Network Design Engineer – Transport & Voice

Position:	Network Design Engineer – Transport & Voice	**Type:**	Full Time
Hiring Mgr:	Director Network Engineering	**Onsite Status:**	Onsite
Location:	Kingston, NY or Warwick, NY	**Date Added:**	Feb 7, 2024

Position Summary

The Network Design Engineer – Transport & Voice is part of Archtop Fiber's Engineering & Technology group, and the role will support a variety of design needs for our network infrastructure and will provide expertise for optical transport and voice technologies – primarily VoIP but also traditional analog/TDM. This position will work closely with the Director Network Engineering and others to support our advanced 100% fiber optic communications service provider network. The Network Design Engineer will be an integral team member working to design and develop Archtop's IP/SR-MPLS backbone, XGS-PON access layer, internet peering, optical transport infrastructure, and other various network expansions and upgrades related to our multi-state fiber optic network and voice infrastructure.

What you'll do:

- Create implementation designs and required documentation, including Methods of Procedures (MOPs), diagrams, drawings, and various instruction details.
- Develop designs that align with Archtop's architectures for PON last-mile, IP/SR-MPLS backbone, and transport technologies.
- Perform tasks of high complexity related to the design, maintenance, and problem analysis of IP network access and IP transport equipment.
- Provide turnup and test information for new network builds and augmentations, with particular focus on DWDM optical transport and voice traffic transmission.
- Maintain detailed documentation of network elements, topologies, and device deployments.
- Support process development, documentation and support as needed to other teams for implementation, troubleshooting, and repair of network connections and customer deployments.
- Support equipment/materials vendor selection and maintain strong relationships with Archtop's vendors.
- Active participation in building, managing, and maintaining Archtop's Network Engineering lab to support all users and stakeholders.
- Foster a resilient network design approach that ensures redundancy and rapid failover.
- Develop customer service configurations that can be deployed via network automation and low-touch provisioning. Work collectively with Network Operations to ensure that configurations align with and meet the needs of provision platforms.
- Implement security requirements that align with Archtop's carrier-class network requirements, including protection against flooding, denial of service, etc.
- Ensure proper traffic management and optimization - traffic shaping, classification, policing, queuing, scheduling, etc.
- Assist Network Operations team objectives such as network management/element management, performance measurement, fault management, access security, and others.

- Create and maintain Best Practice documentation to capture our design, and deployment methodologies, network device configuration templates, and customer service configuration.
- Support technical product development and deployment, including Proof of Concept testing procedures with no predetermined bias. Carry out Alpha and Beta testing by working with Network Operations team members and others.
- Participate in annual budget planning for network projects and improvements.
- Assimilate, analyze, and correlate large amounts of forensic data from various network devices, operating systems, applications, security devices, logs, and alerts by leveraging analytical and problem-solving skills.

What you'll bring:

- 4+ years of progressive experience in network engineering or network architecture roles in a large network environment. Experience in a Service Provider (ISP/CSP) environment is strongly desired.
- Four-year Engineering, Computer Science, or comparable technology degree from an accredited college or university. Equivalent professional experience also considered.
- Professional level networking certifications are strongly desired but not required – CCNP Service Provider (or similar) preferred.
- Thorough knowledge of optical transport solutions, including coherent optics, passive muxes, amplification, RON, ROADM, and DWDM. Must stay current on fast changing optical transport technologies and methodologies.
- Strongly working knowledge of all aspects of OSI layers 1-4 is required.
- Knowledge of FTTx design and PON access technology GPON, XGSPON, OLT, and ONU is a plus.
- Knowledge of network tools and protocols including SNMP, TACACs+, radius, syslog, DHCP, VLANs, Spanning Tree, DNS, NAT, CGN, TCP, UDP, FQDN, SIP, MGCP, RTP, NTP, PTP, Sync-E, DWDM, SONET, TDM, and others.
- Knowledge and experience with Voice over IP technologies. This includes but is not limited to SIP trunks, soft switch feature servers, trunking gateways, session border controllers, SIP, RTP, and various voice codecs.
- Knowledge of network operating systems, such as IOS-XR, AOS, Linix.
- Must have a strong focus on quality and network sustainability (99.999% up time).
- Applicants must be a US citizen.
- Maintain a valid state driver's license and safe driving record.

What we offer (acquisition specific):

- Competitive salary – range for this opportunity is $100k to $120k
- Heavily subsidized medical, dental, and vision
- Holidays, PTO, and Flexible work schedules
- 401(k) w/ generous match
- Employee Assistance Program (EAP)
- Life insurance, short- & long-term disability insurance
- Employee Referral Program
- Employee discount programs

Archtop Fiber is proud to be an Equal Opportunity Employer. We celebrate diversity and are committed to creating a welcoming and inclusive environment for all.

Please apply directly Careers@Archtopfiber.com