

## **TELECOMMUNICATIONS SYSTEMS DESIGNER**

### **DEFINITION**

Under general supervision of the assigned manager/supervisor, incumbent functions as a planner and project leader and/or technical specialist for the telecommunications network infrastructure for the District.

### **TYPICAL DUTIES**

Takes responsibility for the planning and management of the Information Technology (IT) network infrastructure throughout the enterprise including all new campus creation, new building construction, and remodels. Manages large vendor contracts, schedules work, and adjusts schedules; evaluates quality of work; determines completeness of work, enforces state guidelines and requirements for installation of work and payment for work. Provides technical architectural definition and modification guidelines. Acts as lead for IT staff who provide the designs and carry out infrastructure construction. Procures components; aligns deliverables to customer needs; assesses satisfaction of internal customers; and moderates disputes. Documents and oversees the publishing of all new installations and changes. Works with District facilities planners, architects, deans, and administration to ensure successful long and short-term infrastructure installation and utilization. Leads projects for linking the enterprise at all levels: site-to-site, building-to-building, floor-to-floor, and closet-to-closet. Specifies, orders, installs all high speed leased lines, oversees troubleshooting, and maintains documentation. Leads the planning of migrations to new or improved infrastructure practices. Assigns system resources as needed. Acts as a focal point for requests, problems, and issues affecting the network infrastructure. Assigns and monitors staff assignments and special projects and provides leadership, direction, and training for Information Technology Technicians, Support Consultants, and contract employees with unique skill sets. Leads the planning, design, and maintenance of complex systems, including video systems, alarm infrastructure, etc., and leads the development of procedures, policies, and guidelines for the operation of the network infrastructure. Performs related duties as required.

### **QUALIFICATIONS**

#### **EXPERIENCE**

Two years' experience working in network infrastructure design, network planning or related field. (One year of experience is equal to 12 months of experience at 40 hours per week. Applicable part-time experience will be converted to the full-time equivalent for purposes of meeting the experience requirement.)

#### **EDUCATION**

An Associate's degree from an accredited institution in Project Management, Electrical Engineering, Electronics, or related field; **OR**, a combination of training and/or experience totaling four years that is likely to have provided the required level of knowledge and abilities.

#### **SPECIAL REQUIREMENTS**

Possess and maintain a valid California Driver's License in compliance with Los Rios Board Regulation R-8343; employment is contingent upon meeting the requirements of Los Rios Board Regulation R-8343. This position may require operating a District or personal vehicle in order to complete assigned work within the scope of the position duties. Any offer of employment will be contingent upon the successful completion of a medical evaluation.

### **KNOWLEDGE OF**

Knowledge of architectural standards relating to IT infrastructure, installation, and IT impact on related fields such as electrical infrastructure, alarming, space utilization, and teaching efficiency. Knowledge of telecommunications and network systems; effective communication; effective customer service; and team dynamics, team building, and workgroup interaction. Knowledge of information systems problem management and change management; asset management; and computer applications, such as word processing, E-mail, spreadsheets, databases, and Internet applications. Knowledge of effective methods of leadership and project management; organizational processes, practices, and policies; and system, user, and architecture documentation. Knowledge of business recovery (disaster recovery); technical problem solving; and user acceptance testing. Knowledge of project terminology and practices; current industry information, vendor direction, new products, and new technical architectures; software licensing, intellectual property rights, and copyright law; and service level agreements. Knowledge of local area networking and Internet computing technologies; network configuration, maintenance, and diagnostic procedures and techniques; FCC Rules and Regulations applicable to network equipment and service; and contract administration. Methods of long-term technology assessment and deployment; enterprise distributed computer system technologies and relevant telecommunication standards; data and/or voice communication concepts and principles; logical and physical network design; Internet architectures and technologies; systems design and analysis; networking technologies; and structured system testing techniques. Knowledge of Layer 2 and 3 switching; relevant networking protocols; and engineering practices and principles related to network systems.

### **SKILL IN**

Skill in controlling the operations of equipment or systems; determining the kind of tools and equipment needed to do a job; identifying the nature of problems; and reorganizing information to get a better approach to problems or tasks. Skill in developing an image of how a system should work under ideal conditions; using logic and analysis to identify the strengths and weaknesses of different approaches; and determining the long-term outcomes of a change in operations. Skill in understanding written sentences and paragraphs in work related documents; communicating effectively with others orally and in writing as indicated by the needs of the audience; and listening to what other people are saying and asking questions as appropriate.

### **ABILITY TO**

The ability to perform the most complex functions of the position; sustain regular work attendance; work cooperatively and effectively with vendors, users, faculty, students, staff, peers, and management; exercise initiative and mature judgment; work as a member of a team; and develop and meet schedules and time lines. The ability to plan, organize, and direct work and assignments; understand and explain complex procedures and instructions; and provide team leadership and direction. The ability to prioritize and coordinate activities with vendors, users, and staff; and write clear specifications for vendors.

### **TYPICAL EQUIPMENT USED (May include, but not limited to)**

Current office technologies, computers, printers, copiers, faxes, and telephones.