



VIRGINIA BEACH CITY PUBLIC SCHOOLS CHARTING THE COURSE

SYSTEMS ENGINEER

GENERAL RESPONSIBILITIES

This multi-faceted position is responsible for designing, planning, implementing, maintaining the division's computer hardware and software, data centers, telecommunications and data networks, multimedia and distance learning systems, and providing customer support in the use of identified systems. Work involves division-wide applications implemented in schools and administrative areas. The position frequently works independently and has considerable latitude for initiative and independent judgment.

ESSENTIAL GENERAL TASKS

(These are intended only as illustrations of the various types of work performed. The omission of specific duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.)

- Evaluate new technology and resources for future implementation in the VBCPS.
- Present and provide technical training for staff in the Department of Technology, as needed.
- Plan and supervise special projects involving team members.
- Advise clients on the necessary technology to achieve their goals.
- Must keep abreast of changing and emerging technology through the use of professional resources to include continuing educations and in-service programs.
- Perform related work as required.

DUTIES ASSIGNED TO SPECIFIC AREAS

Specialization and proficiency is essential in at least one or both of the functional areas listed.

Infrastructure Team

Provide leadership, training and direction to a team of network technicians and administrators responsible for the following:

- Creating and maintaining the enterprise repository of systems documents.
- Acting as the first responder to infrastructure trouble-tickets including but not limited to: LAN/WAN/WLAN switching/routing/firewalls, network protocols, cabling, distance learning equipment, PC, server issues and telephony devices.
- Performing in-depth troubleshooting, installation and maintenance on switches, routers, firewalls, servers, wireless equipment, PCs, servers, universal power supplies and telephony equipment.
- Administering enterprise monitoring software to ensure that all network systems are performing as expected.
- Researching and evaluating new technologies and concepts.
- Overseeing the installation, maintenance and troubleshooting of hardware, software, applications, and equipment, as assigned.
- Installing, configuring and testing video and audio mixers, codecs, cameras, display systems, video application servers and other associated devices.
- Providing routine monitoring of measurement and monitoring tools to insure proper systems operation and identification of failures or service degradation.
- Maintaining systems configuration documentation and backup.
- Creating and maintaining Distance Learning (DL) network maps, IP addressing, and other related documentation.
- Performing system testing and acceptance for DL hardware, software and vendor installed copper and fiber cabling plants.
- Providing emergency repair/replacement of all associated DL devices.

Engineering Team

Provide leadership and direction to team members in the following areas:

- Monitoring and maintenance of data centers, active directory and cloud services for the division.
- Installation and configuration of servers, storage, and hyper-converged systems.
- Providing monitoring of measurement and monitoring tools to ensure proper server, server based services operation, identification of failures, CPU utilization and network performance.
- Providing and performing server and network configuration documentation and data backup.



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- Troubleshooting load balancing hardware, software and configurations.
- Performing routine installation of updates to server, peripheral and networking device firmware, as well as operating system and vendor driver patches.
- Performing emergency repair/replacement of servers, network devices, cabling plants and devices described above.
- Relocation of servers to support routine building renovations and new construction.
- Maintaining systems maps, IP addresses, and other related documentation.
- Researching, designing, implementing, and maintaining systems integrations and Active Directory.
- Maintaining network user/groups/organizational units, directories, access control lists and files.
- Maintaining Active Directory and other software application user accounts / groups / resources and files.
- Preparing comprehensive reports to evaluate system needs and developing network administrator task procedures.
- Verifying / assigning / researching / changing user rights, passwords, password requirements, login scripts, groups and memberships.
- Researching/moving user account and personal directories and files from one user account to another.

KNOWLEDGE, SKILLS AND ABILITIES

Thorough knowledge of microcomputer hardware and software to include: wide area networks, network operating systems, directory integration systems (Microsoft), field systems (local area networks, operating systems and client applications), telecommunication systems and distance learning systems. Must demonstrate an understanding of the job and have the ability to comply with administrative directive and school board policy. Must be able to present information either written and/or orally in a clear, accurate and grammatically correct manner; must be punctual in the submission of accurate reports. Must have good communication and human relation skills, and be respectful of the confidential nature of information. Must have the ability to work effectively with school officials, community groups, and other staff members. Must demonstrate good work habits to include punctual and regular attendance, and efficient use of time.

EDUCATION AND EXPERIENCE

Bachelors of Science degree required. Industry certifications and/or training in related field such as Network Administrator or Network Engineering preferred. Considerable experience in related field as a computer, network, telecommunications and/or broadcast maintenance technician, required.

A comparable amount of training and experience may be substituted for the minimum qualifications.

PHYSICAL REQUIREMENTS

Significant standing, walking, moving, climbing, carrying, bending, kneeling, crawling, reaching, handling, pushing, and pulling. Ability to lift 50 lbs.

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential tasks.

SPECIAL REQUIREMENTS

- Possession of a valid driver's license and reliable transportation to carry out site visits as assigned.
- Specialization and proficiency in one or more of the identified specific job function areas is essential and require the following knowledge base:

Infrastructure Team –Expert level knowledge of WLAN/WAN/LAN networking, Vendor hardware (wired and managed wireless), Network Security Systems, Video Teleconferencing systems, Network Protocols, OSI model. Proficient with Active Directory and VOIP Systems.

Engineering Team – Expert level knowledge Windows Server, Active Directory, G Suite, and Virtualization. Proficient in networking, load balancing, and cloud services.