users in maximizing use of networks and computing systems
- Identify utilization patterns and their effect on operation/system availability and performance expectations
- Anticipate communication and networking problems and implement preventive measures



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- Establish and perform maintenance programs following company and vendor standards
- Ensure timely user notification of maintenance requirements and effects on system availability
- Investigate, recommend and install enhancements and operating procedures that optimize network availability
- Maintain confidentiality regarding the information being processed, stored or accessed on the network
- Document network problems and resolutions for future reference
- Document and provide a clear disaster recovery plan to protect mission critical systems
- Plan and design a working network infrastructure that best fits the needs of the users and provides optimal speed and reliability
- Provide network security by recognizing network threats and vulnerabilities using available network monitoring tools and implement a plan to combat these issues
- Analyze system logs and identify potential issues with network systems
- Assist other technology departments in planning and decision making for future technology implementations
- Provide direction and training on new network technologies to appropriate personnel
- Support projects from all groups within the department. Providing outstanding customer service to all
- Participate in team and department meetings and knowledge transfer sessions
- Work with vendors to resolve complex network problems
- Maintain site licenses for department/organization

Professional Duties and Obligations:

- Follow the direction established by the superintendent and Board of Trustees
- Prepare, maintain and present all information, reports, and records as required
- Collaborate with other personnel in a collegial, supportive manner
- Demonstrate integrity and ethics
- Display proficient levels of technology applications
- Utilize time wisely for effective management of job responsibilities
- Maintain punctuality in daily work times, appointments, and meetings
- Meet task completion deadlines established by supervisor
- Maintain a positive and professional tone in all communication
- Perform other duties and accepting other responsibilities as assigned

Equipment Used:

Computers, network troubleshooting tools (i.e. cable testers, protocol analyzers, spectrum analyzers, etc.), hand tools



Physical Demands:

	Not Required	Occasional	Frequent	Constant
Bending		X		
Pushing		X		
Hearing				X
Reaching		X		
Climbing		X		
Seeing				X
Speaking				X
Standing		X		
Lifting		X		
Walking		X		
Sitting			X	

Additional Responsibilities:

- Assist personnel of other departments as a resource in the area of network infrastructure
- Provide on-the-job training to new department staff members
- Other duties as assigned

Supervisory Responsibilities:

Monitor the work and issue work assignments to network and computer technicians

Mental Demands/Physical Demands/Environmental Factors:

Tools/Equipment Used: Hand tools and test instruments for electronic repairs and cable installations; standard office equipment including personal computers and peripherals

Posture: Prolonged sitting; regular kneeling/squatting, bending/stooping, pushing/pulling, twisting

Motion: Repetitive hand motion; frequent keyboarding and use of mouse; regular walking, grasping/squeezing, wrist flexion/extension, reaching; may climb ladders

Lifting: Regular moderate lifting and carrying (up to 44 pounds); occasional heavy lifting and carrying (45 pounds and over)

Environment: Work is performed in an office environment; frequent on-call and after-hours work; occasional districtwide travel; may be required to be on-call 24 hours a day.

Mental Demands: Work with frequent interruptions; emotional control under stress



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The foregoing statements describe the general purpose and responsibilities assigned to this job and are not an exhaustive list of all responsibilities and duties that may be assigned or skills that may be required.

Employee Print Name _____

Employee Signature _____

Date _____