

## SYSTEM ADMINISTRATOR

### **JOB SUMMARY**

Under general supervision of the Assistant Director of Innovation and Instructional Support, using considerable journey-level skills, performs a variety of specialized duties in the installation configuration, maintenance and operation of the District's Local (LAN) and Wide Area (WAN) networks, servers and related equipment including Student Information System, virtualization hardware and software, Linux, Apple, and Windows Server Infrastructure. Designs, analyzes, implements and maintains district WAN and LAN network infrastructure. Performs backups of District Information Systems. Maintains and monitors security policies and network security systems. Creates and maintains an integrated network directory services architecture. Provides on-going network monitoring and maintenance of deployed systems. Data Center management, monitoring, and support.

### **DISTINGUISHING CHARACTERISTICS**

The classification of System Administrator differs from that of Network Specialist and System Support in that the duties are more focused on server set up and maintenance, and on the data center and systems. A higher level of scripting and programming skill is required for the System Administrator position. The System Support Specialist position focuses on the operation and support of District systems such as the Learning Management System and Mobile Device Management, while the Network Specialist position focuses more on the operation and maintenance of the District's data networks and installing switches and wireless access points.

### **EXAMPLES OF DUTIES** – Duties include, but are not limited to, the following:

- Supports network infrastructure and maintains Linux, Macintosh and Windows based servers. Implements and maintains backup/archival systems supporting both Linux, Macintosh and Windows servers;
- Ensures all system and application monitoring sensors are online and operational at all times utilizing remote access systems, command line tools and web-based monitoring software;
- Assists other IIS staff in interpreting, diagnosing, and taking action on problems with networking, data center, and system applications;
- Maintains and supports existing security policies by monitoring network security, reviewing reports and log files to find suspicious network traffic and investigating its origin and risk level. Sends notifications of security threats to district staff;
- Sets up and maintains directory services across the District network;
- Creates and maintains virtualized server environment;
- Reviews network and system infrastructure and recommends replacements, upgrades or new hardware;
- Coordinates installations, setups and resources with application vendors, engineers and District staff;
- Maintains district network documentation and maps, including digital backups of all hardware configurations;
- Applies patches, installs software and hardware, manages file systems, and monitors performance of systems. Troubleshoots alerts from monitoring systems for system error conditions;
- Configures, monitors, and tests all backups to ensure data integrity in case of power failure, equipment malfunction, natural disaster, system error, or theft;
- Troubleshoots network connectivity and interaction between applications and the Internet to ensure data security;
- Assists in supporting website management team;

- Device imaging and deployment strategies;
- Performs other related duties as assigned.

### **EMPLOYMENT STANDARDS**

Any equivalent combination of training, education and experience that demonstrates the applicant is likely to possess the required knowledge, skill and ability to perform the job duties:

**Education:** Graduation from a college or university with a B.A. Degree is preferred.

**Experience:** Three (3) years of experience in Unix, Macintosh and/or Windows servers and managing directory services systems and networks.

**Knowledge of:** Linux, Cisco (IOS), Windows, Apple IOS and Macintosh Operating Systems; SQL database servers, Windows server systems and webserver platforms such as Apache, anti-virus solutions, datacenter technologies, SANs, fiber channel, RAID, load balancing terminal services, TCP/IP, UDP, ARP, DHCP, DNS, network switching fiber optic standards; Remote access technologies, such as RDP and Apple Remote Desktop; Directory Services RFC 2307 Directory Structures and implementation; Network authentication systems such as 802.1x; Network resource sharing technologies; Samba, Apple networking protocols; Shell programming languages, such as BASH and SH; Some higher-level programming language such as Python, PERL, SQL or Expect; Virtualization technologies such as VMware, Network performance monitoring tools.

**Ability to:** Automate tasks using a scripting language (Shell scripts, Perl, etc.); troubleshoot system and network problems; analyze performance issues; interface with technical support personnel and District staff; maintain harmonious working relations with school officials and other employees, students and the public; follow oral and written directions; interpret a variety of instructions furnished in written, oral, diagram, or schedule form; maintain insurability to drive a personal vehicle on the job; ability to read and write English at a level required for satisfactory work performance; move heavy materials and equipment; read, analyze and interpret general business periodicals, professional journals, technical procedures, or governmental regulations; write reports, business correspondence, and procedure manuals.

**License:** Possession of a valid Class C California Driver's License.

### **PHYSICAL STANDARDS**

*The work environment and physical demands of the positions as described below are representative of those that must be met by an employee to successfully perform the essential functions of a position in this computer management category. Reasonable accommodations may be made to enable individuals to perform the essential functions of a specific position. These physical standards are generic in nature and tasks may vary dependent on specific trade and or specialized work assignment.*

**Work Environment:** While performing the duties of this position employees are subject to constant interruption. The employee must be able to meet deadlines with severe time constraints. These positions may also be high volume positions and works without direct and/or constant supervision. Although the employee in these positions works mainly indoors, they may be required to work outdoors with exposure to seasonal weather conditions. The employee may be required to work at varying heights and in restrictive areas. Employees provided with individual work vehicles must be able to drive a vehicle to conduct work. Noise level in the work environment is usually moderate and occasionally will be loud.

**Physical Demands:** The physical demands of this position include sitting for extended periods of time, frequent standing and the use of hands and fingers to handle and to operate keyboards and specialized diagnostic repair tools and equipment. The employee frequently is required to reach with hands and arm and must squat, stoop or kneel, bend at the waist and reach above the shoulders, head and horizontally. The employee will frequently bend or twist at the neck and trunk more than the average person while performing the duties of this job. Lifting, pushing or pulling of objects generally not exceeding fifty pounds may also be required. Specific vision abilities required by this job include close vision, color vision, peripheral vision, depth perception, and the ability to adjust focus to complete assigned work orders, read a variety of materials and inspect District equipment. The employee must be able to hear and speak to receive and exchange information. Regular physical attendance at work is an essential requirement of this job classification.

**Hazards:** Electrical power supply and high voltage. Working in a cramped or restrictive work chamber. Working on ladders or at heights. Occasional exposure to cleaning fluids.

*The information contained in this physical standards description is for compliance with ADA and is not an exhaustive list of duties performed. The individuals currently holding this position perform additional duties and additional duties may be assigned.*

<b>System Administrator</b>	
<b>Personnel Action</b>	<b>Personnel Action Date</b>
Adopted by the Personnel Commission:	
Revised by the Personnel Commission:	05/28/20