

Optical Engineer – Position Description

The Lonestar Education and Research Network (LEARN) is a consortium of 41 organizations throughout Texas that includes public and private institutions of higher education, community colleges, the National Oceanic and Atmospheric Administration (NOAA), Texas State Library and Archives Commission (TSLAC), and K-12 public schools. The consortium, organized as a 501(c)(3), connects these organizations, and over 300+ affiliated organizations, together with high performance optical network services to support their research, education, healthcare, and public service missions. LEARN provides Layer 1 and MPLS transport services. It also provides IP connectivity to a global research network through Internet2 and other networks, and commercial Internet services (CIS) to its members.

Position Location: This position requires the candidate to operate from a home office in a virtual office environment. Candidate location can be in the Central, North and Southeast regions of Texas or be willing to relocate to meet LEARN's location requirement.

Travel Requirements: Travel to LEARN POPs and member locations throughout the State of Texas regularly. Travel to events and meetings outside of Texas occasionally.

Salary Range: Salary commensurate with experience.

Responsibilities and Duties:

- Provide engineering and support services to LEARN customers and members. LEARN operates a high-speed Wide Area Network (WAN) and ISP environment consisting of circuits, multiplexers, routers, network switches and servers.
- Provide project planning, implementation, and successful execution of projects including technical network design, and develop detailed network documentation.
- Isolate and diagnose root causes of hardware and software issues and develop and carry out a plan of action for timely problem resolution.
- Provide second and third level network support. Troubleshoot physical and optical connections, and isolate problems with network interfaces, transponders, multiplexers, amplifiers, DWDM line and client optics.
- Design and implement advanced configuration of network and transport systems, including 1Gb/s, 10Gbs, 40Gb/s, and 100Gb/s ethernet circuits.
- Design and implement co-location space, power, and fiber systems. Design and implement cross-connects among systems.
- Interact and collaborate with vendors and contractors for product/platform evaluation, technical implementation and planning, and procuring network products and services.
- Develop, implement, and maintain standard operational procedures and established standards.

The individual will work in a small team environment but will have significant interaction with members ranging from K-20, higher education and other networks. Frequent interaction with network, fiber & service providers, with other regional and national networks, with content & cloud providers, and with application & infrastructure providers.

Position Qualifications:

Required Qualifications:

- Bachelor's degree with minimum of 5 years of experience working directly with complex network environments or 10 years of professional experience in advanced service provider network environment
- Demonstrated team building abilities
- Demonstrated record of taking initiative to solve technical and logistical issues
- Proven oral and written communication skills including the use of collaboration suite of tools.
- Proven experience with advanced service provider and WAN optical technologies, including advanced fiber optic networks, in house and outside plant fiber systems, and Wave Division Multiplexing (DWDM, CWDM). Familiarity with Coherent Detection and modem modulation techniques
- Fiber optic troubleshooting knowledge and experience with variety of test equipment. Working knowledge of fiber and networking tools, including spectrum analyzer, OTDR, Chromatic Dispersion, BER test sets
- Proven working experience with Ciena and ADVA Optical, and common Metro Ethernet systems
- Proven experience with network management and monitoring systems (ex: PerfSonar, NetBox, LibreNMS, Rancid, etc.) and diagnostic tools commonly used within the service provider networks
- Proven project development & implementation skills; network documentation experience and skills

Preferred Qualifications:

- Knowledge of WAN routing protocols & technologies (ex: BGP, ISIS, OSPF, MPLS, LACP, LDP, VPN, VPLS, QoS)
- Knowledge of networking protocols, with a thorough understanding of TCP/IP, IPv4/v6 address management and DNS
- Linux or BSD system administration skills
- Familiarity with co-location and Internet Exchange point practices and policies
- Prior experience working with R&E networks

Work Conditions:

- On-call availability for resolving network emergencies, both during regular and off-hours.
- Emergency on-call availability 24x7x365
- Sitting for extended periods of time

- Driving among POP and member locations would be required; e.g. 6+ hour drive to West Texas POP or member site.
- Dexterity of hands and fingers to operate a computer keyboard, mouse, power tools, and to handle other computer components
- Lifting and transporting of moderately heavy objects, such as network switches, computers, and peripherals

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 "Network Engineer" as the subject line.

This Organization Participates in E-Verify



This employer will provide the Social Security Administration (SSA) and, if necessary, the Department of Homeland Security (DHS), with information from each new employee's Form I-9 to confirm work authorization.

IMPORTANT: If the Government cannot confirm that you are authorized to work, this employer is required to give you written instructions and an opportunity to contact DHS and/or the SSA before taking adverse action against you, including terminating your employment.

Employers may not use E-Verify to pre-screen job applicants and may not limit or influence the choice of documents you present for use on the Form I-9. To determine whether Form I-9 documentation is valid, this employer uses E-Verify's photo matching tool to match the photograph appearing on some permanent resident cards, employment authorization cards, and U.S. passports with the official U.S. government photograph. E-Verify also checks data from driver's licenses and identification cards issued by some states.

If you believe that your employer has violated its responsibilities under this program or has discriminated against you during the employment eligibility verification process based upon your national origin or citizenship status, please call the Office of Special Counsel at 800-255-7688, 800-237-2515 (TDD) or at www.justice.gov/crt/osc.

E-Verify Works for Everyone

For more information on E-Verify, please contact DHS:

888-897-7781

www.dhs.gov/E-Verify





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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 N | Applicant's Name (Last) (First) (Middle)* | | | | | Date of Ap | 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 E | mail Address | | | | | | | | | |
| Date of Birth* | | | Telephone Da | | Date Available for Wo | Date Available for Work | | | | |
| Position(s) Applied For (List Job Titles) Status Desired Full Time Part Time | | | | | | | | | | |
| Referral Sour | ce Advertisement | Employment Agency | | | College/Career Placement O | | | | | |
| | Job Fair Employee | | | Other | | | | | | |
| Have you filed an application or been employed here before? Yes No If yes give date(s) | | | | | | | | | | |
| Are you 18 ye Yes No | years of age or older? 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. | | | | | | | | | | |
| EMPLO | YMENT EXPERIENCE | List relevant | work experience. Start wi | th your present | or last jo | b. Include military service | e assignmen | ts and volunteer activities) | | |
| Date From | Employer Name | nployer Name | | | Employer Address | | | | | |
| Date To | Employer Phone Number Job Title | | | Starting Salary / Hrly Rate | | | Final Salary / Hrly Rate | | | |
| | Supervisor Reason for Leaving | | | | | | | | | |
| 1 | Work Performed | | May we contact Yes No | | | | | | | |
| | Are you known by another name Yes No If y | | | es, What name | ? | | | | | |
| Date From | Employer Name | | | Employer Address | | | | | | |
| Date To | Employer Phone Number | | Job Title | | Sta | urting Salary / Hrly Rate | | Final Salary / Hrly Rate | | |
| | Supervisor | | Reason for Leaving | | | | | | | |
| 2 | Work Performed | | | | May we contact Yes | | | contact Yes No | | |
| | Are you known by another na | me Yes | No If y | es, What name | ? | | • | | | |

| Date From | Employer Name | Employer Address | | | | | | | | | | | | |
|--|---|------------------------|-----------------|-----------------------------|--------------------------|-----------------------|--|---------------|--|--|--|--|--|--|
| Date To | Employer Phone Number | Job Title | | Starting Salary / Hrly Rate | Final Salary / Hrly Rate | | | | | | | | | |
| | Supervisor | or Reason for Leaving | | | | <u> </u> | | | | | | | | |
| 3 | Work Performed | | | | | May we contact Yes No | | | | | | | | |
| | Are you known by another name Yes No If yes, What name? | | | | | | | | | | | | | |
| Date From | Employer Name | | | | | | | | | | | | | |
| Date To | Employer Phone Number | Job Title | | Starting Salary / Hrly Rate | e Final Salary / Hrly | | | y Rate | | | | | | |
| | Supervisor | Reason for Leaving | | | | | | | | | | | | |
| 4 | Work Performed | May we contact Yes No | | | | | | | | | | | | |
| | Are you known by another name or d | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| REFERENCES (List professional references only. Do not list friends or relatives) Name and Title Address / Phone Number | | | | | | | | | | | | | | |
| | | Address / Phone Number | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Education | Name and Add | ress of School | Course of Study | | | Did you List | | | | | | | | |
| | Name and Add | | | Course of Study | | Graduate? Dip | | oma / gree | | | | | | |
| High School | | | | | | | | | | | | | | |
| College | | | | | | | | | | | | | | |
| Other (Specify) |) | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | PRE-EMPLOYMENT | | | | | | | | | | | | |
| 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 Company, termination of my employment. | | | | | | | | | | | | | | |
| I authorize representatives of Company to contact educational institutions and employers designated in this Application for purposes of verification and investigation of my educational and employment background and performance. Such individuals and organizations are authorized to release such information as may be requested by a Company representative. I hereby 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 Company, termination of my employment. Should I be employed by Company, 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 Company. 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 Company to provide any benefit to me. Should I be | | | | | | | | | | | | | | |
| employed by Company, I agree to comply with any and all employment rules and policies of Company. | | | | | | | | | | | | | | |
| 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 the Company is on an "at-will" basis, meaning that such employment may be permanently discontinued by either the Company (through discharge or lay/off) 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 S | ionature* | | | | | | | | | | | |

*Required for Background Check