

Job Title: Network Engineer
Department: Technology & Media
Reports To: Network & Security Coordinator
FLSA Status: Exempt
Salary Schedule: EC lane 04



SUMMARY

The Network Engineer's role is to assist in the design, implementation, optimization, and ultimately ensure the stable operation and integrity of all network services and wide area network backhauled throughout the District, both wired and wireless. The Engineer also provides backup support for all District VOIP systems.

ESSENTIAL DUTIES AND RESPONSIBILITIES may include the following. Regular, reliable worksite attendance and timeliness is an essential job function to perform the essential duties and responsibilities of the position. While this job description attempts to outline all essential duties of the position, the description is not a contract and the job functions are subject to change at the organization's discretion. Other duties may be assigned.

Collaborates with the Network & Security Coordinator in network designing and capacity planning to assess short and long-term network capacity needs.

Coordinates closely with the Network & Security Coordinator and other Network team members on assigned wired and wireless infrastructure deployments and upgrades.

Engineers and designs new wireless systems as well as build-out of existing infrastructure using wireless predictive modeling and active survey analysis.

Ensures that wireless access point signals correctly overlap, provides sufficient density and coverage with minimal interference, and configures effective wireless channel mapping.

Manages wireless network hardware including WLAN controllers, access points, and wireless backhauled on the WAN.

Collaborates with the Network Team to update the networking asset inventory and network topography documentation. Manages firmware and software updates for assigned devices.

Conducts periodic wireless security audits and communicates with the Network Security Coordinator to identify potential network vulnerabilities.

Installs access points in designated locations; inspects connectivity and signal strength. Installs cable drops for network devices and ensures correct LAN connectivity to all deployed devices

Installs new copper and fiber data drops using district network standards.

Configures network systems to ensure their smooth and reliable operation for fulfilling business objectives and processes.

Assists in the installation and maintenance of the district's local area and wide area networks..

Assists in the installation and maintenance of network systems, including routers, switches, servers, PRIs, intercoms, and other hardware and services.

Assists in the development and maintenance of written documentation and schematics for each local area network and wide area network. Documentation should include detailed network information, topologies, writing schematics, active protocols, and IP addressing scheme.

Provides internet connectivity, where appropriate.

Provides network security including the implementation of network segmentation, firewalls, and access control lists, where needed.

Maintain a high level of confidentiality and discretion.

SUPERVISORY RESPONSIBILITIES

This job has no supervisory responsibilities unless directed by the Network & Security Coordinator.

KNOWLEDGE, SKILLS, ABILITIES, AND QUALIFICATIONS *To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. Must demonstrate an acceptable level of maturity, good judgment, and emotional stability.*

Ability to configure Cisco switches, Ruckus access points, SmartZone controllers, and wireless backhaul bridges.

Demonstrated understanding of radio frequencies, TCP/IP, IEEE 802.11 protocols, and electromagnetic interference.

Ability to perform network vulnerability research for security threats and software weaknesses.

Ability to read, write, and communicate effectively in English at a level required for successful job performance. Ability to read and interpret documents such as safety rules, operating and maintenance instructions, and procedure manuals. Ability to write routine reports and correspondence. Ability to speak effectively before groups of employees of the school district.

Ability to work with applicable mathematical concepts. Ability to apply concepts such as fractions, percentages, ratios, and proportions to practical situations. Ability to perform mathematical operations using units of American money.

Ability to apply common sense understanding to carry out essential duties of this position. Ability to carry out instructions furnished in written, oral, or diagram form. Ability to troubleshoot and solve problems involving concrete variables situations. Ability to define problems, collect data, establish facts, and draw valid conclusions.

EDUCATION and/or EXPERIENCE

Bachelor's degree in the field of Computer Science, Computer Engineering, or Information Technology and 3 years equivalent work experience or the equivalent combination of significant college education and related work experience.

Proven experience and success with enterprise level LAN and WLAN engineering, design, and implementation.

Experience with various operating systems, including Windows, Linux, Mac OS, ChromeOS, Android, and iOS.

Experience in WLAN packet analysis, signal optimization, Power over Ethernet, and general wireless connectivity. Experience with WLAN capacity planning.

Experience with Ekahau, Air Check, spectrum analyzers, and other wireless design, deployment and troubleshooting tools.

CERTIFICATES, LICENSES, REGISTRATIONS

MCSE, CWNA, CWAP, CWDP, CWSP or CWNE certification(s) recommended.

Must have and maintain an active Utah Driver's License. Must complete Utah Risk Management Defensive Driver training every two years. (Utah Code R31-1)

PHYSICAL DEMANDS *The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

While performing the duties of this job, the employee is regularly required to sit; use fingers and hands to handle. The employee frequently is required to stand and walk; talk or hear; reach with hands and arms. The employee is occasionally required to stoop, kneel, crouch, or crawl. The employee must regularly lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

WORK ENVIRONMENT *The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

While performing the duties of this job, the employee is regularly exposed to moving mechanical parts, outside weather conditions, and risk of electrical shock. The noise level in the work environment is usually moderate.

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| Prepared By: Network & Security Coordinator | Date: 05/27/2015 |
| Approved By: Executive Director, Human Resources | Date: 05/27/2015 |

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| <input checked="" type="checkbox"/> Reviewed | <input type="checkbox"/> Revised | By: HR Position Management Specialist | Date: 09/29/2015 |
| <input type="checkbox"/> Reviewed | <input checked="" type="checkbox"/> Revised | By: HR Assistant Director | Date: 01/16/2019 |
| <input type="checkbox"/> Reviewed | <input checked="" type="checkbox"/> Revised | By: Network & Security Manager | Date: 12/19/2019 |
| <input type="checkbox"/> Reviewed | <input checked="" type="checkbox"/> Revised | By: Tech Operations & Security Director | Date: 07/11/2022 |

EMPLOYEE ACKNOWLEDGEMENT OF RECEIPT:

By signing below, I acknowledge that I have received a district approved position description for my current position. I understand it is my responsibility to review the position description and direct any questions regarding the position description to my department supervisor or the Human Resources Department.

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| Print Name: | Date: |
| Employee Signature: | |