

Job Title: Network and Security Engineer
Reports to: Director of Technology & Information Services
Department: Technology

Primary Purpose: Individual will be responsible for network security, VPN, and Firewalls. Position is responsible for design, testing, implementation and maintenance of all network and desktop security software and hardware. Evaluate new security solutions for all WSISD services including GPS and RFID networks, internet services, hosted solutions and voice and data networks. Develop and implement disaster recovery procedures. Manage WAN and resource access privileges, profiles, and other user security.

Secondary Responsibilities: In addition to the security, the individual will have secondary responsibilities for installation, testing, and oversight of all network hardware, personal computers, software, and related equipment. Perform on-site technical work to install and maintain computer equipment and software applications throughout the district. Respond to work order requests by diagnosing and repairing network and computer hardware. Support districts in the use of Internet Services and Network connectivity. Responsible for Help-Desk support, technology problem evaluation and distribution of technology-related work orders. Administer and operate the district's central administrative computer networks. Develop, maintain and monitor all district local area networks (LAN) and wide area networks (WAN).

Qualifications:

Education/Certification:

Associate's degree in computer science or electronics and/or certification such as MCSE, CNE, A+, CCNA, CCIE.

Special Knowledge/Skills:

- Cisco Certified Network Administrator and/or Microsoft Certified Engineer
- Knowledge of computer workstation setup and configurations
- Experience in troubleshooting Cisco routers, switches and fault-tolerant redundant environments along with cable plant and infrastructure experience
- Solid understanding of WAN and LAN protocols – Spanning tree, Ethernet, and Fast Ethernet
- In-depth knowledge of DNS, SMTP and server technologies
- Operational experience managing Firewalls, VPNs, Virus protection, anti-spyware, and encryption
- Extensive experience with IP addressing to include subnetting
- Knowledge of local and wide area network architectures
- Solid knowledge and experience with TCP/IP and TCP/IP services such as SMTP, HTTP, and FTP
- Strong background in infrastructure including twisted pair Category 5, 5e, and 6 cabling as well as single mode and multi-mode fiber
- Broad knowledge of various operating systems (Microsoft, UNIX, Apple, Novell)
- Broad knowledge of computer hardware and software applications
- Ability to analyze and resolve computer hardware and software problems
- Application security skills
- Knowledge of security solutions for voice and data networks, desktops, GPS/RFID networks
- Knowledge of and experience with IDS/IPS systems and technologies, as well as event correlation
- Ability to develop and modify Information security and change management policies
- Strong organizational, communication, and interpersonal skills
- Ability to detect, diagnose and resolve problems quickly

Major Responsibilities and Duties:

Personal Effectiveness:

1. Positive Attitude: Presents a positive role model for patrons that supports the goals of the WSISD.
2. Cooperation: Works effectively with others.
3. Dependability: Reports to work on time, is reliable for regular and overtime work, and is absent only with good cause.
4. Judgment: Exhibits good judgment in decision-making and problem solving.
5. Initiative: Recognizes needs of job and suggests ways to improve efficiency and productivity.

Job Specific Responsibilities:

6. Oversee the day-to-day operation of wide area network infrastructure, including hardware/software support, training, special projects, system backup and recovery, maintenance, troubleshooting, and problem solving
7. Plan, design, and implement data connectivity for local area network (LAN) and wide area network (WAN)
8. Assist and coordinates special projects including infrastructure upgrades, LAN/WAN hardware/software upgrades, system installation
9. Maintain documentation for LAN and WAN connectivity, routers, switches and services offered on networks
10. Assist in establishing standards for hardware and software acquisitions, and for operating system and network configurations of devices on the network to ensure a stable communications and computing environment
11. Manage WAN and resource access privileges, profiles, and other user security
12. Produce and maintain a thorough inventory of all hardware and software assets throughout assigned networks while maintaining documentation of WAN infrastructure, and keep backup copies of all router and switch configurations
13. Provide recommendations for resource allocations on assigned WAN(s) and perform capacity management, performance monitoring and reports on network performance; as well as plan for updates, maintenance, and capacity growth
14. Assist Help Desk group as necessary by providing third tier telephone support of network issues and verification that all infrastructure components are functional and operating at prescribed version levels – applying patches and hot fixes as appropriate
15. Assist with testing and troubleshooting SONET, T-1 lines, OC circuits and wide area network infrastructure issues on a daily basis
16. Ability to use packet / protocol analyzers to find and remedy application and network performance issues
17. Comply with policies established by federal and state law, State Board of Education rule, and local board policy
18. Comply with all district and campus routines and regulations
19. Install and maintain network cabling and network peripherals throughout the district
20. Relocate network and server equipment as needed
21. Install and configure software as needed
22. Research, evaluate, recommend, and implement information security solutions, standards, policies and procedures that protect DCS' information assets

23. Identify company-wide information security needs and collaborates with colleagues, service centers and school districts to develop and implement technical solutions for information security
24. Conduct security risk assessments of hardware, software and installed systems and networks
25. Audit systems, event logs, and processes to ensure compliance
26. Assist in the development of appropriate information security incident response policies/procedures, develop internal cyber forensic expertise, and work with systems administrators to protect WSISD computer assets and identify violators
27. Participate in the development and maintenance of company-wide information security policy, standards and procedures for multiple platforms and diverse system environments
28. Configuration and on-going security management of Windows, Novell and UNIX systems
29. Design, implement, and maintain security infrastructure components such as firewalls, VPNs and intrusion detection/prevention systems
30. Maintain accurate records of time and materials required to perform repairs and service
31. Operate tools and equipment according to prescribed safety procedures
32. Follow established safety procedures and techniques to perform job duties including lifting, climbing, carrying, etc.
33. Correct unsafe conditions in the work area and report any conditions that are not correctable to the supervisor immediately
34. Respond to after-hours emergencies as needed. Technology Department works as a team 24x7x5
35. Receive phone calls and assist with end users to resolve problems and utilize software
36. Work cooperatively with end users to detect and resolve hardware problems
37. Process and assign priority to technology-related work orders
38. Identify and resolve network hardware and software problems
39. Install and test network hardware, software, and upgrades
40. Perform routine preventative maintenance on network and server hardware
41. Coordinate and monitor system utilization; recommend improvements as needed
42. Maintain and support a district-wide security system for all systems; ensure network security by maintaining network, Internet and E-mail accounts
43. Oversee tape backups and restore district data as needed
44. Assist with development and implementation of a disaster recovery plan

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.

Signature: _____ **Date:** _____