



USC University of
Southern California

Network Engineer, Los Nettos Job Description

JOB INFORMATION

Job Code:	165601
Job Title:	Network Engineer, Los Nettos
FLSA Status:	Exempt
Supervisory:	
Job Family:	Network Administration
Job Family Group:	Information Technology
Management Level:	7 Individual Contributor

JOB SUMMARY

Provides engineering and support services in the operations of the Los Nettos Regional Network in Southern California region. Assists in the design, configuration, troubleshooting, and maintenance of network equipment within the Los Nettos infrastructure encompassing multiple independent external universities and organizations. Ensures all networking activities are aligned with industry best practices and department/university policies and procedures.

JOB QUALIFICATIONS:

Education

Req	Pref	Degree	Field of Study	
X		Bachelor's degree		
	X	Bachelor's degree		In
	X		Computer Science	Or
	X		Computer Information Systems	Or
	X		in related field(s)	

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		2 years		
	X	4 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 L3 protocols (e.g., BGP, OSPF), L2 protocols (e.g., STP), and the TCP/IP protocol suite.
X		Exposure to DWDM optical networking. Hands-on 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		Practical experience with Cisco, Arista and Ciena switches, routers, optical platforms, and DNS (BIND), MySQL, Apache, Perl, Python, and C.
X		Understanding of data center operations, peering policies and internet exchange best practices.
X		Exposure to or experience with 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	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 support, isolating and diagnosing root causes of network issues with regional and national Research and Education (R&E) networks and with commodity internet and domestic and international peering partners, carrying out a plan of action for timely problem resolution. Supports best-in-class wide-area network services to external customers and Los Nettos member universities, providing project plans, and accelerating progress.				
Plays an active role in implementing multi-service network solutions (e.g., cloud services, Spectrum-as-a-Service, private peerings). Participates in the implementation of DWDM, switched, and routed network architecture in support of Los Nettos community within the Los Angeles region. Works collaboratively with internal and external stakeholders to achieve shared objectives.				
Works closely with service providers to efficiently and effectively utilize the acquired services in IP transit, internet exchange, colocation data center, and dark fibers and circuits. Performs route optimizations, network security tasks, network software updates and equipment installations at multiple external sites. Maintain up-to-date documentation of circuits, power, space, and other assets.				
Assists in the development of custom tools to improve operations and network automation. Monitors and produces regular performance status reports. Supports the documentation for the Los Nettos technical committee and customers. Present technical papers at regional conferences. Supports website development and maintenance and DNS and Hostmaster functions.				
Seeks out effective technology from peers and industry experts to address existing and potential future technical deficiencies. Maintains currency with technology, standards, 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

<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.