



CLASS TITLE | NETWORK ENGINEER III

PAY GRADE: IS-44 | www.cityoftulsa.org/pay

Effective Date: 04/29/2026

CLASS CODE: 2682

PURPOSE OF THE CLASSIFICATION: Under general direction, is responsible for evaluating, testing, recommending, implementing and maintaining data communications hardware and operating systems in support of a large Metropolitan Area Network, administering data communication management and utility applications, analysis and optimization of network traffic flow, detecting, isolating and correcting network errors and outages, designing building and campus networks; and performs other related duties as assigned.

ESSENTIAL TASKS:

- Assists in projects to develop or improve services over the network
- Monitors, analyzes and optimizes network flow
- Monitors and supervises the work of subordinate personnel
- Evaluates, tests, recommends, implements and maintains network management, monitoring and troubleshooting applications
- Maintains compliance with internal business processes, including configuration and change management
- Evaluates, tests and recommends new networking technologies
- Assists IT Security in research, evidence gathering, documentation and network analysis
- Creates network performance reports on schedule and/or request
- Collaborates with executive management and department leaders to assess short- and long-term network capacity needs
- Creates and maintains documentation related to network configuration, mapping and processes and service records
- Designs, modifies, recommends and deploys local and wide area and wireless networks, including routers, switches, uninterruptible power supply (UPS's) and other hardware
- Conducts research on network products, services, protocols
- Oversees new and existing equipment, hardware, and software upgrades
- Monitors network performance and troubleshoots problem areas, as needed
- Practices network asset management, including maintenance of network component inventory and related documentation and technical specifications
- Interacts and negotiates with vendors, outsources and contractors to secure network products and services
- Must report to work on a regular and timely basis

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential tasks.

QUALIFICATIONS:

Training and Experience: Must meet the following criteria or an equivalent combination of training and experience per Personnel Policies and Procedures, Section 100:

- (a) Graduation from an accredited college or university with a Bachelor of Technology in Information Technologies or related field; **and,**
- (b) Five (5) years' experience in data communications



CLASS TITLE | NETWORK ENGINEER III

PAY GRADE: IS-44 | www.cityoftulsa.org/pay

Effective Date: 04/29/2026

CLASS CODE: 2682

Knowledge, Abilities and Skills:

Knowledge of:

- Considerable knowledge of networking/fiber management standards, protocols and best practices
- Considerable knowledge of the following:
 - Transmission Control Protocol/Internet Protocol (TCP/IP)
 - Open Shortest Path First (OSPF)
 - Virtual Redundant Routing Protocol (VRRP)
 - Border Gateway Protocol (BGP)
 - Virtual Local Area Networks (VLAN's)
 - Multiprotocol Label Switching (MPLS)
 - Domain Name System (DNS)
 - Dynamic Host Configuration Protocol (DHCP)
 - Simple Network Management Protocol (SNMP)
 - Netflow and sFlow
 - Wireless communications, including IEEE 802.11 Wireless LAN protocol
 - Supervisory Control and Data Acquisition (SCADA)
 - IEEE 802.1x
 - Port-based Network Access Control (PNAC)
 - RADIUS
 - Access Control Lists (ACL's)
 - Cisco ACI

Ability to:

- Perform analysis of operating and/or data communications systems from technical feasibility aspects
- Plan, coordinate, evaluate, and lead the work of subordinates or less experienced co-workers
- Communicate verbally and in writing with all levels of customers
- Document advanced technical information in a concise and understandable format

Physical Requirements: Physical requirements include arm and hand dexterity enough to use a keyboard and telephone; frequent lifting up to 20 pounds; occasional lifting and carrying up to 60 pounds; occasional pushing and pulling up to 60 pounds; may be subject to sitting, walking, standing, reaching, bending, kneeling, crawling, handling, feeling, climbing, smelling, and twisting; and vision, speech, and hearing sufficient to perform the essential tasks.

Licenses and Certificates:

1. Possession of a valid Oklahoma Class "D" Driver license; **and,**
2. Possession of Cisco Certified Network Associate certificate (CCNA) *preferred*; **or,**



CLASS TITLE | NETWORK ENGINEER III

PAY GRADE: IS-44 | www.cityoftulsa.org/pay

Effective Date: 04/29/2026

CLASS CODE: 2682

3. Possession of Certified Wireless Network Administrator certificate (CWNA)

WORKING ENVIRONMENT: Working environment is primarily indoors and occasionally outdoors and in inclement weather. May be exposed to the following: hazardous materials, animal waste/dead animals, flammable liquids, radiation, traffic, cramped work areas, excessive dust, weather/temperature extremes, trench excavations, underground gas/electric/petroleum/fiber optic lines, rough terrains, cutting/chipping/grinding, hazardous/toxic atmospheres, sewage, damp/wet surfaces, snow/ice covered surfaces, animal bites, insect bites, poisonous plants, overhead power lines, toxic fumes/vapors/odors, confined spaces, compressed gases, high noise areas. Standby and on-call after-hour support is required.

EEO Code: E-02

Group: Clerical and Administrative

Series: Data Processing and Information Services