



## JOB INFORMATION

Job Code:	166478
Job Title:	Network Architect
FLSA Status:	Exempt
Supervisory:	May supervise student, temporary and/or resource workers.
Job Family:	Network Operations
Job Family Group:	Information Technology
Management Level:	8 Individual Contributor
Network Architect	

## JOB SUMMARY

Builds large-scale systems and implements innovative products for network infrastructure.

## JOB QUALIFICATIONS:

### Education

Req	Pref	Degree	Field of Study	
X		Bachelor's degree		
	X	Bachelor's degree		In
	X		Computer Science	Or
	X		in related field(s)	Or
	X	Master's degree		In
	X		Computer Science	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		8 years	in business, IT architecture, engineering or other relevant fields.	
	X	10 years	building, securing and deploying large-scale networks.	

### 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		Extensive experience in cloud networking with routing and switching mastery.
X		Demonstrated knowledge of multi-vendor and open-source system architecture and design.
X		Experience switching ASICs from multiple providers.
X		Proficiency with TCP/OP, routing protocols and large-scale network features.
X		Extensive experience with network tuning, optimization and security mechanisms.
X		Demonstrated knowledge of cabling, fiber plants, power and cooling.
X		Experience deploying and scaling overlay technologies (e.g., VXLAN, GRE, IPSec).
X		Experience leading enterprise architecture, analysis and design projects.
X		Demonstrated ability to identify valuable ways of incorporating new technologies (e.g., machine learning) into existing workflows.
X		Excellent interpersonal skills, able to work successfully with multiple teams across an organization.
X		Proficient written and oral communication skills, able to deliver presentations to diverse audiences.
X		Demonstrated analytical and quantitative skills, able to use data to back up assumptions and opinions.
X		Experience managing complex contracts and budgets with large scale vendors and service providers.
X		Demonstrated ability to handle competing priorities and initiatives, quickly-changing priorities, and high customer expectations.
X		Expertise in systems design, building user relationships, data gathering techniques, and management information systems.
	X	Extensive experience with public/private cloud architecture.
	X	Proven experience with configuration and enterprise management platforms (e.g., Puppet, Ansible, Oracle Cloud EPM).
	X	Experience leading engineering projects/teams.
	X	Proficiency with programming languages, techniques, frameworks (e.g., Swift, Python).
	X	Demonstrated experience designing, implementing, and evaluating AI tools, models, and prototypes.
	X	Hands-on experience building with generative AI and LLMs (e.g., ChatGPT, Copilot, Perplexity).
	X	Knowledge of industry best practices for developing and deploying AI systems.
	X	Proficient in varied data visualization software (e.g., Azure, Tableau, SmartSheet).

## Certifications

Req	Pref	Select Certifications	Enter Additional Certifications
X			At least one relevant certification (i.e., CCIE, ACE:L6, CISSP, OSCP, CCDE, CWDP, AWS).
	X		Arista Design and Architecture ACE:L6.
	X		Certified Information Systems Security Professional (CISSP).
	X		Offensive Security Certified Professional (OSCP).
	X		Cisco Certified Design Expert (CCDE).
	X		Certified Wireless Design Professional (CWDP).
	X		AWS Solutions Architect.
	X		Juniper Networks Certified Internet Expert (JNCIE) and/or similar certification.
	X		CE, RHCE, VCP (VMWare) or equivalent certification.

## Other Job Factors

## JOB ACCOUNTABILITIES

	% Time	Essential	Marginal	N/A
Creates and deploys basic frameworks for architectural plans and lifecycle management (e.g., roadmaps, value targets, risk considerations). Develops, communicates and implements protocols (e.g., guidelines, testing, standards) aligned with technical requirements and strategies. Provides support during solution deployment.				

## JOB ACCOUNTABILITIES

	<i>% Time</i>	<i>Essential</i>	<i>Marginal</i>	<i>N/A</i>
Plans and grows system capabilities, supporting key initiatives (e.g., artificial intelligence, data governance) to maximize efficiencies. Creates scripts, workflows, reports and presentations, providing analysis of complex requirements and security solutions. Reviews and analyzes existing infrastructures and their ability to support business objectives.				
Partners with stakeholders and navigates inbound/outbound functions while developing a library of technical assets showcasing services. Participates in integration efforts, ensuring they are completed on time, within budget, and meet compliance and quality standards. Helps with disaster recovery exercises to create and maintain secure environments.				
Serves as a subject matter expert, providing advice, insights and recommendations to senior executives and cross-functional teams. Monitors network capacity and performance problems. Troubleshoots, diagnoses and resolves issues. Anticipates pain points and advises on assumed risk.				
Configures and maintains hardware/software (e.g., routers, switches, firewalls). Stays current with emerging technologies, industry trends and modernized best practices. Evaluates products and opportunities for their impact on systems and standards.				
Provides guidance to project teams, ensuring overall fit with priority strategies. 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: <a href="https://policy.usc.edu/mandated-reporters/">https://policy.usc.edu/mandated-reporters/</a>
<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: <a href="https://dps.usc.edu/alerts/clery/">https://dps.usc.edu/alerts/clery/</a>			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.