Lead Network Security Engineer

Current Employee	
Department	Technology Services
FLSA Status	Exempt
Reports to:	Chief Technology Officer

JOB SUMMARY

The Lead Network Security Engineer focuses on ensuring the reliability, availability, and operational excellence of LEARN's WAN, ISP, and managed service environments, while guiding engineering execution across packet, optical, security, automation, and service operations domains. The Lead Network Security Engineer is responsible for the quality, consistency, and operational readiness of the enterprise-wide mission-critical systems and infrastructure.

This position operates within an IT service management environment and is accountable for technical coordination, quality control, and continuous improvement of IT processes, such as incident response, change execution, documentation, and member communications.

ESSENTIAL FUNCTIONS

- Design and implement advanced configuration and security policy/compliance of network routers, switches, and firewalls, as well as network management tools and related systems.
- Develop and execute technical and security plans, timelines, and milestones, including creation of conceptual and detailed secure solution designs, conducting impact and risk assessments, and analyzing alternatives.
- Provide technical leadership and guidance for network engineering activities, ensuring consistent execution aligned with architectural standards, operational processes, and service objectives.
- Review and validate technical designs, change requests, risks and impact assessments, implementation approaches, and engineering work products for accuracy, completeness, and operational readiness.
- Serve as technical point of contact for member requests, working closing with the Community Outreach and Engagement staff on new proposals, security audits or general questions which may arise.
- Provide technical leadership during service-affecting incidents, coordinating troubleshooting, escalation, and restoration activities across engineering teams, vendors, and service providers.
- Oversee operational process execution by monitoring incident response and restoration performance against service expectations, identifying process gaps, systemic issues, or documentation deficiencies, and driving continuous improvements.

- Ensure adherence to established documentation standards, including SOPs, MOPs, network designs, diagrams, security review, and system records.
- Continuously monitor network traffic and security logs using tools (e.g., SIEM, Snort, Wireshark) to detect anomalies and unauthorized access.
- Conduct regular vulnerability assessments, penetration testing, and audits to identify and patch system weaknesses before attackers exploit them.
- Act as the first line of defense during cyberattacks, investigating breaches, and executing containment, eradication, and forensic recovery plans.
- Develop corporate security policies and ensure the organization complies with regulatory standards and frameworks.
- Write scripts (e.g., Python) and utilize infrastructure-as-code tools (e.g., Ansible, Terraform) to automate network and/or security workflows and policy enforcement.
- Serve as point of contact with DDoS providers and Members for Incident Management and first line of staff defense during cyber-attacks.

OTHER DUTIES

- Operate and model, with a high degree of ownership, accountability, professionalism, and process discipline in a collaborative engineering environment, reinforcing a culture of ownership and continuous improvement.
- Provide mentoring, coaching, and day-to-day security and technical guidance to staff.
- Conduct peer reviews of engineering work and provide constructive feedback to support professional growth and operational discipline.
- Ensure timely, accurate, and consistent communications to LEARN members, and internal stakeholders during incidents and service degradation events.
- Serve as a technical SME and point of contact for LEARN and its members during security awareness, complex projects, incidents, and operational discussions.
- Translate security and technical issues, risks, and remediation plans into clear, actionable communications for non-technical audiences, as needed.
- Work closely with project management office, engineering peers, staff, vendors, and partners across K–12, higher education, and research networks.
- This position requires field work and provides escalation support for operational responsibilities, including on-call rotation and incident response.

This job description is not designated to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities, and activities may change at any time with or without notice.

EDUCATION & EXPERIENCE

- Bachelor's degree + 5 years' experience or 9 years of equivalent combination of education and experience.
- Network Engineering and Security certifications are preferred.

- Proven working experience with network routers and switches is required, (Juniper and Nokia experience is preferred).
- Proven working experience developing service-provider solutions, incorporating WAN router configurations utilizing logical systems, BGP in a multi-homed environment, IPv4, IPv6, ISIS, OSPF, MPLS, LACP, LDP, L2 and L3 VPN, VPLS, EVPN, QoS, 802.1q, 802.1p and IP Multicasting technologies.
- Deep understanding of networking protocols (TCP/IP, routing, switching) and defense-in-depth strategies spanning on-premises data centers and cloud infrastructures (AWS, Azure, GCP).
- Experience supporting optical transport systems, fiber-based infrastructure, and carrier-grade network environments.
- Experience with Next-Generation Firewalls (e.g., Fortinet, Juniper/HP, Palo Alto), VPN/SD-WAN, and security devices is required. Hands-on experience with SIEM platforms, and endpoint protection suites is strongly preferred.
- Proven experience with network management, monitoring systems, and automation tools (ex: perfSONAR, NetBox, LibreNMS, RANCID, Ansible, Python, Shell Scripting, etc.) and diagnostic tools commonly used within the service provider networks.
- Experience performing work in an enterprise data center environment is required, with carrier-grade Point-of-Presences (POPs) experience highly preferred.
- Proven knowledge of networking protocols, with a thorough understanding of TCP/IP, IPv4/v6 address management, and DNS.
- Strong familiarity with Linux or BSD system administration skills.
- Working knowledge of fiber optic wiring and transceiver troubleshooting and operating network test equipment.
- Familiarity with Cloud Computing technologies and delivery models.
- Familiarity with R&E (Research & Education) networks.

KNOWLEDGE, SKILLS & ABILITIES

- Performs work under minimal supervision.
- Handles complex issues and problems and refers the most complex issues to higher-level staff. Possesses comprehensive knowledge of subject matter.
- Provides leadership, coaching and/or mentoring to a subordinate group.
- Ability to lead technical teams during operational events and complex implementations.
- Excellent written and verbal communication skills, including member-facing communications.
- Strong organizational skills with attention to detail and quality control.
- Ability to mentor, coach, and influence peers without formal managerial authority.
- Demonstrated understanding of IT service management practices, including incident, change, and knowledge management.
- Demonstrated record of taking initiative to solve technical and logistical issues.
- Proven project development & implementation skills; network documentation experience and skills.

- Strong familiarity with Windows, Mac, Linux or BSD operating system and office productivity suite skills.
- Consistently admits when wrong or makes a mistake. Does not get defensive when others hold accountable.
- Proactively ask for feedback from others, evaluate the feedback, and be willing to make changes based on the feedback. When appropriate or requested, respectfully, professionally, and proactively give feedback to others.
- Know when to be flexible and when to be firm with the ability to pivot if necessary. Coach others that may struggle with adaptability.

PHYSICAL DEMANDS & WORK ENVIRONMENT

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 accommodation may be made to enable individuals with disabilities to perform the essential functions.

- Position Location: Strong preference is for this position to be based in the Dallas Metro area and operate from a home office in a virtual office environment. Work outside of an established schedule and working hours, including weekends and holidays, may be required.
- Travel Requirements: Moderate travel (up to 25%) is expected for this role. Travel includes visiting existing and future member venues and LEARN sites throughout Texas as well as Regional & National meetings and conferences in North America. Some overnight travel (up to 10%) is expected.
- Position requires reliable transportation, valid driver's license, and ability to travel by car or air.
- On-call availability for resolving network emergencies, both during regular and off-hours.
- Emergency on-call availability 24x7x365
- This role requires prolonged sitting and working on a computer in a home office setting.
- Regularly required to stand, walk, sit, use hands; and reach with hands and arms.
- Dexterity of hands and fingers to operate a computer keyboard, mouse, power tools, and to handle other computer components.
- Lifting and transporting moderately heavy objects, such as network switches, servers, computers, and peripherals
- Specific vision abilities required by the job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

To apply for this job, please submit a cover letter, resume, and application (found on the next page) in PDF format to jobs@tx-learn.net with "Lead Network Security Engineer" as the subject line.

LEARN
LONESTAR EDUCATION AND RESEARCH NETWORK

APPLICATION FOR EMPLOYMENT

AN EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER

Qualified applicants are considered for employment without regard to race, color, religion, gender, national origin, age, mental or physical disabilities, marital status, veteran status, sexual orientation, gender identity and/or expression, genetic information, or any other characteristic protected by applicable law. All employment decisions shall be consistent with the principles of equal opportunity employment. Accommodations to enable all individuals to participate in the application process may be provided upon advance request.

ANSWER ALL QUESTIONS - PLEASE PRINT

Applicant's Name (Last) (First) (Middle)*	Date of Application

Are you known by any other names or aliases, including a maiden name?* ☐Yes ☐No If Yes, what name(s) are you known by?

Applicant's Current Address (Address, City, State, Zip)*

Applicant's Email Address

Telephone	Date Available for Work
Position(s) Applied For (List Job Titles)	Status Desired ☐Full Time ☐Part Time ☐Temporary

Referral Source ☐Advertisement ☐Employment Agency _____ ☐College/Career Placement Office
☐Job Fair ☐Employee ☐Other

Have you filed an application or been employed here before? ☐Yes ☐No If yes give date(s)

Are you 18 years of age or older? ☐Yes ☐No	Are you eligible to be lawfully employed in the United States (proof of citizenship or immigration status will be required upon employment)? ☐Yes ☐No

Do you now, or will you in the future, require sponsorship for employment visa status (e.g., H-1B visa status, etc.) to work legally for our Company in the United States? ☐Yes ☐No

List any friends or relatives employed by the company.

What is the relationship?

Have you ever been convicted of a felony? ☐Yes ☐No

If yes, provide all detail**
**Conviction of a crime will not automatically disqualify you from employment.

EMPLOYMENT EXPERIENCE (List relevant work experience. Start with your present or last job. Include military service assignments and volunteer activities)

Date From/To	Employer Name		Employer Address	
	Employer Phone Number	Job Title	Starting Salary / Hrly Rate	Final Salary / Hrly Rate
1	Supervisor	Reason for Leaving		
	Work Performed			May we contact ☐Yes ☐No
	Are you known by another name ☐Yes ☐No	If yes, What name?		
Date From/To sdfs	Employer Name		Employer Address	
	Employer Phone Number	Job Title	Starting Salary/ Hrly Rate	Final Salary/ Hrly Rate
2	Supervisor	Reason for Leaving		
	Work Performed			May we contact ☐Yes ☐No
	Are you known by another name ☐Yes ☐No	If yes, What name?		

Date From/To	Employer Name	Employer Address		
	Employer Phone Number	Job Title	Starting Salary/ Hrly Rate	Final Salary/ Hrly Rate
3	Supervisor	Reason for Leaving		
	Work Performed		May we contact ☐Yes ☐No	
	Are you known by another name ☐Yes ☐No If yes, What name?			
Date From/To	Employer Name	Employer Address		
	Employer Phone Number	Job Title	Starting Salary/ Hrly Rate	Final Salary/ Hrly Rate
4	Supervisor	Reason for Leaving		
	Work Performed		May we contact ☐Yes ☐No	
	Are you known by another name or do you have a maiden name? ☐ Yes ☐ No If yes, What name?			

REFERENCES (List professional references only. Do not list friends or relatives)

Name and Title	Email Address / Phone Number

Education	Name and Address of School	Course of Study	Did you Graduate?	List Diploma / Degree
High School				
College				
Other (Specify)				

PRE-EMPLOYMENT STATEMENT

I represent that my responses set forth in this application are truthful, accurate, and complete. Any and all false or inaccurate statements made by me in this Application or otherwise during the employment evaluation process shall be grounds both for rejecting my Application for employment , and, should I be hired by LEARN, termination of my employment.

I authorize representatives of LEARN to contact education institutions and employers designated in this Application for purposes of verification and investigation of my education and employment background and performance. Such individuals and organizations are authorized to release all such persons from liability or damages incurred as a result of furnishing such information. I understand that an unsatisfactory reference shall be grounds both for rejecting my Application for employment, and should I be hired by LEARN, termination of my employment. Should I be employed by LEARN, I understand that I could be subject to an outside probe if accused of wrongdoing.

Submission of the application does not entitle me to be interviewed by LEARN. Further, nothing in this Application or in the employment evaluation process shall be construed as either an offer of employment or an obligation on the part of LEARN to provide any benefit to me. Should I be employed by LEARN, I agree to comply with any and all employment rules and policies of LEARN.

After reading all of the terms of this Application, I hereby affirm that I understand and agree to the provisions of the same. I also agree that my employment with LEARN is on an "at-will" basis, meaning that such employment may be permanently discontinued by either LEARN (through discharge or layoff) or myself through voluntarily quitting at any time without notice and without any recourse of any kind by either party.

I affirm the information in this application is true and complete, and any intentional deception herein may be considered sufficient cause for dismissal.

Date* _____ **Applicant's Signature*** _____

Required