



# Los Alamos County

## Job Description and Classification

---

<b>JOB TITLE:</b>	<b>Telecommunications Network Specialist</b>	<b>LOS ALAMOS</b>
<b>JOB CODE:</b>	<b>225</b>	
<b>CLASSIFICATION:</b>	<b>Non-Exempt</b>	
<b>DEPARTMENT/DIVISION:</b>	<b>Administrative Services/Information Management</b>	
<b>SUPERVISOR:</b>	<b>Chief Information Officer or designee</b>	

### **Position Summary:**

Under general supervision of the Chief Information Officer or designee, develops the requirement definitions, specifications and designs of the layer one technical components of network systems inclusive of fiber and copper-based cabling. Deploys solutions that meet business requirements for planned physical IT infrastructure. Maintains confidentiality of all privileged information.

*The general level and nature of this position are described in the headings below. This is not an all-inclusive list of all responsibilities, duties, and skills required of personnel in this classification. Duties, responsibilities and activities may change at any time with or without notice.*

### **Essential Duties and Responsibilities:**

- Ensures service and support is provided to customers in a professional, courteous, and timely manner.
- Analyzes, plans, and performs layout installation activity, as well as perform such installations for planned physical IT infrastructure.
- Designs cable requirements for new voice/data circuit installations and associated telecommunication equipment (such as conduits, raceways, and cable troughs).
- Designs, install, terminate and test cable for infrastructure systems, electrical systems and communications network in all communication rooms and locations.
- Maintains backbone infrastructure for county property.
- Conducts site surveys and analyses, identifies and interprets the wiring requirements of projects, and recommends appropriate service and/or equipment solutions.
- Prepares bid specifications, obtains cost estimates, and develops estimates.
- Coordinates and monitors contractors/vendors and support personnel services in progress to job completion; supports data network personnel; assists with planning and coordination of resolutions.
- Cuts, bends and mounts conduit; mounting cable pull boxes, mounting wall boxes, jack panels and patch panels; pulls and terminates data/telephony cable and optic fiber as part of relocation of existing circuits or installing new circuits.
- Tests circuits, isolates faults, corrects problems, makes repairs, and improves circuit and network performance.
- Aids in the configuration and management of switches. May install routers and switches to support the network.
- Updates configuration drawings and diagrams to match finalized installations.
- Provides support for desktop calls requiring layer one advanced support, provides problem assessment and resolution; keeps customers informed as to the status of on-gong problems.
- Provides project management for IT initiated physical plant telecommunications infrastructure projects including inspections.

- Provides inspections for IT components of other county property projects as requested.
- Serves as technical project team member for network deployment issues.
- Provides lead supervision, training and technical assistance to other employees.
- Maintains layer one infrastructure at existing sites.
- Responsible for coordinating and managing technology projects of varying complexity, on time and within budget.
- Researches technology and new advances in fiber and copper infrastructure and wireless technology.
- Ensures strict confidentiality of all information and records.
- Contributes to a team effort and accomplishes related results as required.
- Performs other duties as required.

**Minimum Qualifications:**

- Associates Degree from an accredited college or university in Computer Science, Information Technology, Management Information Systems, or related field, or equivalent combination of education and related work experience.
- Three years' experience in network cable infrastructure installation, two of which must include experience in design and implementation of enterprise layer one networking projects.
- ~~Must possess an EE-98 or JS-7 Journeyman electrical license.~~
- ~~Must possess a BICSI level II installer.~~
- Must possess or have ability to obtain within first sixty days of employment and must maintain a valid New Mexico Class D driver's license.
- Successful completion of thorough background investigation, including FBI fingerprint check. Must not have been convicted of a felony.
- Successful completion of the pre-employment physical exam prior to commencing work.

**Preferred Qualifications:**

- Bachelor's Degree from an accredited college or university in Computer Science, Information Technology, Management Information Systems, or related field.
- Experience in basic network troubleshooting using tools such as ping and trace route; fiber and CAT5E installation; basic circuit (T1, DS3, OC(x), Ethernet, Fast Ethernet) troubleshooting and testing; switching, ATM, IP routing protocols (i.e. IGRP, BGP, RIP, static, OSPF) and cable infrastructure testing and equipment and fiber testing methods including OTDR.
- Four years of professional experience in physical network analysis, design, implementation and maintenance.
- A New Mexico Journeyman electrical license (EE-98J or ES-7J or ER-1J)
- BICSI (Building Industry Consulting Service International) Installer 2 Certification or Technician Certification.
- Net+ certification.
- ~~BICSI Technician certification.~~
- Cisco CCNA Certification.
- Two years of experience in enterprise physical infrastructure project management.
- Basic routing trouble analysis and diagnosis skills on Cisco routers and switches.

**Knowledge, Skills, and Abilities:**

- Knowledge of contract documents and specifications.
- Knowledge of switch and radio systems platforms.



- Knowledge of equipment and rack installation, DC power, wire wrapping/color code understanding, blueprint and schematic reading, circuit labeling, and safety procedures.
- Knowledge of network test equipment to be able to monitor, diagnosis and repair network problems.
- Knowledge of the features, design, performance/quality standards, and service requirements of a large, technologically advanced network infrastructure.
- Knowledge and understanding of work processes, volume, and traffic characteristics associated with networks.
- Knowledge of construction methods.
- Knowledge of network and communications infrastructure design and maintenance.
- Knowledge of building, electrical and utility codes.
- Skill in computer/network systems planning.
- Skill in fiber optic physical plant design, installation and termination.
- Skill in troubleshooting and diagnosing a wide variety of network, hardware and telecommunication platforms.
- Ability to establish and maintain professional relationships with individuals of varying social and cultural backgrounds and with co-workers at all levels.
- Ability to manage complex projects ensuring proper levels of communication, documentation, and notification.
- Ability to communicate effectively, both orally and in writing.
- Ability to analyze and assess network architecture requirements and determine optimum, cost-effective solutions.
- Ability to install, configure, and maintain IT infrastructure.
- Ability to act in an independent and conscientious manner using sound judgment.

**Physical Demands:**

While performing the duties of this job, the employee routinely sits, stands, walks, talks and hears. The employee regularly uses manual dexterity and visual acuity to complete tasks. The employee is occasionally required to crawl, reach above shoulder level, crouch, kneel, balance, push/pull, carry and climb stairs. The employee regularly lifts and/or moves up to 25 pounds and must occasionally move or lift up to 50 pounds with the assistance of appropriate equipment or another person.

**Work Environment:**

Work is performed in a professional office environment with a moderate noise level, occasionally working under stressful conditions and for extended periods of time. This position routinely uses standard office equipment such as computers, phones and photocopiers. Evening, holiday, and weekend work outside of normal business hours may be required as well as travel and attendance at meetings. Must be available for planned and emergency maintenance and to provide customer support 7x24x365 for enterprise environments.

Each and every county position requires the following professional skills and abilities as key and necessary elements of performance. Employees are required to:

- Demonstrate regular and reliable attendance;
- Work well with others and participate fully in a team-oriented environment;
- Interface with other employees and customers in a courteous and respectful manner;
- Project positive support of their department and all county organizations at all times; and,
- Maintain and enhance the county's commitment to customer service excellence.

**Approvals:**

Department Director: \_\_\_\_\_ Date: \_\_\_\_\_  
(signature)

Human Resources Manager: \_\_\_\_\_ Date: \_\_\_\_\_  
(signature)

Reviewed: \_\_\_\_\_ Revised: 3/20/2015, 12/1/2018