



INFORMATION TECHNOLOGY ANALYST I/II - TELECOMMUNICATIONS

DEFINITION

Under general supervision, install, maintain, modify, and repair telecommunications equipment and systems including radio or telephone equipment and systems depending upon assignment, as well as related microwave, voice, and data terminals, switching and control systems, and audio and video equipment.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision or direction from assigned supervisory or management personnel. Exercises no direct supervision over staff but may lead the work of staff on assigned projects.

CLASS CHARACTERISTICS

Information Technology Analyst I – Telecommunications: This is the entry-level class in the IT Analyst - Telecommunications series. This class is distinguished from the journey level by the performance of the more routine tasks and duties assigned to positions within this series. Employees at this level are not expected to perform with the same independence of direction and judgment on matters allocated to the journey level. Employees work under immediate supervision while learning job tasks.

Information Technology Analyst II – Telecommunications: This is the full journey-level class within the IT Analyst - Telecommunications series. This class is distinguished from the IT Analyst - Telecommunications Analyst I by the assignment of the full range of duties. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies within the work unit. Positions in this class are flexibly staffed and are normally filled by advancement from the entry-level.

Examples of Duties (Illustrative Only)

- Plans, determines requirements, designs, builds, tests, implements, maintains and enhances department or enterprise infrastructure telecommunications systems.
- Integrates telecommunications information systems for operability over multiple platforms and technologies.
- Acts as liaison between vendors, technical support and departments to resolve telecommunications problems; coordinates and implements corrective measures.
- Models changes against telecommunications hardware and software configurations to optimize the utilization of resources.
- Determines telecommunications needs and develops plans and proposals to meet the needs of customers.
- Research to determine feasibility, advises and recommends appropriate uses of telecommunications technology.
- Develops and implements comprehensive test plans to ensure that telecommunications technology components are tested and debugged prior to implementation.
- Monitors and enforces security policies and procedures.
- Installs third party telecommunications software; modifies software as necessary to meet specific customer requirements; installs vendor supplied maintenance and enhancements.

- Determines proper installation parameters for telecommunications software/hardware for smooth integration, transition, and efficiency.
- Provides assistance and training for customers as needed.
- Monitors and collects data on telecommunications system performance.
- Plans, develops, and implements backup and recovery procedures.
- Determines and adjusts telecommunications thresholds for system resources.
- Participates in projects related to assigned specialty fields.
- May function as a leader of a project team assigned to projects covering multiple platforms and/or specialty fields; provides leadership and mentoring to other Information Technology staff assigned to the project team.
- Plans, coordinates, and oversees project team activities; identifies deliverables and establishes schedules and timelines; identifies and allocates project resources.
- May provide data for justification of unit budget in relation to assigned projects.
- May provide input into selection decisions, performance evaluations, and disciplinary matters related to assigned project teams.
- Installs and maintains telecommunications equipment, networks, and services throughout the County.
- Attendance and punctuality that is observant of scheduled hours on a regular basis.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

Telecommunication Analyst I:

- Telecommunications systems, PBX and key telephone systems, and basic telephony, as well as voice and data processing.
- Principles and practices of installing, maintaining, and repairing digital and analog telecommunications equipment and systems.
- Equipment, tools, instruments, and materials used in the installation, maintenance, and repair of telephone equipment.
- Use of operation, configuration, and set up communications equipment and diagnostic equipment.
- The construction, repair, and operation of electronic telephone equipment, depending upon the assigned area of responsibility.
- Networks, test equipment, computerized tele-management systems.
- Principles and practices of work safety.
- Personal computer-based hardware and software used in the maintenance and repair of the telephone equipment.

Telecommunication Analyst II:

- Items listed in the Level I section.
- TCP/IP suite and the OSI model, fundamental to networking protocols.
- Public Switched Telephone Network (PSTN) and traditional telephony systems.
- Voice over IP protocols and standards.
- Understanding of structured cabling systems and fiber optic technology.
- Voicemail and unified messaging systems.
- Video and audio codecs associated with VoIP systems.
- Basic network elements and concepts.
- Basic server operating system concepts.
- Emergency telecommunications systems laws and regulations.
- Call center design and administration
- Skills in project planning, implementation, especially in the context of telecommunications infrastructure projects.

- Data packet capture and
- Rules and regulations of the Federal Communications Commission (FCC) on County telecommunications systems and equipment.
- Depending upon assignment, the theories of digital electronics and radio frequencies.
- Personal computer-based hardware and software used in the maintenance and repair of the telephone equipment.

Ability to:

- Identify and locate equipment; interpret work orders; remember equipment operation and location; and explain jobs to others.
- Learn the rules and regulations of the Federal Communications Commission (FCC) on County telecommunications systems and equipment.
- Learn to organize and manage multiple projects and develop monitoring, back up and re-start procedures.
- Read and comprehend technical reports and diagrams.
- Differentiate various colors of wires and diagrams and use a variety of tools.
- Prepare and maintain technical records and reports.
- Read and interpret electrical and electronic schematics and wiring diagrams and service manuals.
- Concentrate, analyze, and diagnose technical problems and provide effective, reliable solutions.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Work with various cultural and ethnic groups, customers, co-workers, and supervisors in a respectful, tactful, and effective manner.
- Understand and follow written and oral instructions and effectively communicate orally and in writing.
- Maintain and repair a wide variety of equipment brands, including both new and old technologies.
- Program and maintain a variety of brands of PBX and electronic key systems.

Education and Experience:

A combination of the required experience, education, and training that would provide the essential knowledge, skills, and abilities is qualifying; however, education may not solely substitute for the required experience.

Telecommunications Analyst I: Equivalent to a bachelor's degree from an accredited college with major course work in telecommunications systems, information technology computer science, communications technology, or a related field;

OR

Four (4) years of experience working with telecommunications equipment and systems, including the installation, maintenance, and repair of telephone, audio, video, or VoIP communications equipment and systems. Possession of one or more approved nationally recognized industry-specific technology certifications may be substituted for some or all the education.

Telecommunications Analyst II: Equivalent to a bachelor's degree from an accredited college with major coursework in telecommunications systems, information technology, computer science, communications technology, or a related field; **AND** Three (3) years of increasingly responsible experience working with analog, digital, and VoIP telecommunications equipment and systems, including the installation, maintenance, and repair of telephone, audio, video, or radio communications equipment;

OR

Two (2) years of professional experience at a level equivalent to the County's class of Telecommunications Analyst I.

Licenses and Certifications:

- Possession of, or ability to obtain and maintain, a valid California or Nevada Driver's License and a satisfactory driving record.

PHYSICAL DEMANDS

Must possess mobility to work in an office setting; use standard office equipment, including a computer; some positions may be required to operate a motor vehicle; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. Standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification frequently bend, stoop, kneel, and reach to perform assigned duties, as well as push and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 25 pounds. Reasonable accommodations will be made for individuals on a case-by-case basis.

ENVIRONMENTAL CONDITIONS

Employees work in an office environment with loud to moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

WORKING CONDITIONS

Must be willing to work after hours, weekends, and holidays as needed. Must be able to pass a thorough background investigation.