

JOB DESCRIPTION

TITLE NETWORK ANALYST/ENGINEER

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Education/ Experience	Associate's degree or equivalent from a college or technical school; Bachelor's degree preferred; or three years related experience and/or training; or equivalent combination of education and experience. Degree in Management Information Systems, Computer Science, or Electronics Engineering preferred. Three years of experience in an enterprise level Microsoft Active Directory environment installing, configuring, managing and supporting numerous Microsoft systems including but not limited to Active Directory, Exchange, SQL Server, ISA, SoftGrid, Windows Server 2003 and/or 2008. Extensive experience with enterprise class technologies including: clustering all possible Microsoft applications, Asynchronous/Synchronous Replication Technologies, VMware ESX/Virtual Center, Disaster Recovery methodologies. Extensive knowledge of Storage Technologies including Storage Area Networks (SAN) and Enterprise class Storage Arrays strongly preferred. Cisco experience and/or certifications preferred. Experience with a wide variety of routing protocols and configurations in an enterprise environment including Enhanced Interior Gateway Routing Protocol (EIGRP) and RIP V2, as well as Internetwork Operating System (IOS), and Catalyst Operating System (CatOS) preferred.
Language Skills	Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, or governmental regulations. Ability to write reports, business correspondence and procedures manuals. Ability to effectively present information and respond to questions from groups of managers, clients, customers, and the general public.
Mathematical Skills	Ability to calculate figures and amounts such as discounts, interest, commissions, proportions, percentages, area, circumference, and volume. Ability to apply concepts of basic algebra and geometry.
Certificate/License	Microsoft Certified Systems Engineer (MCSE), Microsoft Certified IT Professional (MCITP), Microsoft Certified Master, or Microsoft Certified Architect (MCA) strongly preferred. CISCO Certified Networking Professional (CCNP) preferred. CISCO Storage Certifications preferred.

Reasoning Ability	Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, diagram or schedule form.
Physical Demands	The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee is required to sit, talk and hear; stand and walk; use hands to finger, handle, or feel; reach with hands and arms. The employee occasionally lifts and/or moves up to 100 pounds. Specific vision ability required by this job includes close vision, distance vision, and the ability to adjust focus. The employee shall remain free of any alcohol or non-prescribed controlled substance in the workplace throughout his/her employment by the District.
Work Environment	The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. Employee may occasionally be required to work near mechanical parts with minimal risk for electric shock. The noise level in the work environment is usually moderate.
REPORTS TO	Coordinator of Network Technology

GENERAL RESPONSIBILITIES

1. Supports and maintains the Microsoft environment and VMware virtual infrastructure of the District. This includes thousands of Virtual Servers and over 500 physical servers.
2. Supports and maintains the District's Storage Area Network (SAN) and Storage Arrays.
3. Assists in the support CISCO infrastructure of the district including routers, switches, and all equipment that supplies network connectivity.
4. Monitors the Microsoft and VMware environment for the district and corrects any issues immediately.
5. Maintains the district Wide Area Network (WAN).
6. Assists in Providing complete life-cycle support for all network electronics in the district including design, installation, maintenance and support.
7. Assists in Maintaining the district wireless network connections (both LAN and WAN) and associated equipment.

8. Monitors the CISCO environment for the District and corrects any issues immediately.
9. Determines the best use of existing technology and makes recommendations about the restructuring of systems to best utilize technology and provide the best technology experience for students and staff members.

SPECIFIC RESPONSIBILITIES

1. Designs, installs, maintains, and supports the Microsoft environment and VMware virtual infrastructure of the District.
2. Designs, installs, maintains, and supports the Storage Area Network (SAN) environment of the District.
3. Designs, installs, maintains, and supports Asynchronous / Synchronous data replication of the District.
4. Supports and maintains all District CISCO electronics and related connectivity devices.
5. Maintains and supports the telecommunications services of the district including connections to the Public Switched Telephone Network (PSTN), data circuits (DS3 and T-1).
6. Develops and oversees the implementation of Standard Operating Procedures for the Microsoft, VMware virtual infrastructure, Storage, and Cisco environments of the district.
7. Designs, installs, maintains, and supports all LAN and WAN environments.
8. Maintains all network communications equipment that connects the district network to telecommunications systems and the PSTN. Utilizes a variety of technologies and equipment including but not limited to FRAME Relay, DS3 (Internet and Frame Relay), Primary Rate Interface (PRI), Foreign Exchange Office (FXO), and T1.
9. Designs and supports the routing protocols of the district. This includes EIGRP, RIPv2 and Static Routes. Continually tunes network to optimize routes and ensure convergence times of routes are the fastest possible.
10. Ensures that there is no single point of failure in the district network. Continually looks to improve, optimize, and add resiliency to the network.
11. Develops and implements monitoring software for the district's Microsoft, VMware virtual infrastructure, Storage, and CISCO environment.
12. Provides on-call Network Engineer support for the District network. Will participate in an on-call rotation with other Network Engineers and / or specialists. During on-call times, the Engineer will respond to pages / notifications within 15 minutes.

13. Monitors the district Microsoft, VMware, Storage, and CISCO environment and receives pager notification from monitoring systems in the event of a disruption of service or an outage. Responds to these outages as soon as possible. During critical times (6:30 am – 5:30 pm Monday thru Friday excluding paid district holidays) the analyst responds to the event within 15 minutes. During other times (after 4:30 pm as well as Saturdays, Sundays, and holidays) the analyst will respond within 8 hours (during non-on-call times). In the event that they are not able to respond to the outage or require school access after hours, the analyst will immediately notify the Coordinator of Network Technology.
14. Attempts to maintain goal of 99.999% of district network systems through continuous analysis and proactive action.
15. Supports the district Wireless Wide Area Network including all associated protocols and wireless radio connections to network devices.
16. Supports the district voice over IP network connections to the PSTN over technologies such as PRIs and analog FXO gateways. In addition, supports connections from telecommunications devices to the district gateways and call manager cluster.
17. Supports and responds to network related voice over IP issues and ensures voice network is extremely reliable and resilient.
18. Develops Standard Operating Procedures on all duties relating to this position including best installation practices, monitoring procedures, maintenance procedures, and troubleshooting steps.
19. Enhances and improves knowledge through reading of documentation, as well as training materials. In the event that in-person training is required (either on-site or off-site) this person is available.
20. Provides training and assistance to the Network Technology staff regarding network connectivity or maintenance of all Microsoft, VMware, Storage, and CISCO environment.
21. Provides assistance to staff members regarding servers or any part of the Microsoft, VMware, Storage, and CISCO environment that is considered an advanced issue (not correctable by a System Support Technician).
22. Develops, installs, maintains and supports, the district test environment in which all network configurations are tested before being implemented in the production environment.
23. Implements IOS/Operating System/Firmware upgrades on all patches on all servers and related software applications throughout the district. First, upgrades will be implemented in the test environment to ensure compatibility. After burn-in and certification of the software in the test environment, the analyst will develop best practices for installation, a plan for action, and a schedule for implementation of the upgrade in production.

24. Provides after-hours support of systems including hardware and software upgrades as well as design changes. All network installation, maintenance, upgrades, and design changes that require an outage or may affect the production environment will be performed after normal school hours.
25. Determines the most efficient and economical plan for hardware and software upgrades to accomplish the required goal and provide the best technology experience for students and staff.
26. Acts as a mentor to interns, student workers, and volunteers working in the Technology department.
27. Monitors the district network systems, including resource utilization, suggests areas for improvement, and develops a plan of action for implementation of the improvements.
28. Monitors the district network systems for potential issues and problems, and takes proactive measures, suggests improvements and restructuring to resolve the problems before they occur.
29. Performs other duties as assigned.