



Lead Network Engineer, Los Nettos

Job Description

JOB INFORMATION

<i>Job Code:</i>	165603
<i>Job Title:</i>	Lead Network Engineer, Los Nettos
<i>FLSA Status:</i>	Exempt
<i>Supervisory:</i>	May supervise staff, student, temporary or resource workers.
<i>Job Family:</i>	Network Administration
<i>Job Family Group:</i>	Information Technology
<i>Management Level:</i>	7 Individual Contributor

JOB SUMMARY

Designs and implements innovative best-in-class network solutions to advance the goals of Los Nettos Regional Network. Works on multiple complex technical projects simultaneously to further network refresh and future service portfolio strategy across multiple universities and external colocation facilities within Southern California. Conceptualizes and leads the design, configuration, and maintenance efforts of multi-service Los Nettos infrastructure. Ensures all networking activities are aligned with industry best practices and ITS/university policies and procedures.

JOB QUALIFICATIONS:

Education

<i>Req</i>	<i>Pref</i>	<i>Degree</i>	<i>Field of Study</i>
X		Bachelor's degree	
	X	Master's degree	

Additional Education

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

<input type="checkbox"/>	Combined experience/education as substitute for minimum education
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Work Experience

<i>Req</i>	<i>Pref</i>	<i>Work Experience</i>	<i>Experience Level</i>
X		5 years	
	X	7 years	

Additional Work Experience

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

<input type="checkbox"/>	Combined experience/education as substitute for minimum work experience
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Knowledge, Skills and Abilities

<i>Req</i>	<i>Pref</i>	<i>Functional Skills</i>
X		Extensive experience with L3 protocols (e.g., BGP, OSPF, VRF), L2 protocols (e.g., STP, LACP), and the TCP/IP protocol suite.

Knowledge, Skills and Abilities

Req	Pref	Functional Skills
X		Expert knowledge of optical networking, including use of multi-degree flex-grid CDC DWDM systems.
X		Substantial experience with network media (e.g. copper, fiber) and transceivers.
X		Firm understanding of and experience with security best practices (e.g., VPN, firewall, encryption), Linux server management, and allied software and applications.
X		Extensive experience with Cisco, Arista and Ciena switches, routers, optical platforms, and DNS (BIND), MySQL, Apache, Perl, Python, and C. Significant understanding of data center operations, peering policies and internet exchange best practices.
X		Considerable experience providing and using colocation services.
X		Ability to develop positive working relationships and strong rapport with team members.
X		Solid collaboration, communication, and project management skills, with proven experience delivering reliable and quality network service within a higher education and/or service provider environment.
	X	Master's degree or higher in computer science, computer information systems, information technology, or relevant field.
	X	CCIE or CCNP certification.
	X	Network engineering in Service Provider and/or Research and Education regional network environment, data center networking, and with internet peering exchanges.

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
Provides network expertise, proactively and reactively resolving the most complex inter-network issues with state and national Research and Education (R&E) networks and with commodity internet and domestic and international peering partners. Identifies root causes of network issues. Delivers best-in-class wide-area network services to external Los Nettos customers and Los Nettos member universities and institutions, crafting detailed project plans and successfully executing the project plans.				
Defines and develops procedures for network operations and disaster recovery. Leads and drives the development, implementation, and maintenance of the technical environment, creating custom tools to improve operations, network automation, and monitoring. Produces advanced performance status reports as needed.				
Oversees complex inter-jurisdictional projects for the Los Nettos Regional Network, researches and designs advanced network architecture befitting regional internet service provider (e.g., DWDM optical and packet network solutions, cloud services). Provides expert consultative services and develops novel and effective solutions to complex problems.				
Serves as a technical lead in interfacing with assigned stakeholders (e.g., global IP transit providers, colocation facility operators, content and cloud providers). Provides expert traffic engineering and network security techniques between transit, exchange, and partner networks. Evaluates and recommends on all technical matters pertaining to procurement and use of facility, cross-connects, circuits, dark fibers, and technology services.				
Contributes to group administration, authoring, presenting and maintaining documentation for the Los Nettos board of directors, technical committee and Los Nettos associates. Presents technical papers at regional and national conferences. Directs website development and maintenance, DNS and Hostmaster functions, and leads the information repository efforts.				
Collaborates with industry experts and vendors to identify and implement leading-edge applications of technology. Maintains currency with technology, standards,				

JOB ACCOUNTABILITIES

	% Time	Essential	Marginal	N/A
and best practices. Promotes an environment that fosters inclusive relationships and creates unbiased opportunities for contributions through ideas, words, and actions that uphold principles of the USC Code of Ethics.				

Other Requirements

Essential:	Emergency Response/Recovery	Essential:	Mandated Reporter
	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/
Campus Security Authority (CSA)			Essential:
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.