

Job Description: Roanoke Connect, Network Engineer I

Department: Roanoke Connect	FLSA Status: Exempt
Reports to: Director of Network Engineering	Location: Lumberton/Pembroke
Supervises: None	
NRECA NCS classification: 57-2342	Revised: 5/26/2022

BASIC FUNCTION:

As a Network Engineer at Roanoke Connect you will be a member of a small team that is responsible for building out, maintaining, managing and troubleshooting a FTTP network. Your daily responsibilities may include adding new devices to the network, monitoring network capacity, configuring new devices, troubleshooting subscriber connectivity and/or participating in a team planning session for a new product or service.

Functions Include:

- Responsible for the implementation of approved network architecture and designs
- Integrates complex communication architectures, topologies, hardware, software, transmission and signaling links and protocols into complete network configurations.
- Evaluates new products, performs advanced network problem resolution.
- Assists in the development and documentation of technical standards and implements approved methods of procedure.
- Contributes to designing corporate standards and develops network enhancements
- Works on complex projects/systems/issues surrounding network planning, configuration and optimization.
- Hands on involvement in advanced network planning, network architecture design and engineering.
- Provides top tier support across organizations.
- Leading project teams that maintain and improve network operations.
- Knows, understands and follows company policy.
- Performs other duties as requested by supervisor.
- Adheres to industry specific local, state, and federal regulations, as applicable.
- Proactively and consistently support all efforts to simplify and enhance the customer experience.

EDUCATION AND EXPERIENCE:

- Minimum 3 years of experience as a Network Engineer in a Service Provider environment
- Associates Degree in I.T. server or network related field preferred but not required
- Advanced Cisco or Juniper Network Certifications preferred (CCNA, JNCIA, CCNP, JNCIP)
- Additional years of experience will be considered in lieu of certifications and/or education

KNOWLEDGE, SKILLS AND ABILITIES:

Required Skills

- 2-3 years direct experience configuring and troubleshooting OSPF in a service provider environment
- 2-3 years direct experience configuring and troubleshooting BGP
- 2-3 years experience with Cisco IOS and IOS-XR
- 2-3 years experience with Cisco ASA
- Proficiency in troubleshooting layer-2 and layer-3 network issues, i.e. spanning-tree, broadcast storms, routing loops, etc.
- 1-2 years experience with GPON or XGS-PON
- 1-2 years experience with SNMP, logging and network monitoring tools
- 2-3 years experience with fiber optics (optical transceivers, optical loss and loss budgets, etc.)
- In-depth understanding of NAT/CGNAT
- Experience with network design, network architecture, protocols and network topology
- Efficient knowledge in TCP/IP and the OSI Model
- Intermediate knowledge in using ticketing and software tools to support the current operations
- Experience with network designing software, such as Visio
- Ability to perform duties in a very fast paced environment and ability to learn new technology quickly
- Hands-on experience with network devices (rack and stack, cabling, linecard installation and replacement, etc)
- Ability to work with a team on projects as well as take on individual projects with limited supervision
- Motivation and willingness to learn
- 1-2 years Point-to-Point wireless and WiFi experience
- Attention to detail with excellent documentation skills
- Ability to produce MOPS and BOMS
- Advanced knowledge of related industry specifications and standards IEEE, ANSI, Physical Media (Single/Multimode Fiber, UTP, etc.), bridging, switching, routing, ethernet and transport technologies and protocols
- Advanced knowledge of TCP/IP to include advanced IPv4 and IPv6 subnetting and address structure, and routing protocol usage.
- Advanced knowledge and understanding of network design, network architecture, protocols, and network topology, to include FTTx and FWA technologies.
- Experience with network design, network architecture, protocols, and network topology
- Ability to perform duties in a very fast-paced environment and ability to learn new technology quickly

Desired Skills

- Proficiency with Linux Shell Script
- Proficiency with Python
- Experience with VMware and VCenter and virtualized server management
- Experience administering DHCP, DNS, and IPAM (DDI)
- Experience working with an Internet service provider

- Experience with Alcatel-Lucent, Juniper and/or Arista network equipment
- Understanding of restful API
- Industry and vendor specific certifications and training (Cisco, Calix, Alcatel-Lucent, etc.)
- Knowledge of industry products and services
- Advanced knowledge of optical systems, to include PON, CWDM and DWDM systems.
- Advanced knowledge of BGP routing and implementing redundant network solutions.

ESSENTIAL DUTIES/RESPONSIBILITIES:

(20% of time) Network Monitoring and Troubleshooting

1. Respond to network alerts and outages
2. Work escalated customer trouble tickets
3. Troubleshoot network related issues

(30% of time) Network Deployment and Upgrades

1. Rack/Stack and turn-up of network and/or server gear
2. Configure and test network equipment
3. Planned configuration changes to network equipment
4. Software and hardware upgrades

(20% of time) Network Maintenance

1. Participate in network planning sessions
2. Perform upgrades and changes during after-hours maintenance windows

(30% of time) Network Architecture and Design

1. Engineer new solutions or products based on internal and external customer requirements

SPECIAL REQUIREMENTS:

1. NC Driver's License is required.
2. Ability to understand and apply to REC standards.
3. Support an atmosphere of diversity and inclusiveness.
4. Must be able to Travel and work outside normal business hours periodically.
5. Participation in a rotating on-call schedule

OTHER FACTORS:

Supervision: Position has no line responsibility.

Responsibility: Decisions and duties have a moderate impact on Cooperative operations and are based on established policies and procedures. Knowledge of regulations, etc., as they apply to specific function and/or work group may be required.

Complexity: Problems are moderately complex. Methods and procedures are loosely defined and require judgment to apply them to the work. Work is varied. Tasks may be unrelated.

Communications: Requires communication for the purpose of developing or communicating plans, coordinating activities or advising others. Gaining acceptance and influencing others may be necessary.

WORKING CONDITIONS AND PHYSICAL REQUIREMENTS:

1. **Light work:** Exerting up to 20 pounds of force occasionally and/or a negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of force greater than that for Sedentary Work and the worker sits most of the time, the job is rated for light work.
2. **Walking:** Moving about on foot to accomplish tasks, particularly for long distances or moving from one work site to another.
3. The worker is subject to both environmental conditions: Activities occur inside and outside.

JOB DESCRIPTION ACKNOWLEDGEMENT:

This job description is not intended to be all-inclusive and other duties may be assigned, as required. Duties and scope of position may change based on needs of Cooperative. This job description does not constitute a written or implied contract of employment.

I have received, reviewed and fully understand the job description for Roanoke Connect, Network Engineer I. I further understand that I am responsible for the satisfactory execution of the essential functions described therein, under any and all conditions as described.

I understand that I will also be exposed periodically to Company Confidential Information and promise I will keep Company Confidential Information, whether or not prepared or developed by me, in the strictest confidence. I will not disclose such information to anyone outside Company without prior written consent of the owner of the information, nor will I make use of any Confidential Information for my own purposes or the benefit of person or entity other than Company.

Employee Name: _____ Date _____

Employee Signature: _____

Click here to Apply: [Roanoke Connect, Network Engineer I](#)

Position open until filled

This position is also listed on the HR SharePoint webpage.