

INFORMATION SYSTEMS SPECIALIST 4**Nature of Work**

Under administrative direction, performs the most advanced professional/technical work in a specialist role maintaining a complex network system. Positions allocated to this class are acknowledged authorities on a broad range of network developmental/implementation issues. Incumbents are expected to be the primary technical resource in helping lower level personnel in identifying and resolving technical issues emanating from a network environment. Positions may work with interagency committees and advisory groups in developing standards and strategic planning documents governing information network infrastructure direction. Frequently deals with implementation and design issues in situations of unusual difficulty or in scenarios where time and resource loss are critical and network recovery is of primary importance. An irregular work schedule will be required with this position dictating periodic after hours or weekend work in order to meet both preventative and problem resolution issues as they relate to maintaining a complex network system. Performs related work as required.

Distinguishing Characteristics

At this level, the incumbent will serve as a technical advisor throughout their department on network issues. May serve on high level committees/advisory groups in setting standards and resolving complex network issues throughout the state. Serves as liaison to management/CIO's in working with vendors and outside users to ensure network directions and solutions are both compatible and efficient. This position may exercise supervisory and managerial responsibilities over teams of network professionals working with hardware, software and communication networks (LAN/WANS). Performs the most advanced professional/technical work associated with bridging user requirements with the capabilities of an information system.

Examples of Work

Applies the knowledge of principles, practices and procedures required to develop/design and implement information system-based solution in a LAN/WAN environment.

Reviews present and prospective software/hardware methodologies in order to keep agency practices current with advancing technology.

Utilizes extensive knowledge and experience in project control techniques including cost/time estimating, resource scheduling, and solution delivery.

INFORMATION SYSTEMS SPECIALIST 4 (CONT'D)**Examples of Work (cont'd)**

Applies knowledge of design techniques and topology in order to enhance and improve network efficiency and problem determination.

Be able to implement IP addressing schemes in a switched environment.

Tests and validates information systems.

Extracts logical commonalities among classes of network problems to accelerate problem identification and resolution.

Maintains effective working relationship with both administrative and technical staff.

Coordinate and/or delegate activities of staff members in support of complex networks-LANS/WANS.

Helps staff in the receipt and reviewing of technical bids to ensure compliance with minimum specification as well as compatibility with existing network.

Works with CTO, WVSUN, IS&C staff and other state agencies in developing strategic plans governing future network design and support issues.

Provides direction in handling end-users support request via telephone, help desk and site visits.

Operates diagnostic and monitoring equipment and trains subordinate staff in use of this equipment.

Provides users with site analysis to ensure, that both they and any contracted vendors, will meet environmental and system requirements.

Designs and implements wiring plans for computer, network and telecommunication equipment.

Calculates load requirements and prepares specification and installation plans.

Reviews and approves training modules and instructional materials to ensure training addresses skill requirements.

Maintain current knowledge and skill level by attending training sessions and researching technical literature.

Maintains technical expertise on hardware, software, network configuration, or peripherals using various methods of learning: reviewing technical information, attending training sessions, using self-paced learning, working with other staff.

Perform installation and configuration on both hardware and software and overseeing subordinates who are learning to perform these tasks.

Evaluate new computer features and devices, developing and reviewing basic specifications to keep current with industry advances and new technology.

INFORMATION SYSTEMS SPECIALIST 4 (CONT'D)**Examples of Work (cont'd)**

Advise management on best solutions to meeting state and federal mandates and requirements impacting the design and maintenance of a complex network.

Work with IS&C and state purchasing in the development of statewide contracts. This support might take the form of specification development to the evaluation and testing of vendor solutions.

Knowledge, Skills and Abilities

Knowledge of networking, information processing and communication concepts and standards.

Knowledge of tools and techniques as applied to writing, modifying, and documenting systems.

Knowledge of advanced principles of network design and testing procedures.

Knowledge of data communications, theory, protocols, industry standards and terminology.

Knowledge of electronics and electricity, and communications technology and terminology.

Ability to analyze and evaluate work environment, computer systems, user requirements and information processes.

Ability to clearly report activities and identify potential problem areas to top management.

Ability to compile information and interpret technical information for non-technical staff in a user friendly format.

Ability to extract logical commonalities among classes of problems.

Ability to develop/design/implement information system based solutions in a wide range of problem domains.

Ability to diagnose and resolve technical problems involved in supporting and maintaining a highly complex network environment.

Ability to maintain an effective working environment with both peers as well as top management and the user community.

Ability to be able to communicate clearly, both orally and in writing.

Ability to make decisions and use independent judgement in resolving technical issues associated with maintaining a complex information network.

Minimum Qualifications

TRAINING: Bachelor's degree from an accredited four-year college or university.

INFORMATION SYSTEMS SPECIALIST 4 (CONT'D)**Minimum Qualifications (cont'd)**

SUBSTITUTION: Four years of full-time or equivalent part-time personal computer or server LAN/WANT paid experience may be substituted for the required training on a year for year basis.

OR

Three years of full-time or equivalent part-time paid experience as a Information System Specialist 3 in the State of West Virginia.

OR

Successful completion of twelve (12) credit hours or the equivalent industry recognized authorized/certified LAN/WAN administration may be substituted for one year of training.

OR

Network service/support and/or network technologies training may substitute for one year of the required training requirement.

EXPERIENCE: Nine years of full-time or equivalent part-time paid experience in information processing field, of which; two years of experience must be in: local area network administration and support or networking standalone/mainframe, minicomputer, and LAN/WAN connectivity; or of which two years of experience must be in installation of hardware and software, support, and or training.

SUBSTITUTION: Twelve (12) hours of computer science or data processing may substitute for one year of information system experience excluding PC and LAN administration support.

Established: 11/15/01
Effective: 1/1/02