Position Description

Requisition # 03020307
Position Number: 02007729
Dept: IET - COMMUNICATIONS RESOURCES - 061420
Position: SENIOR DEVELOPMENT ENGINEER
Approved Payroll Title Code: 0545
Approved Payroll Title: COMM AND NETWORK TCHL ANL 4
Approved MSP Salary Grade: MSP25
Approved PSS Salary Grade: MSP25

POSITION DETAILS

Under direction of the Network Operations Manager, serve as the Senior Systems Engineer providing leadership and technical oversight for the planning, designing and engineering of communication switching and transport systems to UC Davis clients and constituents through the integration of multiple telecommunications technologies. Shall (1) act as Project Manager for major campus infrastructure projects and participates in management decision making sessions to chart the direction of systems evolution. (2) Lead the voice engineering team in the development of new products and services through direct collaboration with the Network Service Center and the Network Operations Manager. (3) Insure the maintenance and operational readiness of the campus telephony and related systems in a manner consistent with the manufacturer's published standards and specifications. (4) Deliver tier 3 technical support to campus clients, Network Service Center staff and Network Operations Center technicians in the repair, installation, configuration, testing, and maintenance of all voice communications systems and subsystems.

Job Summary:

Campus Job Scope:
The Senior Voice Systems Engineer functions as the technical leader and expert for campus VoIP and legacy voice services. Frequent problem solving and technical analysis is required including proactive planning to avoid operational issues and service impacting problems. These services are critical to the mission of the university and the Senior Voice Systems Engineer is responsible for formulating strategies and administering systems, policies, process and resources.

Department Specific Job Scope:
to maximize the availability and functionality of voice services on campus.

Positions Supervised: N/A

40% VOICE SYSTEMS OPERATIONS, MAINTENANCE & REPAIR

Leads the voice engineering team in providing expert engineering support.
Responds to critical, major and minor alarm conditions and formulates an appropriate corrective action plan. Resolves highly complex technical problems with the voice network and voice systems to provide timely resolution of any issues that impact or threaten to impact the ability of the campus to conduct normal business operations.
Performs switch maintenance and preventative maintenance as recommended by manufacturer or as contained in site-specific instructions. Maintains daily logs to completely document all remedial and preventative maintenance activities for use in long-term trend analysis. Provides a weekly report on preventative maintenance activities.
Maintains and updates preventative maintenance processes and schedules. Reviews preventative maintenance schedule on a quarterly basis with Network Operations Manager.
Reviews and updates local switch operating procedures, as needed.
Documents all PSTN service outages and other activities and performs failure analysis. Initiates and updates campus notifications for service outages.
Documents and reports all repair work to ensure system and tele-management records are updated. Provides a weekly status report on all repair activities.
Provides technical support on a 7X24 on-call, rotational basis.

30% CAPACITY PLANNING & SYSTEMS ENGINEERING
Provide expert engineering leadership in the design, maintenance and implementation of communications infrastructure required to support campus voice services.
Monitors system growth and capacity and reviews operational measurement data associated with voice systems to identify when system resources are projected to reach capacity and recommend design changes to prevent any future degradation of system performance.
Review and implement various manufacturer's engineering change notifications to insure all communication systems are operating in an optimal manner.
Monitors and analyzes system reports and logs monthly to determine corrective course of action based upon the results of diagnostic tests or analysis.

Designs and deploys Cisco Voice over IP (VoIP) services to the campus to increase the operating efficiency, to allow for redundancy during service outages, and to extend the intelligence of the switching system beyond today's boundaries.

Provides direct input into the development of the annual voice systems budget required to support operations, maintenance and campus development efforts for voice services.

**20% TECHNOLOGY & STRATEGIC PLANNING**

In conjunction with the Network Operations Manager, lead the voice engineering team in performing quarterly technology assessments to identify how resources can be enhanced to provide lower cost or enhanced solutions through advancements in technology.

Partner with other universities and vendors in the development of applications and standards intended to integrate Cisco Voice over IP to both the Private Branch Exchange (PBX) and carrier networks and design and implement solutions which can integrate them into the campus communications infrastructure.

Assist the Network Operations Manager in the development of business case analyses to plan for enhancements and replacements of technology components.

Provide subject matter expertise in the development of disaster preparedness and recovery plans for all voice system components and services. Updates preparedness and recovery plans annually.

Maintains currency in FCC and PUC regulations governing connections to the public telecommunications network.

**10% ANCILLARY RESPONSIBILITIES**

Acts as the lead technical resource in the specification and/or execution of technical tasks and milestones on assigned projects.

Performs other duties as assigned.

**Physical Demands:**

Position requires lifting up to 25 lbs.

Position requires using a ladder or other assisted lifting device to work at heights of up to 10 feet.

**Work Environment:**

- Work flexible or extended hours and/or flexible shifts outside of 8 AM to 5 PM to meet project deadlines or to respond to emergency situations, participation in formal on-call status for after-hours
repair/response.

- Restricted vacation during periods of peak workload.

- Position may, at times, require employee to work with or be in areas where hazardous materials and/or infectious diseases are present. This position is subject to Medical Surveillance procedures and review in accordance with Federal and State Laws and Regulations and University Policy.

- Valid CA driver's license required. Position will participate in the Department of Motor Vehicles (DMV) Pull Notice System.

- UC Davis is a smoke and tobacco free campus effective January 1, 2014. Smoking, the use of smokeless tobacco products, and the use of unregulated nicotine products (e-cigarettes) will be strictly prohibited on any UC Davis owned or leased property, indoors and outdoors, including parking lots and residential space.

Background Check: Yes

QUALIFICATIONS

Minimum Qualifications:

- Comprehensive experience and expert technical knowledge in the operation and maintenance of Cisco Call Manager, Cisco Unity and Cisco Call Center Express voice systems. Working knowledge of Nortel SL-100 line features and functionality.

- Expert technical knowledge of communications infrastructure design requirements.

- Knowledge of industry standards for designing, engineering, installing, maintaining and testing telecommunications switching and network transmission equipment.

- Understanding of FCC directives and general industry tariffs and regulations mandated by the CPUC.

- Extensive experience in the design and modification of telecommunications systems with the ability to interpret, apply and translate manufacturer's technical specifications, documentation and requirements into requests for quotes, proposals, or work orders.

- Thorough knowledge of industry codes and standards such as ANSI, EIA, TIA, NEC, ITU-T for use in the design and engineering of system infrastructure.
Preferred Qualifications for Selection:

-In-depth knowledge of network architecture and technologies including SONET, DLC, PRI and SIP.

-Experience in analog, digital and microwave transmission theories and techniques.

-Demonstrated ability to provide higher level technical assistance to technical workforce in the resolution of any abnormal operating conditions.

-Working knowledge of signaling protocols and routing schemes required to interface the public switched telephone network.

-Skill to read, interpret and chart switch performance reports and fault records.

-Working knowledge of signaling protocols and routing schemes required to interface the public switched telephone network.

-Demonstrated knowledge of power, security, and climate control system requirements for telecommunications equipment.

-Working knowledge of industry inside and outside wiring techniques, color coding and cable types.

-Written and oral communication skills to develop detailed reports, complex project plans, proposals, information pieces, standards updates, operations and maintenance procedures, and to interact tactfully with diverse campus population, consultants, vendors.

-Strong client service orientation.

Ability to convey a helpful and positive attitude to the public, campus departments and the various units within Communications Resources in support of the department's client service environment.

-Up-to-date knowledge and familiarity with specific and detailed safety procedures.

-Demonstrated analytical skills, ability to work independently, establish priorities and to exercise good judgment.

-Skill to react quickly and rationally during emergency situations.
- Sufficiently well-developed language, tact and diplomacy skills appropriate for training and consulting with people of varied backgrounds.

- Clear and concise written style adaptable to training procedures, technical reports and documentation.

### Expectations

Read and follow the UCD Principles of Community.

The incumbent is expected to model the key values of the organization, including:
- Demonstration of integrity in the conduct of daily work.
- Accountability for the safe-keeping of resources in the employee's care and custody; reliability/teamwork; attention to maintaining and expanding expertise in the functions of the position.
- Modeling commitment to customer service in interactions with clients, co-workers and others.

- Skill to work with a diverse group of people in such a manner as to build high morale and group commitments to goals and objectives.

- Willingness and ability to learn and apply new technologies. In both communication and conduct, interacting with clients, co-workers, and others in the workplace in a respectful, tactful, and effective manner.

Adhere to workplace safety practices, read information communicated about workplace safety, complete required safety training on time, report any workplace safety issues promptly to their supervisor or the designated safety coordinator.

Work with a diverse group of people in such a manner as to build high morale and group commitments to goals and objectives.

React quickly and rationally during emergency situations.

Convey a helpful and positive attitude to the public, campus departments and the various units within Communications Resources in support of the department's client service environment.

Work independently, establish priorities and to exercise good
Provide higher level technical assistance to technical workforce in the resolution of abnormal operating conditions.

Support departmental goal of providing positive, innovative and effective customer service through performance of job functions.

Provide informal training and mentoring to educate personnel in the use of products or services.

Work cooperatively with others to achieve and maintain a strong client service environment.

Maintain up-to-date knowledge of voice and data technologies through literature, classes, exhibits, seminars, on-the-job training and other relevant training forums.

Be familiar with, and comply with, specific and detailed safety procedures and practices.

Demonstrate commitment and support of the UC Davis Principles of Community.

Accountable for the safekeeping of resources in the employee's care and custody and for following and implementing the cyber-safety guidelines.

Establish priorities, organize tasks, and direct effective implementation of tasks in a demanding work environment.

Willingness to learn and apply new technology and willingness to develop skills to promote professional growth.

Willingness to routinely stay in communication with technical staff at other organizations to stay abreast of computing developments and resources available over the network.

Use tact and diplomacy in interactions with clients and vendors.

Attend conferences, classes, and exhibits, involvement in professional groups and associations, subscriptions to and readership of professional literature, and other sources of learning will all be referenced in evaluating the incumbent's initiative in this area. Independently follow projects through to successful completion with a high degree of quality.