

DESCRIPTION: Under limited supervision, independently performs a variety of work related to the planning, design, and utilization of an enterprise-wide voice, data, wireless or video State government/statewide network. Work involves analyzing, design, configuration, deployment, testing and troubleshooting the network. May provide evaluation of vendor products, and coordinates short and long-range network solutions and architecture, ensures network standards are met. The State Network Analyst/Senior is responsible to make standards known, interpret standards, and ensure that network standards are met; May supervise or lead other technical or analyst workers as needed; performs related work as assigned.

DISTINGUISHING CHARACTERISTICS:

This is the third classification level of network services class series for positions assigned to the State Network section of the Office of the Chief Information Officer ETC, or at other agencies that perform technical work on a statewide communications network. Positions in this class serve as an advanced expert analyst for a portion of a State government/statewide voice, data, wireless or video communication networks, serves as a technical expert on system operations and issues, and independently performs difficult planning, development, coordination, and operational work. Positions will consult and advise state government entities and political subdivisions on network issues. Positions will design and implement communication systems, evaluate and select equipment and software, and supervise installation of expansions. The State Network Analyst/Senior is responsible to make standards known, interpret standards, and ensure that standard compliance exists. Positions in this class may supervise or lead other analysts or technicians.

EXAMPLES OF WORK: (A position may not be assigned all the duties listed, nor do the listed examples include all the duties that may be assigned.)

Network Support

- Manages and monitors network upgrade installations and maintenance to ensure continued access to state facilities. Meets with vendors for product analysis. Performs on-site station reviews of network components. Consults with clients by answering technical, operational or policy questions. Makes recommendations to resolve customer concerns. Arranges maintenance services, troubleshoots problems and oversees outside contractors. Coordinates activities with vendors, clients, and contractors.
- Installs and reconfigures state-wide communications systems to optimize network performance. Diagnoses and resolves network and system problems. Resolves problems and takes actions to solve short-term problems while considering long-term and state-wide network impact.
- Monitors, maintains, and oversees communication services and facilities for state agencies.
- Plans, designs, schedules, and coordinates local and remote site preparation for equipment installation. Participates in site reviews. Conducts follow-up reviews to ensure work performed is in compliance with schedules and/or specifications.
- Coordinates installation and maintenance of *communications equipment**, facilities, and services.

System Administration

- Serves as a consultant and/or troubleshooter to clients in addressing their operational and technical needs. Answers questions regarding communications problems or network capabilities. Trains clients on proper use and operation of new or upgraded products. Consults with clients to determine system needs and interests. Provides technical support to other agency network administrators.

A07923 – STATE NETWORK ANALYST/SENIOR (continued)

- Develops management procedures for installation of *communications equipment**.
- Consults, implements and explains policies, procedures and standards for *communications equipment** installation projects or specific components (e.g. wiring standards, communications protocol, industry standards for voice, video, cable, and data) in compliance with those used for all state facilities.
- Schedules work of staff and contractors for *communications equipment** installation projects or specific components.
- Monitors work performed to ensure compliance with federal and state regulatory and statutory requirements.
- Manages database of system inventory.

Network System Design and Implementation

- Researches, designs, and specifies communication network/system facilities and services.
- Oversees the testing and implementation of communication networks/systems.
- Provides technical assistance to customers, vendors, and the general public.
- Advises and consults with agency, state, and federal management officials and staff on communication networks/systems regarding technical and security issues; on policies, regulations, and standards; and on design, performance, and compatibility requirements.
- Completes communication network/system reviews, equipment reviews, long range planning studies, and documentation.
- Prepares plans and technical specifications for enterprise-level state government/state-wide and/or regional communication networks/systems.
- Develops communication network/system plans and installations for such processes as technology convergence, radio frequency analysis, management of spectrum coordination, data communications topologies, voice communications transports, and video, wide-area, and local-area networks.

Procurement

- Calculates network/system component purchase prices for customers.
- Participates in the drafting of bid specifications and requests for proposals, evaluates bids received, and reviews purchase orders being processed.
- Authorizes and processes purchase orders and payment of invoices for various *communications equipment**, supplies and materials.

Research

- Researches communications technologies to ensure rapid and error-free movement of voice, data, wireless or video information on the communications network/system.
- Reviews vendor equipment literature and makes recommendations concerning uses and purchases.
- Attends in-service training programs, technical/professional workshops/conferences, reviews/researches technical journals/books/literature, and shares information with peers and other technical experts to learn/keep informed about modified procedures or techniques and new advances in a field of study and to identify available best practices, technologies, methodologies, and equipment pertinent to work assigned.

Training

- Provides formal technical training to customers and agency staff concerning the use of *communications equipment**.
- Provides direction, training, and technical assistance to coworkers and agency staff.

General

- Manages the infrastructure of a share communications network/system and implements major communications projects.
- Participates in the setting of rates for communications services on a cost recovery basis.
- Plans and maintains utilization and communications to other systems. Evaluates, selects and implements new transmission protocols for voice, video, and data networks.
- May supervise or leads other technical or analyst workers.

**Network/System Equipment such as: Centrex, PBX, switches, routers, hubs, load balancers, firewalls, intrusion detection devices, base stations, towers, pagers, antenna systems, modems, CSU/DSU's, cellular phones, video conferencing, cabling systems, closed circuit television, SMDR units, power supplies (battery backup units – UPS's) ACD, UCD, CTI, call accounting systems, call center systems, voice mail systems, voice processing system, and related communication network and computer hardware/software; and other equipment and tools such as vehicles/vans, soldering tools, hammer drills, tape measures, screwdrivers, pliers, crimpers.*

***Network/System Diagnostic Equipment such as: network assessment and encryption software, computer terminal, optical time domain reflectometer, microtest ring scanner, sumitomo fusion splicer, network devices link tester, panduit label maker, telephone test set, tone generators, levels punch down tool, tone tracers, installer's analog and digital test sets, volt/OHM meters, protocol analyzers, bit error rate testers.*

KNOWLEDGE, SKILLS, AND ABILITIES REQUIRED: (These are needed to perform the work assigned.)

Knowledge of: the design and operational requirements of establishing and maintaining communications systems for the state; hardware and software infrastructure and other operational components; applicable standards and procedures regarding communication network/system installation and related documentation

Ability to: conduct studies of communications systems or components and make recommendations; develop and implement operational and training procedures concerning communications systems. Supervise/lead and train other technical or analytical workers; develop and evaluate employees; plan, install, diagnose, and repair communications equipment and systems used by the agency; interpret and apply the laws and regulations of the communications industry; plan, schedule, and coordinate work assignments of other workers.

MINIMUM QUALIFICATIONS: (Applicants will be screened for possession of these qualifications. Applicants who need accommodation in the selection process should request this in advance.)

Associate's or other similar two year technical degree in computer engineering/science, communications/electronic equipment, or related discipline of study AND two years work experience performing the analysis of network/electronics equipment and preparing related technical recommendations; two additional years of applicable work experience can be substituted for a degree.

SPECIAL NOTES:

State agencies are responsible to evaluate each of their positions to determine their individual overtime eligibility status as required by the Fair Labor Standards Act (FLSA).