

Position Description

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Position Number: 02009663
Dept: IET - COMMUNICATIONS RESOURCES - 061420
Position: PRINCIPAL ELECTRONICS TECHNICIAN
Approved Payroll Title Code: 8301
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POSITION DETAILS

Job Summary: Under the direction of the Network Supervisor, perform repairs, conduct remedial and preventative maintenance, and implement technical field changes to the campus telecommunications infrastructure and equipment in support of voice, data, video, and radio communications services. Specific duties include the design, implementation, troubleshooting, and repair of network cabling, electronics, and UPS systems; providing prompt and courteous customer service, fully documenting field changes and trouble reports; and coordinating with other CR units and personnel to support the operational goals and mission of the Communications Resources Department.

Campus Job Scope:

Department Specific Job Scope: This is one of eleven positions that provide installation and repair services to the campus.

Positions Supervised: None

Essential Responsibilities: 40% Telecommunications Repair, Remedial Maintenance, and Install
Repair, installation, program and maintenance of complex telecommunications infrastructure including data, voice, video, UPS power and radio systems. Monitor campus network problems/outages and respond with triage and problem resolution. Perform emergency repair and restore service to the campus data, voice, video, wireless networking, UPS power

and radio systems as required. Coordinate repair activities. Install, program and document switches, routers and wireless access points. Perform material, equipment and performance tests. Test lines and cables to insure readiness. Troubleshoot and repair wiring faults. Perform cross-connections to facilitate repairs for data and voice systems. Document problem resolution activities in trouble tracking systems. Install or replace inside wiring and associated terminations. Install or replace voice, data, video, UPS power and radio systems electronic equipment and troubleshoot to component level. Modify and/or remove existing wiring plant to meet changing needs. Install, repair, program, document and test: single-line telephones, multi-line telephones, 4-wire circuit data units, DSL circuits, ISDN circuits, wireless access points, fiber optic patch panels and other associated LAN equipment including network and line cards. Operation of terminal equipment and system feature interactions. Establish or modify communication circuits. Assign physical equipment and facilities such as line equipment (LEN) and cable plant for voice and data services. Perform cross-connects on the Main Distribution Frame (MDF), Building Distribution Frame (BDF) and Intermediate Distribution Frame (IDF); repair or replace defective wiring and connections; rearrange wire or terminate permanent connections to conduct repairs or implement service order requests. Provide field input to assist with facilities records. Install, repair, calibrate CATV plant as per specs.

25% Supports Network Operations Special Projects

Provide leadership in limited scope projects and subject matter expertise in major projects for the design, implementation and operational support of complex communications infrastructure and systems. Serve as the technical lead in assigned projects. Establish project timelines and track project milestones. Analyze data to develop or advise in the design and development of network systems and services. Design technical solutions, operational support processes and maintenance procedures for assigned projects. Coordinate testing, data collection and field changes to telecommunications systems and infrastructure. Document projects. Escalate project issues as appropriate.

20% Executes Planned Maintenance Schedule

Responsible for preventative maintenance for data, voice, video, UPS power and radio systems. Coordinate campus outage notifications. Document completed preventive maintenance actions and notify appropriate personnel of

hardware or connectivity changes made to the network. Perform site inspections for cleanliness, environmental parameters, safety and operational hazards. Perform routine inspection and testing of emergency phones. Perform corrective action or escalate to appropriate resource. Conduct routine maintenance and inspection of telecommunications rooms.

15% Miscellaneous Technical Support Functions

Responsible hand tools and specialized equipment. Escalates problems and assist with workflow scheduling. Conduct equipment and cabling surveys/audits as required. Completes recharge documentation. Use personal computer to document timesheets, service orders, repairs, etc. Prepare redline cable distribution drawings and floor plans due to installation or repair activities.

Physical Demands:

Position requires lifting up to 50 lbs. of computer equipment. This position may be required to work in noisy environments generated from computer equipment, telephone conversations and nearby construction areas. Ability to climb, crawl, stoop and bend in confined areas; must climb ladders and stairs.

Work Environment:

This position is a critical position and subject to a background check. Employment is contingent upon successful completion of background investigation including criminal history and identity check. Position will participate in the Department of Motor Vehicles (DMV) Pull Notice System. 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. Work occasional evenings/nights. Work overtime and occasionally on weekends as needed, usually on short notice to meet operational needs. Ability to work on a video display terminal for extended periods. Adherence to published safety policies and practices.

QUALIFICATIONS

Minimum Qualifications:

- Experience with copper, coax and fiber optic cable, Local/Wide Area Network systems, and knowledge of their relative properties.
- Experience installing and troubleshooting network systems such as routers, switches, wireless access points, DLSAM's, and CSU/DSU's from major vendors such as Cisco and

Foundry.

- Knowledge of telecommunications terminology and applications.
- Knowledge of SL100 line telephone system line equipment and OCTEL 350 voice mail system.
- Skills in placing, splicing and testing cable systems, including copper, coax and fiber optics.
- Skills in placing, pulling and terminating inside wire and fiber, in making terminal block connections, Building Distribution Frame and Intermediary Distribution Frame layout and design, and cable arrangements.

- Customer service orientation.
- Ability to activate line equipment and perform software changes and diagnostics in the SL-100 using the MAP workstation.
- Analytical skills, ability to work independently, establish priorities and exercise good judgment.
- Knowledge of communication requirements of voice and data terminal equipment.
- Knowledge of analog, digital, and fiber optic transmission.
- Ability to perform emergency triage on voice network and escalate to vendors for assistance.
- Ability to perform diagnostics on Data Network Routers, Switches and hubs and diagnose hardware/software and configuration problems to the card level.
- Knowledge of PING, TELNET, FTP and router/switch command line interface.
- Knowledge of HP Openview and Remedy.
- Knowledge of device management tools.
- Knowledge of SL-100 software and hardware related features and their interactions.
- Knowledge of OCTEL 350 voice mail system.
- Knowledge of Motorola System Watch for 800 MHz radio system monitoring.
- Skills in performing electronic troubleshooting.
- Knowledge of communication services and network circuit design and complex network systems design.
- Knowledge of power protection systems (UPS) and electrical safety.
- Oral ,and written communication skills.and interpersonal skills, including tact, diplomacy and flexibility, to work effectively with management, faculty, vendors, staff and students.
- Record keeping skills to document project status, service performed, complete recharge documents and maintain current

Preferred Qualifications for Selection:

floor plans and cable records.

-Skill in reading, interpreting and explaining technical diagrams, specifications and cable records.

-Knowledge of recharge procedures sufficient to effect accurate billing documentation.

-Skill to train customers in the use of analog and digital electronic telephone instruments and auxiliary equipment.

-Ability to convey a helpful and positive attitude to the public, campus departments, and the various units within Information Technology in support of the Division's customer service environment.

-Ability to translate customer needs and problems into effective solutions.

-Organizational ability to prioritize workload and meet strict deadlines for individual work as a team lead for limited scope projects.

Expectations

Perform service order, project and internal work order updates within 8 hours with current information obtained from the field and/or installation activities.

Ensure work is completed within established time intervals and meets campus quality standards.

Ensure repair orders are completed within service level commitment timeframes.

Attend electrical safety training.

Ensure service orders are completed by assigned due date.

Ensure actual labor hours meet expected guidelines on repairs, service orders and projects.

Perform preventative maintenance in accordance with assigned schedule.

Participate in on-call rotation to provide repair support after normal business hours.

Responsible for attending required safety training, observing safety standards, and general safety awareness.

Keep informed on departmental policies and procedures via

Job Expectations

department meetings, employee handbook and department website.

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

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

Present and/or attend department-sponsored training for computer use, industry development and specifications, new equipment and practices.

SIGNATURES

Employee

I have read this position description and understand its contents.

Date

Supervisor

This position description accurately describes the essential responsibilities assigned to this position..

Date

Department Head

This position description accurately describes the essential responsibilities assigned to this position.

Date