

**INFORMATION SYSTEMS SPECIALIST 3****Nature of Work**

Under limited supervision, performs advanced professional/technical consulting tasks in designing, selecting, installing, implementing and maintaining complex network system office automation equipment, software and communications. Depending upon the assignment, develops course materials and curriculum for computer literacy and software classes. Trains users and support staff in basic operations and applications. Evaluates and documents system performance and compatibility. Specializes in broad based complex network installations (multi-platform, multi-site, multi-applications systems). Works on projects involving connectivity between the various locations and systems and projects involving connectivity to various federal, state or other external systems. May coordinate and/or lead day-to-day activities of staff members engaged in information system activities, including trouble-shooting various systems and networks, consulting, user and operations support, planning and procurement activities. Performs related work as required.

**Distinguishing Characteristics**

This is an advanced level technical and/or lead work position where familiarity with the department and a recognized specialty allows the incumbent significant latitude in making recommendations to management relating to technical matters and in setting agency-wide standards for hardware, software and communication networks. May provide guidance to lower level technical specialists.

**Examples of Work**

Coordinates the activities involved in meeting implementation objectives with management, users, and Information Services and Communications Division (IS&C) in determining user requirements, configuring systems based on those requirements and other pertinent factors, planning for installation requirements, preparing justification, working closely with IS&C, posting bids based on prepared specifications, receiving and reviewing bids for compliance with minimum specification, preparing final purchase documents for purchase, reviewing final recommendations with management of appropriate office.

Coordinates activities of staff members in support of complex networks - Local/Wide Area Networks, mid-range systems, PC and mainframe operations.

Provides activity, status and feasibility reports to management.

## INFORMATION SYSTEMS SPECIALIST 3 (CONT'D)

**Examples of Work (cont'd)**

- May train subordinates in hardware and communications protocols.
- Monitor system(s) operations through field staff reports and by on-site visits via management software systems and hardware monitoring.
- Supports end-users via telephone and/or site visit regarding communication, printer, security, applications, and/or general systems(s) problems on LAN to LAN, LAN to Wide Area Networks, (for example IS&C's mainframe, federal systems), internet access, private time-sharing computer services, or external dial-up/dial-in access to various systems.
- Participates or individually conducts user needs analysis; meets with users to determine environment and system requirements; discusses hardware/software/connectivity options.
- Operates diagnostic and/or monitoring equipment/software to identify problems and takes appropriate corrective action, either by repairing unit or contacting appropriate vendor.
- Reviews requests for hardware and software for compatibility with established systems, assigning research to subordinates.
- Meets with users to discuss automation plans, technology and networking plans, provides system and related costs analyses to planning staff, discusses alternatives to arrive at cost and time effective solutions to user needs.
- Writes major procurement documents and related justifications, to obtain competitive bids, receives and reviews bid for compliance with specifications and cost effectiveness, makes recommendation to user contact as to award and/or prepares purchase documents for process.
- Designs wiring plans for computer, network and telecommunications, installing and testing cabling and equipment (including installation of upgrade cards, memory and other devices to improve existing equipment as well as assembly, initial testing and final installation of new computer equipment and related devices), planning, installation, monitoring and maintenance of LAN and Wide Area Network (WAN).
- Calculates load requirements, prepares specifications and develops installation plans and installs Uninterruptable Power Supplies (UPS) units.
- Plans, conducts or assists in group and one-on-one training of computer applications and operations software and proper use of hardware.
- Develops training modules and instructional materials.

**INFORMATION SYSTEMS SPECIALIST 3 (CONT'D)****Examples of Work (cont'd)**

Maintains current knowledge level by researching technical literature and attending classes/seminars, contact technical staff in other state, federal and private agencies for information.

Installs and configures hardware and software.

Evaluates new computer features and devices, revises basic specifications to keep current with industry advances and ensures compliance with state and federal standards and requirements and makes recommendations to superiors for purchase.

**Knowledge, Skills and Abilities**

Knowledge of capabilities and limitations of computers and related devices.

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

Knowledge of PC, mini and mainframe operating systems.

Knowledge of computer hardware, software and its terminology.

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 environments, computer systems, user requirements and information processes.

Ability to evaluate complex information systems and understand their structure, component parts and inter-relations.

Ability to diagnose and resolve technical problems, which may be of a highly complex nature.

Ability to establish and maintain effective working relationships with subordinates, superiors, user community.

Ability to clearly report activities and identify potential problem areas to manager.

Ability to communicate clearly, both orally and in writing.

Ability to analyze information problems and apply technical information solutions.

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

**Minimum Qualifications**

**Training:** Bachelor's degree from an accredited college or university.

## INFORMATION SYSTEMS SPECIALIST 3 (CONT'D)

**Minimum Qualifications (cont'd)**

**Substitution:** Three years of full-time or equivalent part-time paid personal computer or server support experience may be substituted for the required training. Successful completion of twelve credit hours or the equivalent thereof of industry recognized authorized/certified LAN administration, network service/support and/or network technologies training may substitute for one year of the required training.

**Experience:** Five years of full-time or equivalent part-time paid experience in information processing field, one year of which is experience in local area network administration support and/or networking of standalone, mainframe, minicomputer, and LAN connected microcomputers and two years of which is experience in installation of hardware and software, support and/or training.

**Substitution:** Twelve hours of computer science or data processing may substitute for one year of information processing experience excluding PC and LAN administration support.

Established: 3/21/96  
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