NETWORK ENGINEER III (BOCES # 2)

DISTINGUISHING FEATURES OF THE CLASS: Under supervision of the Network Technology Consultant, or other higher level technical employee, an incumbent of this position, located in the Lower Hudson Valley Regional Information Center (LHRIC) of Southern Westchester BOCES, is responsible for managing projects and providing technical support and guidance to team members in resolving complex and high priority issues involving troubleshooting and support of routers, access switches, wireless systems, voice over IP, and other networking devices. This is the highest level of the Network Engineer series and the incumbent has managerial responsibility over project planning and execution; process development, maintenance and improvement; and oversight and guidance to subordinate staff on complex technical issues. The Network Engineer III assesses existing district networks and researches new network technologies in order to recommend and implement improved and enhanced service delivery to local school districts. Supervision of Network Engineers I and II, as well as other subordinate technical staff, is a responsibility of this position. Does related work as required.

EXAMPLES OF WORK: (Illustrative Only)

Responsible for managing and providing support to team members on network related incidents and problems that have been logged into Enterprise Service Desk software; provides guidance as necessary to lower level technical staff on how to resolve the problem;

Functions as point of contact for all team members to escalate unresolved and high priority issues related to networks;

Performs root cause analysis and provides oversight and assistance as necessary on issues related to enterprise wired, wireless and voice over IP networks;

Responsible for process development, maintenance, adoption improvement and resource management;

Designs and develops deployment strategies for enterprise wired, wireless and voice over IP networks;

Audits and assesses existing district systems, network storage and hypervisors and makes recommendations for improvement and enhancement;

Researches new networking technologies to develop and enhance existing services to local school districts;

Works with Project Managers to plan out projects, including initiation and execution;

Oversees and advises technical staff on the installation of enterprise wired, wireless, and voice over IP equipment;

Oversees the work of contract and vendor supplied personnel engaged in the installation, maintenance and repair of network hardware and software;

Oversees and performs the setup, installation, repair, maintenance, and retirement of network equipment that may weigh as much as 50 pounds;

EXAMPLES OF WORK (Illustrative Only) (cont'd.):

Informs team and supervisor as to the status of all operational issues and any necessary changes according to department change management process;

Responsible for selection of tools and applications that operate on the "enterprise" level, affecting consortium-wide operations;

Oversees lifecycle management of network and associated equipment including inventory, asset identification, documentation and asset retirement;

Oversees the creation and maintenance of network documentation through the use of industry standard productivity suites;

Uses computer applications or other automated systems such as spreadsheets, word processing, Visio, calendar, email and network management software in performing work assignments.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES: Thorough knowledge of the components, operation, maintenance, configuration and repair of network equipment; thorough knowledge of network communications protocols and networking concepts; thorough knowledge of TCP/IP addressing and IP subnetting; thorough knowledge of wireless technologies and industry standards; thorough knowledge of network access control; thorough knowledge of network monitoring and management software; thorough knowledge of network access control; thorough knowledge of network segmentation, security and broadcast management; thorough knowledge of data communications and basic electronics terminology; thorough knowledge of basic computer communications software and hardware test equipment; working knowledge of Software Defined Networking (SDN) technology; skill and dexterity in the use of tools; troubleshooting skill; ability to plan, assign and review the work of others; ability to provide guidance and oversight to less senior technical titles; ability to troubleshoot complex Level 2 & 3 networking issues and perform root cause analysis; ability to communicate with outside vendors on equipment and related problems; ability to communicate clearly, both orally and in writing; ability to think logically; ability to comprehend moderately complex technical materials and understand basic wiring diagrams; ability to see all colors of wire for connection purposes; ability to move equipment and supplies weighing up to 50 pounds; ability to understand and carry out written and oral directions; ability to effectively use computer applications such as spreadsheets, word processing, Visio, calendar, email and network management software; ability to read, write, speak, understand and communicate in English sufficiently to perform the essential duties of the position; good judgment; initiative; resourcefulness; reliability; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: A high school or equivalency diploma and either: (a) a Bachelor's Degree* in Information Technology or a closely related field and three (3) years of experience where the primary function of the position was the installation, operation, maintenance and problem diagnosis of network equipment including routers, switches and network communications protocols; or (b) eight (8) years of experience as described in (a).

SUBSTITUTION #1: Satisfactory completion of 30 college credits* may be substituted on a year for year basis for up to four (4) years of the required experience.

SUBSTITUTION #2:
Current CCNA (Cisco Certified Network Associate) Routing and Switching or CCNA Wireless certification may be substituted for six (6) months of the required experience.
Current CCNP (Cisco Certified Network Professional) Routing and Switching or CCNP Wireless certification may be substituted for eighteen (18) months of the required experience.
Current CCIE (Cisco Certified Internetwork Expert) Routing and Switching or CCIE Wireless certification may be substituted for four (4) years of the required experience.

*SPECIAL NOTE: Education beyond the secondary level must be from an institution recognized or accredited by the Board of Regents of the New York State Department of Education as a post-secondary, degree-granting institution.

SPECIAL REQUIREMENT: Possession of a valid license issued by the New York State Department of Motor Vehicles appropriate for the vehicle to be operated. The appointing authority is responsible for verifying and ensuring that the candidate meets these conditions at time of appointment and throughout the course of employment.

SPECIAL REQUIREMENT FOR APPOINTMENT IN SCHOOL DISTRICTS: In accordance with the Safe Schools Against Violence in Education (SAVE) legislation, Chapter 180 of the Laws of 2000, and by the Regulations of the Commissioner of Education, candidates for appointment in school districts must obtain clearance for employment from the State Education Department prior to employment based upon a fingerprint and criminal history background check.