

Jurisdictional Class: Competitive
Adopted: February 11, 1998
Revised: July 30, 2010

SENIOR NETWORK ENGINEER

DISTINGUISHING FEATURES OF THE CLASS: This is a highly technical position involved in the design, development, maintenance, repair, and operation of complex local and wide area computer networks. This class differs from the lower level by the level of independence exercised in the performance of work assignments and the complexity of those assignments. Work is performed under the general supervision of the Network Administrator as well as the Director of Information Technology with considerable leeway given for the exercise of independent judgment in carrying out the details of the work. Supervision may be exercised over subordinate employees engaged in computer or network operations. The incumbent does related work as required.

TYPICAL WORK ACTIVITIES: (Illustrative only)

Monitors network health and performance optimization and recommends system upgrades as needed and participates in disaster recovery planning;
Assists the Network Administrator in the administration of network systems, subsystems, resources, and user profiles;
Assists in the development of systems specifications, testing and benchmarking criteria, determination of milestones, and implementation guidelines;
Responsible for creating detailed design specifications for a wide range of complex, non-standard configurations that typically impact the entire municipal wide-area network;
Develops and implements security standards and protocols to ensure system integrity;
Analyzes and designs network applications and designs detailed network diagrams;
Modifies programs by revising instructions or altering the sequence of operations;
Debugs new and modifies existing programs to ensure completion according to predetermined requirement;
Researches and evaluates new computer hardware, software, and network products and prepares quotes for the purchase of computer hardware and software;
Works with contract and vendor supplied personnel engaged in the installation, maintenance, and repair of network hardware and software;
Ensures that appropriate number of users are assigned software based on software licensing agreements;
Assigns work tasks, provides technical and procedural methods, reviews work for completeness and accuracy of less experienced programming staff;
Trains project staff in intricate system design, develops curriculum for in-house training of end-users, and coordinates and conducts computer workshops for users;
Establishes security profiles for users, assigns, deletes, and controls security passwords to assure network integrity;
Maintains wide-area connections with remote sites, internet, and other such information providers;
Troubleshoots hardware and software network problems and supervises installation and repair of workstations and peripherals;
Configures desktop environment through network policies;
Prepares verbal and written reports as directed.

Senior Network Engineer

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES & PERSONAL CHARACTERISTICS:

Thorough knowledge of local and wide area network systems;

Thorough knowledge of network operating systems, network hardware, client operating systems, and wiring topologies;

Good knowledge of systems programming techniques, systems analysis, applications programming techniques, and concepts;

Good knowledge of computers and peripheral equipment, communications protocols, and component wiring structure;

Good knowledge of modern office methods and techniques;

Ability to write complex oral and written instructions;

Sound judgment.

MINIMUM QUALIFICATIONS:

(a) Graduation from a regionally accredited or New York State registered college or university with a Bachelor's Degree in computer science, computer technology, data processing, management information systems, information resource management, or related field and three (3) years of experience involving the configuration, installation, and maintenance of networks; or

(b) Graduation from a regionally accredited or New York State registered college or university with an Associate Degree in computer science, computer technology, data processing, management information systems, information resource management, or related field and five (5) years of experience involving the configuration, installation, and maintenance of networks; or

(c) An equivalent combination of training and experiences as defined by the limits of (a) and (b) above.