

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

## Telecommunications Technology Enterprise Expert

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### Definition

This job classification is used only by the Iowa Communications Network.

Positions in this class provide expertise in a major telecommunications discipline, providing enterprise-wide technical authority for strategic planning, design, and complex statewide projects; resolves the most critical network issues and guides the organization's future technology direction; 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.

Designs and develops enterprise network architectures to ensure alignment with organizational goals and long-term technical strategies.

Develops and maintains network standards, policies, and procedures to ensure consistent service quality, security, and scalability.

Serves as a top-tier escalation point for complex network incidents unresolved by lower-level support teams.

Performs in-depth root-cause analysis of chronic or high-severity network issues to prevent recurrence and improve service reliability.

Provides expert-level Tier 3 technical support by diagnosing and resolving complex, non-routine network incidents and documenting solutions for lower tiers.

Collaborates with vendors, service providers, and internal stakeholders to design, implement, and support new network services and technologies.

Evaluates, tests, and deploys new network hardware and software solutions to enhance performance, reliability, and security.

### Competencies Required

Knowledge:

- English Language – Structure and content of the English language including the meaning and spelling of words, and rules of composition and grammar.
- 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.

- Administrative – Administrative and office procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and workplace terminology.
- 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.
- Communications – The science and art of delivering information.
- Communications and Media – Media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media.
- Telecommunications – Transmission, broadcasting, switching, control, and operation of telecommunications systems.
- Engineering and Technology – The design, development, and application of technology for specific purposes.
- Computers and Electronics – Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- Design – Design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
- Engineering and Technology – The 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.

Abilities:

- Category Flexibility – Generate or use different sets of rules for combining or grouping things in different ways.
- Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.
- Fluency of Ideas – Come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
- Inductive Reasoning – Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- 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).
- Originality – Come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Problem Sensitivity – Tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing that there is a problem.
- Flexibility of Closure – Identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- Number Facility – Add, subtract, multiply, or divide quickly and correctly.

- Visualization – Imagine how something will look after it is moved around or when its parts are moved or rearranged.
- 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.
- Written Comprehension – Read and understand information and ideas presented in writing.
- Written Expression – Communicate information and ideas in writing so others will understand.
- Speech Clarity – Speak clearly so others can understand you.
- Speech Recognition – Identify and understand the speech of another person.

Skills:

- Complex Problem Solving – Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Time Management – Managing one's own time and the time of others.
- Service Orientation – Actively looking for ways to help people.
- Judgment and Decision Making – Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- Systems Analysis – Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
- 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.
- Installation – Installing equipment, machines, wiring, or programs to meet specifications.
- Operations Analysis – Analyzing needs and product requirements to create a design.
- Quality Control Analysis – Conducting tests and inspections of products, services, or processes to evaluate quality or performance.
- 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.
- Reading Comprehension – Understanding written sentences and paragraphs in work-related documents.
- Speaking – Talking to others to convey information effectively.
- 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.
- Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- Learning Strategies – Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.

- Monitoring – Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

### **Minimum Qualification Requirements**

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

- 1) Ten years of full-time work experience in telecommunications/electrical engineering; network and server systems; carrier operations; fiber optics; or Internet/Intranet development.
- 2) A total of ten years of education and/or full-time experience (as described in number one), where thirty semester hours of accredited college or university coursework in any field, equals one year of full-time experience.
- 3) Completion of an approved curriculum/specialized training program developed and implemented by or in cooperation with state government, and experience equal to six years of full-time work (as described in number one).
- 4) Graduation from an accredited four-year college or university with a degree in any field, and experience equal to six years of full-time work (as described in number one).
- 5) Current, continuous experience in the state executive branch that includes two years of full-time work as a Telecommunications Engineer Senior or Telecommunications Specialist Senior.

*Effective date: 12/25 KC*