

System/Network Administrator Contract Position Description

The La Cañada Wireless Association (LCWA) is a non-profit volunteer-based wireless internet service provider (WISP) for nearly 500 households in the Santa Fe, New Mexico area.

LCWA is looking for a person, persons or organization to manage the core network and computer systems of the Association on a contract basis.

The LCWA's servers are located in a secure data center at the National Center for Genome Research (NCGR) in Santa Fe. The routers and switches that form the core of the network are located at NCGR and at two remote sites linked to NCGR by redundant point-to-point radio links.

The systems/network administrator (SNA) works as an independent contractor to implement the goals of the LCWA Board. The SNA is supported by a second contractor who deals primarily with the design, installation and maintenance of the radio network. In addition, LCWA has a technical team of about 10 volunteers who perform radio installations and can assist with basic system administration tasks, e.g., member account management, mailing list management and web site content.

The SNA's duties include:

- Collaborating with the LCWA technical team in designing, building and maintaining the LCWA computing and network infrastructure
- Managing the central LCWA routers and computing servers
- Acting as the security officer for the organization
- Applying operating system updates, patches, and configuration changes
- Analyzing system logs and identifying potential issues with computer systems
- Acting as the technical liaison with LCWA's data service providers
- Introducing and integrating new technologies into the existing data center
- Performing routine audits of systems and software
- Installing and configuring new hardware and software
- Adding, removing, and updating user account information
- Documenting the system configuration
- Working with the technical team to troubleshoot reported problems
- System performance tuning
- Maintaining backups of critical configurations
- Maintaining licensing for commercial packages used in the network (VMWare etc.)

More specifically, the duties require a working knowledge of the following:

- Radius authentication
- PPPoE configuration
- Domain Name Service server configuration and maintenance
- VLAN configuration
- Router configuration with working knowledge of BGP, OSPF, MikroTik RouterOS Version 6 and Cisco IOS Version 15
- Firewall configuration
- Virtual Private Network administration
- Maintenance of VMWare host servers and virtual machines (VMware ESXi and the vSphere Server)
- Web server configuration
- Mail server configuration
- MySQL Database configuration and administration including replication
- Fluency with Linux administration via a command-line interface
- Solid network layer 2 & 3 troubleshooting skills, including spanning trees and packet latency issues