



**USC** University of  
Southern California

## Senior Network Architect (ITS)

### Job Description

#### JOB INFORMATION

Job Code:	166479
Job Title:	Senior Network Architect (ITS)
FLSA Status:	Exempt
Supervisory:	
Job Family:	Network Operations
Job Family Group:	Information Technology
Management Level:	7 Individual Contributor

#### JOB SUMMARY

Designs, develops, and maintains a secure network for the university. Responsible for conceptualizing network architecture, identifying business requirements, creating designs and prototypes, and executing testing and training activities. Establishes overall network standards, guidelines, leading-edge practices, and approved network techniques and approaches. Acts as a thought leader for the organization's network vision and goals, and demonstrates ITS values in action.

#### JOB QUALIFICATIONS:

##### Education

Req	Pref	Degree	Field of Study
X		Bachelor's degree	
	X	Master'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		8 years	in network engineering, network architecture, or related fields.
	X	10 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		Proven knowledge of LAN/WAN/MAN/wireless/VoIP/cloud networking protocols.
X		Proven experience with Backbone and campus design, wireless network design, on-premises load balancing, security architecture, and/or cloud architecture in large, complex user environments.

## Knowledge, Skills and Abilities

Req	Pref	Functional Skills
X		Demonstrated expertise in network design optimization and spine/leaf architecture, with experience building scalable, diverse and complex networks.
X		Proven multicast and QoS skills.
X		Experience working with software development life cycle (SDLC) models.
X		Demonstrated experience in server architecture, system administration, and security, and ability to explain advanced concepts to engineers, peers and leadership.
X		Proven experience monitoring systems and security appliances.
X		Demonstrated experience with voice technologies in a VoIP environment, and with scripting languages (e.g., Python, Perl).
X		Experience working in project-based environments, reporting on project status, evaluating project risks, and escalating project issues.
X		Ability to generate reports, create presentation, and present to appropriate stakeholders, including leadership.
X		Experience with risk analysis framework.
X		Ability to effectively communicate, negotiate, and collaborate with others in a large, diverse organization.
	X	Demonstrated experience with virtualization and high-density containers networking Docker and Kubernetes.
	X	Proven experience with scripting languages (e.g., Python, Perl).
	X	Multiple CCIE or JNCIE enterprise, service provider, security, data center, wireless, or voice certifications.

## Certifications

Req	Pref	Select Certifications	Enter Additional Certifications
X			Offensive Security Certified Professional (OSCP)
X			Certified Information Systems Security Professional (CISSP)
X		Cisco Certified Internetwork Expert (CCIE)	
X			Cisco Certified Design Expert (CCDE) certification
X			Juniper Networks Certified Internet Expert (JNCIE) and/or similar certification.
	X		Cisco Certified Design Expert (CCDE)
	X		CE, RHCE, VCP (VMWare) or equivalent certification

## Other Job Factors

## JOB ACCOUNTABILITIES

	% Time	Essential	Marginal	N/A
Conceptualizes network architecture by identifying business requirements, designs, prototypes, and conducting testing, activities, and training. Develops overall network standards, guidelines, leading-edge practices, and approved network techniques and approaches. Performs network modeling and planning, and maximizes network efficiencies. Leverages the latest industry knowledge and takes the initiative to experiment with new ideas and technologies.				
Reviews and analyzes existing network infrastructure and its ability to support strategic organizational objectives and goals. Develops testing and implementation strategies, and assists in the development of network technology roadmaps. Troubleshoots and diagnoses network problems, and implements solutions while meeting business objectives. Participates in disaster recovery planning, development, exercises, testing, and actual disaster or emergency events, working in collaboration with security and other teams to create and maintain a secure infrastructure.				
Identifies operational and business value opportunities, for customers, partners, and key stakeholders in administrative and academic units. Gains insight and anticipates customer pain points, challenges, and needs. Advises on risk assumptions for any variances granted, and provides alternatives to achieve desired end results.				
Supports the network engineering team's vision and goals, acting as a thought leader for the organization. Maintains currency with technology, standards, and				

**JOB ACCOUNTABILITIES**

	<i>% Time</i>	<i>Essential</i>	<i>Marginal</i>	<i>N/A</i>
best practices, and works closely with management and team members to implement and support integration solutions and process improvement efforts across ITS. Builds and maintains collaborative relationships with diverse team members, peers, and leaders. Contributes to a culture of trust and transparency, sharing information broadly, openly, and deliberately. Actively embodies ITS values and behaviors, e.g., accountability, strong ethics, and best-in-class customer service.				

**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.