

## **NETWORK ENGINEER**

**DISTINGUISHING FEATURES OF THE CLASS:** This is a technical position responsible for the overall design and engineering of voice, video and data systems. The work involves evaluating district/enterprise needs, including existing systems, and provides recommendations regarding associated cost estimates, technical specifications and engineering reports. The incumbent acts as the voice and data network project lead, providing consultation and guidance to all areas. The employee reports directly to and works under the general supervision of management. Does related work as required.

### **TYPICAL WORK ACTIVITIES:**

Designs and develops voice and data network plans for network upgrades and expansions in accordance with district/enterprise objectives;

Designs and implements complex voice and data systems and network configurations, including hardware and software technology, site locations, business continuity, disaster recovery, and integration of technologies; develops system design documentation and related materials;

Reviews analyses and technical feasibility to develop voice and data network deployment strategies;

Assesses and reviews voice and data network growth forecasts and ensures that district needs are translated into network capacity requirements;

Consults with vendors, distributors and users regarding the purchase of network hardware and software related to voice, video and data systems;

Responds to requests for proposals, develops cost estimates, project budgets, and resource requirements;

Plans, coordinates, and implements security and back-up measures to safeguard information in computer files against accidental or unauthorized modification, destruction or disclosure;

Acts as part of the communications and connectivity team, assessing the impact of changing needs on voice and data networks;

Provides technical advice and assistance to individuals and groups using voice, video and data systems in the identification and solution of technology problems.

**FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

Thorough knowledge of LAN and WAN network systems including those used for voice, video and data systems;  
Good knowledge of wireless local and wide area network administration;  
Good knowledge of local and wide area network administration;  
Good knowledge of budgetary and procurement processes;  
Ability to plan, organize, coordinate, administer and evaluate the effectiveness of program plans and provision of services related to voice, video and data systems;  
Ability to design, install, update and maintain LAN and WAN networks including those used for voice, video and data systems;  
Ability to establish and maintain effective working relationships;  
Ability to train others in the configuration, operation, and configuration of voice, video and data systems;  
Ability to design, engineer, and implement voice, video and data systems;  
Ability to analyze voice, video and data system problems with the ability to recommend and implement workable solutions;  
Ability to communicate effectively both orally and in writing;  
Ability to train and direct the work of others;  
Ability to write proposals and cost estimates;  
Ability to train others in voice, video and data systems;  
Organizational skills.

**MINIMUM QUALIFICATIONS:**

A) Graduation from a regionally accredited or New York State registered college or university with a Bachelor's degree in network administration, telecommunication engineering, computer science, computer technology, data processing, management information systems, information resource management, or related field, **AND:**

Two (2) years experience in the installation of microcomputer hardware and software and the configuration and administration of local and wide area networks, including the design and engineering of Local Area/Wide Area Networks (LAN/WAN), telecommunication systems, telephone systems, audio/visual systems, and/or server, storage and/or telephony; OR

- B) Graduation from a regionally accredited or New York State registered two-year college with an Associate's degree in network administration, telecommunication engineering, computer science, computer technology, data processing, management information systems, information resource management, or related field, **AND:**

Four (4) years experience involving the installation of micro-computer hardware and software and the configuration and administration of local and wide area networks, two (2) years of which must have included the design and engineering of Local Area/Wide Area Networks (LAN/WAN), telecommunication systems, telephone systems, audio/visual/video systems, and/or server, storage and/or telephony; OR

- C) Six (6) years of experience involving the installation of network and/or telephony hardware and software and the configuration and administration of local and wide area networks, two (2) years of which must have included the design and engineering of Local Area/Wide Area Networks (LAN/WAN), telecommunication systems, telephone systems, audio/visual/video systems, and/or server, storage or workstation management; OR

- D) An equivalent combination of training and experience as defined by the limits of A), B), and C) above.

**SPECIAL REQUIREMENT:** Possession of a valid license to operate a motor vehicle in the State of New York will be required at time of appointment and maintain same while in the title.

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COMPETITIVE