



JOB INFORMATION

Job Code:	167561
Job Title:	Network Engineer (ITS)
FLSA Status:	Exempt
Supervisory:	
Job Family:	Network Administration
Job Family Group:	Information Technology
Management Level:	7 Individual Contributor

JOB SUMMARY

Provides network engineering and technical support for LAN, WAN, and network infrastructure, ensuring university network systems are operating at peak efficiency with little or no downtime. Designs, configures, troubleshoots, and maintains university network equipment across multiple platforms. Ensures that all networking activities are aligned to industry best practices, as well as ITS and university policies, processes, and procedures. Provides technical and training assistance to other ITS teams, as needed. Demonstrates ITS values in action.

JOB QUALIFICATIONS:

Education

Req	Pref	Degree	Field of Study
X		Bachelor's degree	
	X	Bachelor's degree	

Additional Education

Check here if experience may substitute for some of the above education.

Combined experience/education as substitute for minimum education

Work Experience

Req	Pref	Work Experience	Experience Level
X		4 years	
	X	2 years	

Additional Work Experience

Check here if education may substitute for some of the above work experience.

Combined experience/education as substitute for minimum work experience

Knowledge, Skills and Abilities

Req	Pref	Functional Skills
X		Experience with enterprise networking technologies, tools and processes, including routing and switching, L4-7 traffic management (e.g., load balancing), firewalls, data-center fabric, campus networks, VoIP, wireless, network admission control (NAC), virtualization, and hybrid cloud.
X		Proficient with network operating systems including Arista EOS, Cisco IOS/XE/XR, Aruba AOS, and Linux, or similar.

Knowledge, Skills and Abilities

Req	Pref	Functional Skills
X		Experience with L2 protocols including STP, DHCP, 802.1X, LACP, MLAG, VXLAN bridging, etc.
X		Proficient with addressing mechanisms (DNS, DHCP, IPAM, or similar), and practical experience with L1 technologies (SMF, MMF, DWDM, Transceivers, AOC, Twinax, Fiber fan-outs, or similar).
X		Firm understanding of TACACS/RADIUS, and experience with network traffic analysis for troubleshooting (tcpdump, Wireshark, Netflow/sFlow, iperf, etc.).
X		Exposure to or experience with programming/scripting languages used to automate networks (e.g., Python, Ansible).
X		Experience with L3 protocols and techniques, including MP-BGP, OSPF, VXLAN routing, VRFs, VRRP, and VARP, or similar.
X		Ability to engage with third-party vendors, including evaluating multiple vendor data products, documenting test plans, assisting in vendor selection, and developing deployment workbooks.
X		Experience with other network protocols and methods, including Traffic Engineering, NAT, TCP/IP, Multicast, and IPv6.
X		Ability to create presentation materials, generate reports, and present them to leadership.
X		Experience with firewall configuration and administration.
	X	Bachelor's degree in computer science, computer information systems, information technology, or relevant field.
	X	CCIE and CCNP certifications. Experience in IT and/or network engineering.
	X	Experience with Ethernet VPN (EVPN), in-depth knowledge with SolarWinds Orion (or other NMSs), Fortinet, and ClearPass.

Certifications

Req	Pref	Select Certifications	Enter Additional Certifications
	X	Cisco Certified Internetwork Expert (CCIE)	
	X	Cisco Certified Network Professional (CCNP)	

Other Job Factors

JOB ACCOUNTABILITIES

	% Time	Essential	Marginal	N/A
Works collaboratively with others within ITS and other university departments to deliver highly reliable network services. Proactively creates and maintains detailed written documentation. Openly shares experience and subject-matter expertise with co-workers through written and oral presentations. Provide timely communications to stakeholders, technical staff, and management as required.				
Collaborates with team members to establish project plans, schedules, and priorities. Participates in the development, implementation, and maintenance of policies, procedures, and associated training plans for network administration, operations, and disaster recovery. Creates custom scripts to improve network efficiency and enhance network automation.				
Engages appropriate customers to resolve network issues. Consults with university departments to determine device suitability and capability for campus network connections, in accordance with approved network and security policies.				
Maintains currency with new and emerging technologies and approaches, leveraging the latest industry knowledge to identify opportunities for innovation and continuous improvement. Pursues information on new network engineering developments, reading journals and other pertinent publications, talking with vendors, and participating in professional organizations, meetings, conferences, seminars and training courses.				
Configures, installs, and maintains network devices. Ensures high network availability, reliability, security, and other performance attributes based on best-in-class service levels. Provides hands-on, proactive and reactive maintenance, and troubleshooting support. Provides subject-matter expertise for Tier 1- and Tier 2- service teams. Executes campus network architecture, design, implementation, and network operations by ensuring alignment with ITS and campus security requirements. Tracks key metrics by configuring and maintaining a proactive Network Monitoring System that leverages existing tools and leading-				

JOB ACCOUNTABILITIES

	<i>% Time</i>	<i>Essential</i>	<i>Marginal</i>	<i>N/A</i>
edge practices. Participates in day-to-day network operations (e.g., upgrading and applying software updates and patches to network devices).				
Actively participates in the identification of root causes to network issues, recommending or effecting realistic solutions. Analyzes network data and statistics to both proactively and reactively resolve network issues. Collaborates with industry experts and vendors to find and implement effective technology applications. Solves complex, vendor-specific problems, and submits bug reports to vendors.				
Aids the cultivation of an inclusive environment and a culture of trust and transparency, sharing information broadly, openly, and deliberately. Builds and maintains collaborative relationships with diverse groups of peers, team members, and leadership. Actively embodies ITS values and behaviors (e.g., accountability, ethics, best-in-class customer service).				
Collaborates with team members and management, implementing effective solutions to support the network engineering team's vision. Maintains currency with technology, standards, and best practices. Supports process improvement efforts within the team and across the ITS organization.				

Other Requirements

<i>Essential:</i>	<i>Emergency Response/Recovery</i>	<i>Essential:</i>	<i>Mandated Reporter</i>
	In the event of an emergency, the employee holding this position is required to "report to duty" in accordance with the university's Emergency Operations Plan and/or the employee's department's emergency response and/or recovery plans. Familiarity with those plans and regular training to implement those plans is required. During or immediately following an emergency, the employee will be notified to assist in the emergency response efforts, and mobilize other staff members if needed.		A mandated reporter who in his or her professional capacity has knowledge of, or reasonably suspects a person who is under the age of 18 years, elderly, or a dependent adult has been the victim of abuse or neglect must report the suspected incident. The reporter must contact a designated agency immediately or as soon as practically possible by telephone or in writing within 36 hours. By virtue of the associated job duties, this position qualifies as a mandated reporter as required by state law and USC's policy at: https://policy.usc.edu/mandated-reporters/
<i>Campus Security Authority (CSA)</i>			<i>Essential:</i>
By virtue of the associated job duties, this position qualifies as a Campus Security Authority as required by law and USC's policy at: https://dps.usc.edu/alerts/clery/			No

ACKNOWLEDGMENTS

The above statements reflect the essential and non-essential functions as necessary to describe the principle contents of the job. They are not intended to be a complete statement of all work requirements or duties that may be required of the position. I understand that I may be asked to perform other duties as assigned. USC reserves the right to add or change duties at any time.

The University of Southern California is an Equal Opportunity Employer. USC prohibits discrimination on any basis protected under federal, state, or local law, regulation, or ordinance or university policies. All employment decisions are based on individual qualifications and business need.

I acknowledge receipt of this job description and its associated physical requirements. I have read and understand the job description and job requirements and agree to abide by their contents. I realize that duties may be requested of me that are not specifically stated herein. I understand that I will be expected to adjust to potential fluctuations in work volume. I understand that, if I have any questions about the essential functions or expectations of my position, my supervisor and/or HR partner are available to discuss them with me.

Print Employee Name

Signature

Date

Print Manager Name

Signature

Date

This job description describes the general nature and level of work required by the position. It is not intended to be an all-inclusive list of qualifications, skills, duties, responsibilities or working conditions of the job. The job description is subject to change with or without notice, and Management reserves the right to add, modify or remove any qualification or duty. Nothing in this job description changes the existing at-will employment relationship between the university and the employee occupying the position.