

Job Title: **Network Engineer, Senior**
 Job Family: **Non-Certified**
 Pay Program: **Administrative**
 Typical Work Year: **12 months**

Job Code: **090527**
 FLSA Status: **Exempt**
 Pay Range: **L09**

SUMMARY: Installs, maintains, and monitors the operation of the organization’s Wide Area, Local Area and Wireless networks (WAN/LAN/WLAN). Provides technical expertise related to the communications infrastructure, capacity planning, functional and technical design of enterprise systems, and resolution of complex problems, vendor products in communications hardware and software, and recommends purchases consistent with the organization’s short and long term objectives. Recommends and implements Network policies and standards and ensures adherence to security procedures. Performs troubleshooting, diagnosis, monitoring and repairs/fixes for the infrastructure and network communication systems.

ESSENTIAL DUTIES AND RESPONSIBILITIES: *To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

Job Tasks Descriptions	Frequency	% of Time
1. Troubleshoot, analyze, implement and maintain centralized District WAN and WLAN (Wifi) connectivity. The majority of District 12 mission critical systems communicate through the WAN and fiber infrastructure. This infrastructure provides communications for HR/Payroll/Financials, Internet and Intranet, Mail, Web, SAN, VMware (virtual systems), Accounting, Enterprise Backup, VPN/RADIUS /Remote Access, Cluster Servers, Microsoft and LanDesk Security Servers, Student Information Systems, Security cameras and video systems and Energy Management devices.	Daily	30%
2. Resolve complex WAN and communications technical issues escalated from LAN Analyst, vendors and schools.	Daily	20%
3. Create, troubleshoot, implement, upgrade and maintain district remote sites. This includes the programming of complex WAN/LAN/WLAN routers, switches, controllers and appliances. VLANs, QOS, OSPF, 802.1x, fiber and copper connections.	Weekly	10%
4. Monitor, implement, upgrade and maintain network protection and security systems. This include all IDS/IPS, bandwidth / packet shaping equipment. Anti-Virus / Malware systems, threat detection / mitigation systems and Content Filter appliances and software.	Daily	10%
5. Provide critical information to directors and managers regarding Enterprise systems projects. These projects comprise district wide security standards modifications, systems moves and changes (bandwidth upgrades, fiber/WLAN-WiFi/router upgrades and WAN improvement), redundant link planning (ex. creating backup ISP and WAN), installation planning of new district fiber backbone and VOIP / Telecomm convergence technologies.	Bi-Weekly	10%
6. Research and design, implement and troubleshoot/maintain district fiber network and internet. Setup backup WAN connections and redundant WAN links to prepare for ISP, weather and misc. WAN outages.	Weekly	8%
7. Develop, test, implement and train on District Wide Area Network standards. This includes router, VOIP, data and voice T1, Firewall, VPN, Wireless and Security Standards	Weekly	7%
8. Perform other duties as assigned.	Ongoing	5%
TOTAL		100%

EDUCATION AND RELATED WORK EXPERIENCE:

- Bachelor’s degree in computer science or equivalent major. Four (4) additional years of similar and relevant experience may be substituted for this requirement.
- Network Administrator Certification from Cisco or equivalent.
- Minimum of six (6) years experience in the installation and maintenance of LAN/WAN/WLAN network systems.

LICENSES, REGISTRATIONS or CERTIFICATIONS:

- Criminal background check required for hire.

TECHNICAL SKILLS, KNOWLEDGE & ABILITIES:

- Advanced oral and written communication skills.
- Advanced personal computer and keyboarding skills.
- Advanced customer service and public relations skills.
- Advanced critical thinking and problem solving skills..
- Advanced knowledge of Enterprise Network, WAN and WLAN management and troubleshooting
- Advanced knowledge of Fiber, Ethernet Infrastructures.
- Ability to maintain confidentiality in all aspects of the job. (Network Security Officer)
- Advanced ability to manage multiple tasks with frequent interruptions.
- Advanced ability to manage multiple priorities.
- Advanced ability to diffuse and manage volatile and stressful situations.
- Must carry pager, be on call and/or respond to calls 24/7.
- Ability to promote and follow Board of Education policies, District policies, building and department procedures.
- Ability to stay current with district policy, standards and training in the areas of data quality, data privacy, and cyber-security with respect to student and staff data, and related information systems
- Ability to communicate, interact and work effectively and cooperatively with all people, including those from diverse ethnic and educational backgrounds.
- Willingness to contribute to cultural diversity for educational enrichment.
- Ability to recognize the importance of safety in the workplace, follow safety rules, practice safe work habits, utilize appropriate safety equipment and report unsafe conditions to the appropriate administrator.

MATERIALS AND EQUIPMENT OPERATING KNOWLEDGE:

- Advanced knowledge of Routing Architecture and Network design, Foundry Core Router and Cisco IOS, DNS, IP Sub-Netting, TCP/IP, routing protocols (BGP, OSFP, RIP, MPLS, and EIGRP), Security: NAT Configuration, Proxy Server, Intrusion detection, IPS/IDS, VPN and Firewalls, QOS, SIP. VOIP and QOS and Data/Telecomm Integration
- Advanced knowledge of Hardware (Multi-vendor routers including Foundry RX8 core series routers, Foundry FESX Ethernet Copper and Fiber switches, Cisco 6509, 2600,4506, 400X and 7200, CSU/DSU, bridges, multiplexers, firewalls (ASA /PIX), VPN, Packet shaper, 2000/2003 R2 servers, single and multi-layer LAN switches, internet filtering appliances, T-1 circuit emulation, OC3, sonnet, DS3, DS1, and virtual circuits; Cisco and Siemens Hipath wireless systems, Xirrus Wifi, Meru Wifi. Network Analyzer (Omniview), Fluke Network Cable and Fiber Tester (DSP Series), Packet Sniffer, T-1 Analyzers, Network Scanners – 3Com network supervisor, Hewlett Packard (HP) Toptools, Syslog Server, Simple Network management Protocol (SNMP), Visio, Tcpcdump, Ethereal, Etherpeek, NAI Sniffer, and Snort , Webwasher and Secure Networking Filters
- Advanced knowledge of Adams 12 School District network and communications infrastructure.
- Advanced knowledge of and experience with Microsoft Suite.
- Operating knowledge of and experience with typical office equipment, such as telephones, copier, fax machine, E-mail, etc.
- Advanced operating knowledge of and experience with personal computers and peripherals.

REPORTING RELATIONSHIPS & DIRECTION/GUIDANCE:

	POSITION TITLE	JOB CODE
Reports to:	Academic Computing Services Executive Director	090532

	POSITION TITLE	# of EMPLOYEES	JOB CODE
Direct reports:	This job has no direct supervisory responsibilities.		

BUDGET AND/OR RESOURCE RESPONSIBILITY:

- None

PHYSICAL REQUIREMENTS & WORKING CONDITIONS: *The physical demands, work environment factors and mental functions described below are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

PHYSICAL ACTIVITIES:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Stand		X		
Walk		X		
Sit				X

PHYSICAL ACTIVITIES:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Use hands and fingers to handle and/or feel				X
Reach with hands and arms		X		
Climb or balance		X		
Stoop, kneel, crouch, or crawl		X		
Talk			X	
Hear			X	
Taste	X			
Smell	X			

WEIGHT and FORCE DEMANDS:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Up to 10 pounds			X	
Up to 25 pounds			X	
Up to 50 pounds	X			
51 to 100 pounds	X			
More than 100 pounds	X			

MENTAL FUNCTIONS:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Compare				X
Analyze				X
Communicate				X
Copy		X		
Coordinate		X		
Instruct		X		
Compute				X
Synthesize		X		
Evaluate			X	
Interpersonal Skills			X	
Compile				X
Negotiate	X			

WORK ENVIRONMENT:	Amount of Time			
	None	Under 1/3	1/3 to 2/3	Over 2/3
Wet or humid conditions (non-weather)	X			
Work near moving mechanical parts	X			
Work in high, precarious places	X			
Fumes or airborne particles	X			
Toxic or caustic chemicals	X			
Outdoor weather conditions	X			
Extreme cold (non-weather)	X			
Extreme heat (non-weather)	X			
Risk of electrical shock		X		
Work with explosives	X			
Risk of radiation	X			
Vibration	X			

VISION DEMANDS:	Required
No special vision requirements.	
Close vision (clear vision at 20 inches or less)	X
Distance vision (clear vision at 20 feet or more)	X
Color vision (ability to identify and distinguish colors)	X
Peripheral vision	X
Depth perception	X
Ability to adjust focus	X

NOISE LEVEL:	Exposure Level
Very quiet	
Quiet	
Moderate	X
Loud	
Very Loud	