

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

Chief Communications Engineer

Definition

Provides supervisory, professional communications engineering oversight in the design, installation, and development of statewide communications networks, emergency alerting systems, or geospatial information systems; 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

Supervises and evaluates the work of subordinates; recommends personnel actions related to selection, disciplinary procedures, performance, leaves, grievances, work schedules, and assignments; administers personnel policies and procedures.

Develops long-range telecommunication plans. Oversees the development of telecommunications services, including operational policies and procedures.

Meets with the general public, public officials, and technicians to resolve issues and complaints; oversee the resolution of technical issues between the agency and contractors and determine the most effective and cost-efficient resolution.

Analyzes communication installations to determine adequacy and impact of systems design in the solving of agency communications problems, and to direct implementation of improvements, expansion, and alteration of a statewide communications system.

Oversees the provision of timely and accurate data to service customers; ensures that proper specifications are written and provided to vendors; ensures that vendors provide professional installation and technical services.

Administers service contracts with vendors to maintain the highest level of service to customers and minimize any network downtime due to technical difficulties; coordinates with vendors for maintenance and installation; oversee maintenance and management of critical network elements.

Advises agency management in planning and negotiating for procurement of equipment, materials and contract services; writes specifications for new communications equipment; uses the latest designs and techniques; interacts with equipment manufacturers and vendors.

Provides engineering and technical assistance to department technicians and other state and local agencies.

Reviews the agency's communication system to ensure compliance with regulations and requirements.

Manages an electronic engineering development laboratory facility; maintains engineering calibration standards on all equipment; verifies and validates radio system standards.

Competencies Required

Knowledge:

- Telecommunications – Transmission, broadcasting, switching, control, and operation of telecommunications systems.
- Engineering and Technology – The practical application of engineering science and technology, which includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- 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 Service – Principles and processes for providing customer services, including customer needs assessment, meeting quality standards for services, and evaluating customer satisfaction.
- Law and Government – Laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.
- English Language – The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Mathematics – Arithmetic, algebra, geometry, calculus, statistics, and their applications.
- Computers and Electronics – Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

Abilities:

- Law and Government – Understand and adhere to applicable laws, legal codes, administrative rules, and regulations.
- 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.
- Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.
- Originality – Come up with unusual or clever ideas about a given topic or situation, or develop creative ways to solve a problem.
- Information Ordering – Arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- 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:

- Active Listening – Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

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- 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.
 - Monitoring – Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
 - Writing – Communicating effectively in writing as appropriate for the needs of the audience.
 - Active Learning – Understanding the implications of new information for both current and future problem-solving and decision-making.
 - Judgment and Decision Making – Considering the relative costs and benefits of potential actions to choose the most appropriate one.
 - Complex Problem Solving – Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

Minimum Qualification Requirements

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

- 1) Graduation from an accredited college or university with a Master's degree in telecommunications engineering, electrical engineering, or computer science and experience equal to five years of full-time work in the design, operation, or planning of data or other network communications or in communications engineering involving system design and development.
- 2) Ten years of full-time work experience in the design, operation, or planning of data or other network communications or in communications engineering involving system design and development.
- 3) A combination of ten years of education and full-time experience (as described in number two), where thirty semester hours of accredited college or university course work in electrical or electronic engineering, physics, mathematics, computer science, or a related field equals one year of full-time experience.

Additional Qualification Requirements

For select positions, applicants may be required to meet one or more of the additional qualification requirements listed below.

- A minimum of twelve semester hours of education, six months of full-time experience, or an equivalent combination of both in the following areas:

205 homeland security or emergency management telecommunications

Applicants who wish to be considered for these select positions must describe on the application how each additional qualification requirement is met.

Effective date: 08/14 SA