

Definition This is advanced technical work in the configuration, operation, maintenance and installation of data communications systems.

An employee in this class performs a variety of technical duties in the independent configuration, installation, operation and maintenance of data communications equipment and associated peripheral devices that support the data processing operations of agencies with independent networks; or serves as a shift leader of a unit involved in technical data communications functions supporting the operation of statewide data communications network. Independent advanced technical functions involve planning, designing and configuring the agencies data communications systems and developing procedures for their operation and maintenance. Shift-leader functions involve: assigning work to lower level technicians in the shift; setting unit priorities; providing guidance and direction in the installation, testing, and operation of equipment; directing troubleshooting of major network breakdowns; and assisting in the development of network operational and testing procedures. The work includes working with user groups in identifying communications system malfunctions; coordinating, scheduling and/or conducting repairs of faulty equipment; and maintaining historical records of configurations, installations, system malfunctions, faults isolated, repairs scheduled and resolved. Supervision is exercised by a technical or administrative superior who reviews work for adherence to standards and results achieved.

Examples of Work: Participates in the development of formal policies and written procedures for access to and operations of data communications system.

Participates in the preparation of technical specifications for the purchase and installation of new data communications systems, equipment and associated peripheral devices.

Serves as shift-leader over a unit of Communications Operations Specialists by making assignments, resolving major network or system breakdowns, monitoring network operation and performing data communication system maintenance.

Installs new communications equipment or monitor contractors activities during the installation of new equipment to assure compliance to specifications and to detect unanticipated problems.

Conducts acceptance tests to insure new data communications equipment functions properly and is compatible with existing systems and other operations.

Sets up and configures cabling schemes for in-house data communications networks; determines equipment and component needs to insure system

compatibility; and installs cables, wires, communications equipment and peripheral devices.

Sets up, operates, monitors and/or controls the functioning of front end processors, communication switches, multiplexors and associated data communication equipment.

Conducts tests of data communication equipment, medias, and associated peripheral components to: isolate data transmission malfunctions; test quality of data transmission medias; measure voltage current, resistance, and continuity of lines and components; and to analyze circuit functioning.

Switches data transmission signals to alternate modes when primary circuits malfunction in order to maximize continuity and access to available systems.

Installs circuits, coaxial cable, twisted pair wires, modems, visual display terminals and other peripheral devices.

Maintaining manual and/or automated inventory records of data communications equipment and parts.

Establishes and maintains computer stored records to document system configuration interruption of services to users; network or equipment failure; requests for service to equipment and/or lines; circuit utilization and activity, and requests of equipment utilization.

Receives call from data communications system users on equipment malfunctions; identifies the nature of the problem; explains the appropriate course of action to user, and/or contacts the appropriate contractor to resolve the problem, and/or conducts repairs.

Utilizes software traces and/or electronic test equipment such as data scopes, break our boxes, ohmmeters, oscilloscopes, and similar test equipment to isolate malfunctions.

Performs related duties as required.

Required Knowledge, Skills and Abilities: Knowledge of the methods and techniques used in the installation, operation, testing and repair of data communications systems and equipment.

Knowledge of data communications terminology and the design configuration of data communication systems.

Knowledge of basic computer operations techniques and equipment.

Ability to analyze equipment and systems malfunctions identified by users through telephone contact and initiate corrective measures.

Ability to operate electronic test equipment used in testing of data communications equipment and systems.

Ability to analyze test equipment output.

Ability to direct the work of technical personnel involved in the installation, testing, maintenance or operations of data communication equipment.

Ability to read, interpret and apply technical data communications manuals, procedures and specifications.

Ability to operate video display terminals.

Ability to read video display terminals and computer printouts.

Ability to communicate effectively, orally and in writing.

Ability to climb ladders to a height of ten feet.

Ability to lift up to forty pounds.

Minimum Experience and Training: One year as a Communications Operations Specialist 1;

OR

Four years of experience in the installation, repair, maintenance, and testing of data communications systems.

Post-high school training in electronic or communications engineering; or computer or electronic technology may be substituted on a year-for-year basis for up to two years of the required experience.