



Human Resources

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DATE: July 6, 2021
TO: Civil Service Board
FROM: Laura Dahl
Human Resources Generalist
SUBJECT: New Job Classification of Communications Infrastructure Specialist

**RECOMMENDATION:
APPROVAL OF THE JOB DESCRIPTION FOR THE NEW CLASSIFICATION OF COMMUNICATIONS INFRASTRUCTURE SPECIALIST.**

Background Information

HR is updating all job descriptions that are 10 years old or older; this classification is one of them. The updated job description is in a new format, including new standard language.

This new classification will be replacing the old title of Electronics Technician Leadworker. The new title and updated language throughout the job description will hopefully help attract more candidates to this unique skill set.

This job description has been discussed with the union and they agree to the changes.

Outline of Duties

To ensure the stability of two-way, point-to-point, radio, wireless and other electronic communication services and equipment for all departments within the City of Duluth. This involves participating with the installation, monitoring, maintenance, support, and optimization of all radio communication hardware and connectivity; analyzing and resolving hardware problems in a timely and accurate fashion, and providing end user support as required.

Recommendation

Based on the above information, and in accordance with Section 13-7 of the Civil Service Code, I recommend that the Civil Service Board approve the new job classification and description for Communications Infrastructure Specialist.

Communications Infrastructure Specialist

SUMMARY/PURPOSE

To ensure the stability of two-way, point-to-point, radio, wireless and other electronic communication services and equipment for all departments within the City of Duluth. This involves participating with the installation, monitoring, maintenance, support, and optimization of all radio communication hardware and connectivity; analyzing and resolving hardware problems in a timely and accurate fashion, and providing end user support as required.

DISTINGUISHING FEATURES OF THE CLASS

Employees at a Communications Infrastructure Specialist level are distinguished from the Communications Infrastructure Technician level by the amount of guidance and instruction needed to perform duties as assigned, and are not expected to function with the same amount of program knowledge, proficiency, or skill level. Positions at this level exercise more independent discretion and judgement in matters related to work procedures and methods and may be required to provide support to higher level situations.

SUPERVISION RECEIVED

The supervisor provides continuing or individual assignments by indicating generally what is to be done, limitations, quality and quantity expected, deadlines, and priority of assignments. The supervisor provides additional, specific instructions for new, difficult, or unusual assignments, including suggested work methods or advice on source material available.

SUPERVISION GIVEN

Does not have direct supervisory responsibility but does have significant oversight of employees or project that require delegation and direction over the work of others.

ESSENTIAL DUTIES AND RESPONSIBILITIES

1. Installation, assistance and management of electronic, radio and wireless equipment such as wireless access points, IP Cameras, radio consoles, antennas, base stations, microwaves, multiplexors, mobile two-way radios, electronic relays, GPS devices, amplifiers, BDAs, and signaling equipment in and on buildings, vehicles, radio towers and other City owned or leased property.
2. Configure, monitor, maintain, analyze and test proper and reliable operation of supported equipment to fulfill business objectives and processes.
3. Create and maintain documentation as it relates to radio and wireless network configuration, electronics mapping, processes, and service records.
4. Participate in the development, implementation and maintenance of policies, procedures, and associated training plans for radio communication administration, usage, and disaster recovery.
5. Coordinate, conduct and attend radio communication meetings as needed.
6. Assist in the development and testing of disaster recovery procedures to protect against catastrophic circumstances or other hardware failures in emergency communication components.
7. Conduct research on radio and wireless communication products, services, protocols, and standards to remain abreast of developments in the communications industry.
8. Interact and negotiate with vendors, outsourcers, and contractors to secure communication products and services.
9. Recommend, schedule, and perform improvements to communication systems including upgrades and repairs.
10. Provide asset management of radio and wireless communication equipment, including maintenance of electronic and component inventory and related documentation and technical specifications information.
11. Assist users with questions and/or problems regarding communication resources.

12. Develop and conduct training on the methods, practices, policies and procedures applicable to communication systems.
13. Act as a team lead in the training and mentorship of Communications Infrastructure Technicians as well as be an escalation point for advanced or difficult radio and communications solutions.
14. Be an effective team member by exhibiting self-motivation, supporting other employees in handling tasks, interacting effectively and respectfully with others, showing a desire to contribute to the team effort, accepting assignments willingly, and completing tasks within agreed upon timelines.
15. Coordinate with various City departments, other government agencies, and community groups to develop methods of sharing resources, minimizing duplication, and simplifying procedures.
16. Provide training on new or modified procedures and policies to all affected parties.
17. In collaboration with the supervisor, organize and direct the work activities of assigned team, and determine work priorities, assignments, and work schedules.
18. Provide input on decisions regarding the hiring processes and onboarding procedures of personnel.
19. Establish and maintain positive working relationship with the supervisor and employees by maintaining two-way communication, producing consistent results, advocating for the team when appropriate, and offering expertise to improve processes, systems, and the organization.
20. Other duties may be assigned.

JOB REQUIREMENTS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed are representative of the knowledge, skills, and abilities required.

1. Education & Experience Requirements
 - A. Associate's Degree in Computer Science, CIS controls, Electronics, or a related professional field; AND three years of full-time related verifiable professional experience in radio, electronics or communications system support including component-level electronics diagnosis and repair and two-way radiotelephone communications equipment; OR five years of full-time related verifiable professional experience listed above.
 - B. Certification by a nationally recognized electronics certification program such as NABER, NICET, NARATE, APCO or equivalent technical certification preferred.
2. License Requirements
 - A. Possess and maintain a valid Minnesota Class D driver's license or privilege.
 - B. Possess and maintain a valid Power Limited license preferred.
 - C. Possess and maintain a valid Commercial Radio Operators license preferred.
3. Knowledge Requirements
 - A. Comprehensive knowledge of electronic theory and practice, including solid state and digital electronics.
 - B. Thorough knowledge radio and electronics management and analysis tools.
 - C. Radio, wireless communications and/or electronics hardware, software, and connection troubleshooting experience.
 - D. General knowledge of FCC rules and regulations.
 - E. General knowledge of mathematics at an advanced algebraic and trigonometric level.
 - F. Working knowledge of testing tools and procedures for voice and data circuits.
 - G. Knowledge of problem solving and conflict resolution techniques.
 - H. Knowledge of applicable safety requirements.
 - I. Knowledge of, or the ability to learn, City policies and procedures.
 - J. Knowledge of federal, state, and local laws, statutes, regulations, codes, and standards related to the area of responsibility.
 - K. Knowledge of effective leadership and personnel practices.

4. Skill Requirements
 - A. Skill at installing, diagnosing, maintaining and repairing diverse electronic and electrical equipment at the component level.
 - B. Skill at analyzing equipment malfunctions using logic, experience, and advanced diagnostic equipment.
 - C. Skill in the operation of office equipment including, but not limited to, general computer systems, job required software applications, the internet, and modern office equipment.
 - D. Skill in managing one's own time and the time of others.
 - E. Skill in completing assignments accurately and with attention to detail.
 - F. Skill in using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

5. Ability Requirements
 - A. Ability to conduct research into radio communication issues and products as required.
 - B. Ability to climb tall structures to install, adjust and repair communications equipment.
 - C. Ability to present ideas in business-friendly and user-friendly language.
 - D. Ability to be available for standby and/or callback.
 - E. Ability to read, analyze and interpret technical diagrams and written procedures.
 - F. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.
 - G. Ability to communicate and interact effectively with members of the public.
 - H. Ability to communicate effectively both orally and in writing.
 - I. Ability to recognize, analyze, and solve a variety of problems.
 - J. Ability to organize and prioritize work while meeting multiple deadlines.
 - K. Ability to handle difficult and stressful situations with professional composure.
 - L. Ability to work successfully as a member of a team and independently with minimal supervision.
 - M. Ability to train and lead others.
 - N. Ability to interpret and apply laws, contracts, regulations, policies, and procedures.
 - O. Ability to enforce safety rules and regulations.
 - P. Ability to maintain confidential information.
 - Q. Ability to demonstrate dependability, responsibility, and consistency in their job performance.
 - R. Ability to attend work as scheduled and/or required.

Physical Demands

The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as record boxes. The work may require specific, but common, physical characteristics and abilities such as above.

Work Environment

The work environment involves moderate risks or discomforts requiring special safety precautions (e.g., working around moving parts, carts, or machines, or with contagious diseases or irritant chemicals). Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields.

HR:	Union:	EEOC:	CSB:	Class No:
WC:	Pay:	EEOF:	CC:	Resolution: