#### **Definition**:

This position is under the general supervision of the Director of Information and Technology Services, provides complete administration of the Lancaster School District's entire Information/Technology infrastructure including: LAN, WAN, and WLAN engineering, user administration, computer technician security delegation, database administration end user technology service provision and network security provision. Provide pleasant and cooperative direction, advice and support for computer support technicians and school site technicians. Attend and provide information at school site surveys for current and potential network engineering contractors. Ensure proper, secure and appropriate operation of any computer and/or computer network related technology, which includes software and hardware in the District. Consult in times of emergency regarding network security breaches, viruses, and data loss. Responsibly design, install, repair, troubleshoot, upgrade, maintain and operate any and all district related computer network technology, which includes software and hardware, workstations and servers, routers and switches. Ensure redundancy for district technology, including data backups, and UPS implementation. Create operating system environment disk images for large workstation deployment.

#### **Distinguishing Characteristics**:

The Network System Specialist carries the responsibility and application of ensuring network functionality, availability, redundancy, and security. This position also provides lead direction to other Information Technology Services personnel.

#### **Essential Job Duties:**

The following tasks are essential for this position. Incumbents in this classification may not perform all of these tasks or may perform similar related tasks not listed here.

- 1. Install and maintain network equipment (switches, routers, access points, and antennas.)
- 2. Define standards for network naming conversions and ITS procedures.
- 3. Maintains school site WAN connections and internet LACOE connections.
- 4. Maintain all school site LAN, WAN, and WLAN connectivity.
- 5. Configure and maintain dynamic district wide network security
- 6. Diagram current and future network schematics for management and engineering use.
- 7. Add school site LANS, WANS, WLANS to existing network for full functionality.
- 8. Support existing and new File and Print Service.
- 9. Test, train and prepare new and temporary employees for IT operations.
- 10. Configure and support all required IP addressing schemes and DNS entries.
- 11. Maintains DHCP services for all school site LANs and WLANs.
- 12. Provide adequate network foundation and addressing for WEB and EMAIL application servers.
- 13. Install and maintain full inter-district mail and calendar collaboration service.
- 14. Install and maintain internet proxy services for secure child safe internet connectivity.
- 15. Install and maintain email security, virus, and content filters.
- 16. Control and monitor network traffic using network packet sniffers and protocol analyzers.
- 17. Set up and create standard operating system disk images for large deployment of new PCs.
- 18. Perform other related duties as assigned.

#### Minimum Knowledge, Skill and Ability:

#### **Knowledge of:**

- Information Technology Functions
- Network mapping
- Network printing applications
- Network security procedures
- Computer input and data retrieval
- Student administration systems

Cisco Routers IOS (CCNA	APC Back UPS systems
Cisco Switching OS's (CCNA)	OSI Model (CCNA)
Cisco IP Access lists (CCNA)	Ethernet media: 10/100Base-T Copper
Cisco PIX firewall OS	Ethernet media Multi Mode Fiber optic
IPX protocol functionality	WAN media frame relay over T-1 lines
Microsoft networking standards	Ethernet Cabling standards/Conventions (CCNA)
Network Operating Systems (CNE)	IP addressing (CCNA)
Email Operating System (CNE)	IP sub-netting (CCNA)
Novel NDS database maintenance (CNE)	IP DNS and DHCP services (CCNA)
Novell network printing architectures	IP Printing Protocol
Tape backup systems	IP PING and TRACEROUTE utilities
Server virus protection	Network Address Translation (NAT)
Microsoft VISIO	Wireless standards
Computer hardware and peripherals	Application Layer content filtering (N2H2 Proxy)
GHOST and DRIVEIMAGE procedures	Email content/virus filter applications (GWAVA)
Deleted File recovery (salvage, etc.)	Email MX record entries (DNS)

#### **Skill and Ability to:**

- Read and interpret procedures, standards and specifications.
- Work independently.
- Work flexible hours or shifts
- Recognize and report hazards and apply safe work methods.
- Plan, organize and complete assigned tasks.
- Troubleshoot and repair all district related network hardware and software.
- Engineer and install all necessary network technologies.
- Maintain professional confidentiality.
- Work harmoniously with school/district personnel, supervisors and departments.

#### **Training and Experience:**

Any combination equivalent to training and experience that could likely provide the required knowledge, skills and abilities would be: Associates degree in Information Technology, Computer Science, or Network Management, and (5) years experience in Information Technology configuration management. Also required are minimum certifications: Novell Certified Network Engineer (CNE) and Cisco Certified Network Administrator (CCNA.) High School Diploma or equivalent also is required.

### **Physical Requirement and Working Conditions**:

- Require vision (which may be corrected) to read small prints
- Ability to access tight locations for cabling, etc.
- Require mobility to stand, stoop, reach and bend. Require mobility of arms to reach and dexterity of hands to grasp and manipulate small objects
- May be required to work around loud noise
- May be required to work around electrical current
- Is subject to inside and outside environmental conditions
- Require the ability to stand for long periods
- Require the ability to walk long distances
- Perform work which involves the frequent lifting, pushing and/or pulling of objects which may weigh approximately 50 pounds and may occasionally weigh up to 100 pounds with appropriate lifting techniques
- May be required to work at a computer terminal for prolonged periods
- Must possess a valid California driver's license and be insurable
- May be required to take and pass a physical examination
- Will be required to have live scan fingerprinting completed and cleared prior to beginning work

Range: 39

## PHYSICAL REQUIREMENT INFORMATION

<b>Physical Demands:</b>	HPD = Hrs. Per Day		
	Rarely	Occasionally	Frequently
	(0 - 1.5  HPD)	(1.5-3 HPD)	(3-6  HPD)
Sitting		X	
Standing	X		
Walking	X		
Bending (neck)		X	
Bending (waist)	X		
Kneeling	X		
Reaching	X		
Stooping	X		
Crawling	X		
Twisting (back &	X		
neck)			
Climbing	X		
Pushing/Pulling	X		

	Lifting		Carrying			
	Rarely (0 – 1.5 HPD)	Occasionally (1.5 – 3 HPD)	Frequently (3 – 6 HPD)	Rarely (0 – 1.5 HPD)	Occasionally (1.5 – 3 HPD)	Frequently (3 – 6 HPD)
0 –10 lbs.	X			X		
11- 25 lbs.	X			X		
26- 50 lbs.	X			X		
51–75 lbs.	X			X		_

	Rarely	Occasionally	Frequently
Mental Demands:	(0 - 1.5  HPD)	(1.5 - 3  HPD)	(3 - 6  HPD)
Problem Solve			X
Make Decisions		X	
Supervise	X		
Interpret Data		X	
Organize		X	
Write		X	
Plan		X	
Multi-Task	X		

	Rarely	Occasionally	Frequently
<b>Equipment Use:</b>	(0 - 1.5  HPD)	(1.5 - 3  HPD)	(3-6  HPD)
Telephone	X		
Copier	X		
Computer			X
Fax Machine	X		
Radio	X		

**Board Approved: January 17, 2012**