

SENIOR NETWORK ENGINEER



Information Technology Department

Purpose:

The Senior Network Engineer designs and manages the District's large scale Wide Area Network (WAN). The Senior Network Engineer provides leadership and has primary responsibility in ensuring optimal operations of the data centers and data communications network in order to provide maximum performance and availability for staff and students. This role oversees enterprise network design, security and long-range planning functions for the District's vast network.

Reports to: Administrator for Technology Services

Nature & Scope:

The Senior Network Engineer performs work of a specific nature under general supervision. The nature of the work requires adherence to standard procedures, as well as policies and regulations. Independent judgment and decision making is required in matters not having established procedures. As a member of the Information Technology Department, the Senior Network Engineer engages with highly sensitive information and must maintain absolute integrity of systems and confidentiality of classified data. Although the Senior Network Engineer does not have supervisory responsibilities, the incumbent interfaces with numerous employees across the district at all levels of the organization.

Essential Job Functions:

1. Conducts oneself in the best interest of students, in accordance with the highest traditions of public education and in support of the District's mission.
2. Designs the district's network standards and selects types of equipment, manufacturers, and topologies for effective and efficient access to computer services for the purpose of architecting, delivering and maintaining a reliable and stable technology infrastructure appropriate to support the core instructional mission of the district.
3. Develops standards for network attachment, network security, construction materials, and practices to establish orderly infrastructure for maintenance and upgrade control, and to protect the computer environment from corruption.
4. Provides top-tier diagnosis, analysis, and problem resolution of complex network issues using standard hardware and software tools (e.g. protocol analyzers and SNMP management tools).

5. In conjunction with IT Department administration and with *System Administrators*, devises and recommends short and long-range plans for development and enhancement of communications and network infrastructure.
6. Maintains audit compliance with state requirements of centralized and distributed LAN/WAN infrastructure components, network security, backup/disaster recovery, user rights management, and asset management.
7. Coordinates network policies, maintenance and enhancement activities with service providers, government agencies and outside vendors.
8. Researches resources and methods (e.g. journals, literature, vendor information, etc.) for the purpose of maintaining current knowledge of new and emerging technologies.
9. Researches, designs and coordinates implementation of network based solutions to support the administrative and instructional functions of the School District. Provides leadership, guidance, training, and workflow coordination for technical staff on new installation and enhancement projects for the purpose of implementing key initiatives.
10. Prepares and evaluates RFP's and RFQ's for vendor provided solutions.
11. Creates and maintains technical documentation, including network specifications and diagrams.
12. Oversees network security using firewall and other technologies.
13. Participates in the network design and development for new construction and remodels.
14. Coordinates the development of network security, access procedures and policies.
15. Provides backup to the *Network Engineer II* and may be called upon to undertake any of the functions identified in the job description of the *Network Engineer II*.
16. Maintains effective working relationships with other members of the Department as well as other school personnel and community members, including those from diverse cultures or backgrounds or those who speak limited or no English.
17. Complies with all procedures outlined in the *Code of Professional Conduct* and *Annual Notices for Education Practitioners, Teachers, Support Staff, Administrators, Substitutes Handbook*; and all other Beaverton School District Policies and Procedures.

The statements contained above reflect general details as necessary to describe the principal functions of this job but should not be considered an all-inclusive listing of work requirements. Individuals may at times perform other duties as assigned which could include work in other functional areas to cover absences or relief, to equalize peak work periods or otherwise to balance the workload.

Required Qualifications:

1. Must possess a Bachelor's Degree in Engineering, Computer Science, Information Systems or related field.
2. Must possess five years' experience of deployment and troubleshooting of a large-scale enterprise wired and wireless wide area network system.
3. In lieu of requirements #1 and #2, must have nine years' combined education (Associate's Degree/Technical Trade School Certificate/Networking Certification) and or experience necessary to perform the job related to deployment and troubleshooting of large scale enterprise wired and wireless 3 wide area network systems.

4. Must demonstrate leadership skills, the ability to influence and motivate others, and skilled in the leading of multi-discipline teams.
5. Must demonstrate knowledge of TCP/IP networking and routing protocols.
6. Must demonstrate knowledge of VOIP networking and protocols.
7. Must demonstrate ability to configure and maintain layer 2 and layer 3 devices.
8. Must demonstrate and understanding of network topology.
9. Must demonstrate knowledge of and ability to configure a stretched network across multiple data centers.
10. Must demonstrate knowledge of OSPF routing.
11. Must be able to communicate effectively, both orally and in writing. Must read, understand, and follow multi-step written and verbal instructions in English.
12. Must be able to pass a criminal background check.
13. Must possess an Oregon or Washington Driver's License.

Working Conditions:

The Senior Network Engineer works primarily at the administrative building and data centers, traveling occasionally to schools and office buildings throughout the District. The work environment is often controlled and quiet, but the work environment will also frequently include moderate to loud noise. The Senior Network Engineer must be able to lift and move computer equipment, up to 50 lbs. without assistance, and the role requires regular focus on a computer screen.

The incumbent is required to sit, stand, have finger/hand dexterity for working on computers for extended periods of time. Standing, walking, bending, stooping, kneeling, and standing/working on ladders will be required on occasion. The work environment may include exposure to unpleasant interior temperatures, dirt, wetness, and communicable diseases. Potential exposures include, but are not limited to: blood-borne pathogens; allergens; dirt; odors; dust; cold and hot temperatures; and unpredictable behavior from students.

Work Year: 260 days

Bargaining Unit: OSEA

FLSA Status: Exempt

Date Approved: April 15, 2023

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The Beaverton School District recognizes the diversity and worth of all individuals and groups. It is the policy of the Beaverton School District that there will be no discrimination or harassment of individuals or groups based on race, color, religion, gender, sexual orientation, gender identity, gender expression, national origin, marital status, age, veteran status, genetic information or disability in any educational programs, activities or employment.