

Iowa Department of Administrative Services – Human Resources Enterprise  
Job Classification Description

## Telecommunications Design Specialist

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### Definition

Performs and/or oversees work concerned with designing, implementing, and coordinating new and existing telecommunications systems and subsystems; performs related work as required.

*The work examples and competencies listed below are for illustrative purposes only and not intended to be the primary basis for position classification decisions.*

### Work Examples

Assists supervisor by performing such duties as instructing employees, answering questions, distributing and balancing the workload, and checking work; may make suggestions on selection, promotions, and reassignments.

Communicates with all users (e.g., employees, local partners, etc.) of the telecommunications system, handling complaints or questions regarding the use of the system; troubleshoots software issues related to the system.

Designs or configures wired or wireless communications systems for voice, video, and data services.

Monitors system availability via software to ensure the grade of service is adequate for the system to perform at high levels consistently.

Consults with employees of state agencies and vendors to determine agency needs, requirements, and limitations regarding telecommunications equipment.

Conducts studies and interviews with agency users to determine the degree of user acceptance and attitudes toward existing systems, as well as needs for future enhancements.

Reviews statistics related to the communication system and distributes to administrators/users for review; reviews progress reports on the radio system; works on system processes and recommends changes in work flow and structure with the application software for the radio system.

Designs systems to comply with agency needs and requirements and trains agency personnel in use of new telecommunications.

Attends training courses to remain up-to-date on new/developing communication system technology.

Provides direction and control of service order activity processing, maintenance, and repair services to ensure that all operations are completed in a proper and timely manner.

Researches new communication technologies and makes recommendations for updating operational procedures and system equipment to support long-term business needs.

Analyzes proposals received from vendors offering new transmission services for Capitol Complex and other state locations and makes recommendations for acceptance/rejection of such proposals.

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## Competencies Required

### Knowledge:

- Telecommunications – Transmission, broadcasting, switching, control, and operation of telecommunications systems.
- Administration and Management – Business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
- Customer and Personal Service – Principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- Engineering and Technology – Practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- Computers and Electronics – Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- Mathematics – Arithmetic, algebra, geometry, calculus, statistics, and their applications.
- Design – Design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.

### Abilities:

- Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.
- Inductive Reasoning – Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- Written Comprehension – Read and understand information and ideas presented in writing.
- Oral Comprehension – Listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression – Communicate information and ideas in speaking so others will understand.
- Problem Sensitivity – Tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.

### Skills:

- Complex Problem Solving – Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- Reading Comprehension – Understanding written sentences and paragraphs in work related documents.
- Speaking – Talking to others to convey information effectively.
- Systems Evaluation – Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.

- Systems Analysis – Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
- Technology Design – Generating or adapting equipment and technology to serve user needs.
- Writing – Communicating effectively in writing as appropriate for the needs of the audience.
- Judgment and Decision Making – Considering the relative costs and benefits of potential actions to choose the most appropriate one.

### **Minimum Qualification Requirements**

Applicants must meet at least one of the following minimum requirements to qualify for positions in this job classification:

- 1) Eight years of full-time work experience in planning, designing, installing, testing, and maintaining telecommunications systems.
- 2) Graduation from an accredited four-year college or university with a degree in any field, and experience equal to four years of full-time work in planning, designing, installing, testing, and maintaining telecommunications systems.
- 3) All of the following (a and b):
  - a. Four years of full-time work experience in planning, designing, installing, testing, and maintaining telecommunications systems; and
  - b. A total of four years of education and/or full-time experience (as described in part a), where thirty semester hours of accredited college or university coursework in any field equals one year of full-time experience.
- 4) Graduation from an accredited four-year college or university with a degree in electrical or electronic engineering, and experience equal to three years of full-time work in planning, designing, installing, testing, and/or maintaining telecommunications systems.
- 5) Current, continuous experience in the state executive branch that includes one year of full-time work as Communications Technician 3.

### **Notes**

Some positions in this class may require an applicant to have the ability to pass a background investigation.

*Effective date: 01/26 SA*