

UNIVERSITY OF SOUTHERN CALIFORNIA

Network Engineer WiFi (ITS)

Job Code: 167581

OT Eligible: No

Comp Approval: 7/9/2019

JOB SUMMARY:

Builds and maintains the university's wireless network. Provides network engineering and technical support for wireless network infrastructure, ensuring systems operate at peak efficiency with little to no downtime. Designs, configures, troubleshoots, and maintains university network equipment across multiple platforms. Ensures 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 ACCOUNTABILITIES:

***E/M/NA % TIME**

- | | | |
|-------|-------|--|
| _____ | _____ | Works collaboratively with key stakeholders within ITS and other university departments to deliver highly reliable network services. Creates and maintains detailed written documentation, and openly shares experiences and subject-matter expertise with co-workers through written and oral presentations. Provides 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 wireless network administration, operations, and disaster recovery. Creates custom scripts to improve network efficiency and enhance network automation. |
| _____ | _____ | Engages appropriate customers to resolve wireless 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 wireless 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 wireless network devices, performs wireless site surveys, and builds and manages SSIDs for multiple locations. Utilizes monitoring applications and tools to continually improve and troubleshoot the wireless network. Performs on-site verification of implementations to identify or anticipate problems and implement fixes. Functions as staff authority, providing wireless infrastructure and performance expertise. Assists in responding to wireless service issues and problems, collaborating with engineering teams to remediate outages and critical situations (e.g., enterprise IP networking and security, authentication, remote access). |
| _____ | _____ | Actively participates in the identification of root causes to network issues, recommending 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. Resolves 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.
- Performs other related duties as assigned or requested. The university reserves the right to add or change duties at any time.

***Select E (ESSENTIAL), M (MARGINAL) or NA (NON-APPLICABLE) to denote importance of each job function to position.**

EMERGENCY RESPONSE/RECOVERY:

- Essential: No
- Yes 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.

JOB QUALIFICATIONS:

Minimum Education:

- Bachelor's degree
- Combined experience/education as substitute for minimum education

Minimum Experience:

- 2 years

Minimum Field of Expertise:

Experience managing and documenting wireless networks, overlaying APs onto CAD (or similar) blueprints for heat mapping, and with 802.11a/b/g/n/ac, RF design and WLAN fundamentals. Ability to design, deploy, and troubleshoot large-scale wireless networks, with proven experience in troubleshooting, isolation, and remediation. Experience with wireless optimizations, including AP placement, achieving ideal signal levels, optimized roaming, spectrum selection, channel tuning, cell optimization, QoS, and more. Solid understanding of LAN/WAN and network protocols and wireless monitoring tools for quick issue resolutions. Experience designing controller clustering, failover methods and caveats, group management, AP modes of operation, patching, RF management, similar tasks. Demonstrated discipline recognizing and handling confidential and sensitive information, with proven ability to provide detailed information and summaries to management-level individuals and groups. Experience troubleshooting client experience tests and wireless packet analyses, managing support cases with external technology vendors, and performing active and passive wireless site surveys. Ability to understand and work with large, complex systems, and develop positive working relationships and strong rapport with team members.

Preferred Education:

Bachelor's degree

Preferred Experience:

4 years

Preferred Field of Expertise:

Bachelor's degree in computer science, computer information systems, information technology, or relevant field. CWNA, ACMA, ACMP, and/or CCNA Wireless certifications, or similar. Experience in IT, network engineering, and/or wireless networks. Experience with Aruba Wireless and ClearPass NAC, and knowledge of server and virtual technologies.

SIGNATURES:

Employee: _____ **Date:** _____

Supervisor: _____ **Date:** _____

The above statements are intended to describe the general nature and level of work being performed. They are not intended to be construed as an exhaustive list of all responsibilities, duties and skills required of personnel so classified.

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