Job Title: Network, Security, & Audio Visual Engineer

Reports to: Director of Technology & Information Services

Department: Technology

Primary Purpose: Individual will be responsible for the development, implementation, and installation of audiovisual systems. Individual will also provide technical support for all audio, visual, voice, wired/wireless networks, intelligent endpoints and associated infrastructure. Individual will also be responsible for WAN, LAN, and network security design, implementation, support and documentation related to WSISD networks.. Interface with WSISD and customer personnel regarding planning, implementation, and support of data circuits and other WSISD services as appropriate. Position is responsible for evaluation of emerging A/V designs, network infrastructure, and security solutions for all WSISD Schools and provision of recommendations for such. The engineer will develop and implement disaster recovery procedures and maintain related documentation. The position is responsible for design, testing, implementation and maintenance of all network and desktop security software and hardware. The engineer position is responsible for providing supporting documentation and expertise related to A/V equipment, circuits, and network/security infrastructure for the development of budgets and funding.

Secondary Responsibilities: Support districts in the use of Internet Services and Network connectivity. 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. Responsible for Help-Desk support, technology problem evaluation, and escalation. Administer and operate the district's central administrative computer networks. Monitor all district local area networks (LAN) and wide area networks (WAN).

Qualifications:

Education/Certification:

- Bachelor's degree in computer science or electronics and/or certification such as MCSE, CCNA, CCNP, CCIE.
- 2-5 years of experience with A/V industry

Special Knowledge/Skills:

- Cisco Certified Network Administrator and/or Microsoft Certified Engineer
- CTS (Certified Technology Specialist) Certification
- 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
- Proficiency using AutoCAD or other 3D modeling systems
- In-depth knowledge of and experience implementing and supporting server technologies and protocols
- 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

- 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
- 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. Test and troubleshoot audiovisual systems to ensure they work before job completion
7. Install, configure, and deliver audiovisual projects
8. Prepare proposals and designs for audiovisual system integrations and installations
9. Diagnose malfunctions and make adjustments to audiovisual equipment.
10. Provide equipment and technology research. Selection and qualification of equipment and software required for custom integration solutions.
11. Oversee the day-to-day operation of wide area network infrastructure, including hardware/software support, training, special projects, infrastructure backup and recovery, maintenance, troubleshooting, and problem solving
12. Plan, design, and implement data connectivity for local area network (LAN) and wide area network (WAN)
13. Coordinate and assist with special projects including infrastructure upgrades, LAN/WAN hardware/software upgrades, system installation
14. Maintain documentation for LAN and WAN connectivity, routers, switches and services offered on networks
15. 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
16. Manage WAN and LAN resource access privileges, profiles, and other user security
17. 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
18. 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

19. 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
20. Assist with testing and troubleshooting Metro-E, T1, and other transport and MIS circuits and wide area network infrastructure issues on a daily basis
21. Ability to use packet / protocol analyzers to find and remedy application and network performance issues
22. Comply with policies established by federal and state law, State Board of Education rule, and local board policy
23. Comply with all district and campus routines and regulations
24. Install and maintain network cabling and network peripherals throughout the district
25. Relocate network and server equipment as needed
26. Install and configure software as needed
27. Research, evaluate, recommend, and implement information security solutions, standards, policies and procedures that protect WSISD information assets
28. Identify company-wide information security needs and collaborates with colleagues, service centers and school districts to develop and implement technical solutions for information security
29. Conduct security risk assessments of hardware, software and installed systems and networks
30. Audit systems, event logs, and processes to ensure compliance
31. 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
32. Participate in the development and maintenance of company-wide information security policy, standards and procedures for multiple platforms and diverse system environments
33. Configuration and on-going security management of Windows, Novell and UNIX systems
34. Design, implement, and maintain security infrastructure components such as firewalls, VPNs and IDS/IPS
35. Maintain accurate records of time and materials required to perform repairs and service
36. Operate tools and equipment according to prescribed safety procedures
37. Correct unsafe conditions in the work area and report any conditions that are not correctable to the supervisor immediately
38. Respond to after-hours emergencies as needed. Technology Department works as a team 24x7x5
39. Receive phone calls and assist with end users to resolve problems and utilize software
40. Work cooperatively with end users to detect and resolve hardware problems

41. Identify and resolve network hardware and software problems

42. Install and test network hardware, software, and upgrades

43. Perform routine preventative maintenance on A/V equipment, network, and server hardware

44. Monitor network utilization; recommend improvements as needed

45. Maintain and support a district-wide security system for all systems; ensure network security by maintaining network, Internet and E-mail accounts

46. Development and implementation of a network disaster recovery plan

Mental Demands/Physical Demands/Environmental Factors:
Moderate walking, standing, climbing, heavy lifting, carrying, stooping, bending, kneeling and reaching. Work outside and inside, around moving objects, vehicles and machinery with moving parts. Exposed to dampness and humidity, toxic chemicals, exhaust fumes, gasoline and diesel fuel. Maintain emotional control and sound decision-making under stress. Frequent district wide and/or possible statewide travel including occasional prolonged and irregular work hours.

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:** _____