

# ONTARIO-MONTCLAIR SCHOOL DISTRICT

## CLASS SPECIFICATION NETWORK ADMINISTRATOR

### GENERAL PURPOSE

Under the general direction of the Director of Information Services, performs highly responsible and complex professional and technical tasks in the planning, design, development, implementation, maintenance, and administration of the district's network infrastructure and network applications, server infrastructure, and virtualization; and performs related duties as assigned.

### DISTINGUISHING CHARACTERISTICS

A Network Administrator performs advanced professional and technical responsibilities in planning, design, implementation, maintenance and administration of multi-platform network operating systems, including participating in the development of technical standards for the configuration and installation of hardware and software systems. The Network Administrator has overall responsibility for the planning, design, implementation, maintenance, and troubleshooting of the District's network and server infrastructure. In addition, the Network Administrator is responsible for maintaining the security and integrity of the network infrastructure and ensuring that network systems are safeguarded from unauthorized access, ransomware and malware attacks.

### ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

1. Provides technical support for the District's network infrastructure, operating systems and applications; provides information, technical direction and training to other Information Services staff on activities required to implement projects, system hardware and software installations and upgrades, new procedures and techniques related to the network infrastructure and server infrastructure including Active Directory, Group Policies in a Windows server environment.
2. Performs network administration duties, including establishing and maintaining user accounts, file permissions and other authorization files; maintains system and remote access security to ensure system and data integrity; installs and tests security patches; installs and maintains anti-virus protection software.
3. Designs and implements VLAN topologies for securing District computing resources to include administrative computers, servers and other critical network infrastructure and systems. Performs security audits on network and server infrastructure based on industry standards for intrusion detection and intrusion prevention. Makes recommendations for best practices related to network security.

4. Assists in monitoring network speed, reliability and performance, using systems management software and other tools and utilities; troubleshoots and resolves complex issues including performance degradation, problems in interactions between hardware, software and network operating systems and hardware/disk failures; monitors and evaluates system and network statistics; assesses system capacity issues, evaluates software and other alternatives and recommends system upgrades or replacements; installs and tests operating system releases, upgrades and fixes.
5. Oversees and manages server support for databases; monitors memory and disk space for data storage and recommends the clean-up of disk storage; evaluates disk storage capacity and makes determinations on data.
6. Oversees and manages the districts virtual and SAN server infrastructure for memory and disk space for data storage and recommends the clean-up of disk storage; evaluates disk storage capacity and makes determinations on data storage locations; tunes to improve database performance; performs database startups, shutdowns and recoveries.
7. Design and implement security measures, to protect the network infrastructure from ransomware and other cybersecurity threats.
8. Plans, Implements, Upgrades, and monitor security systems to protect the School district Network and information from Cyber-attacks including setup of Two Factor Authentication (2FA) and Multi Factor Authentication (MFA), including setup of the various authentication factors used in these security measures.
9. Monitor Computer Networks for security vulnerabilities or other cybersecurity issues, Install security software
10. Develop and implement disaster recovery and business continuity plans to ensure the organization can quickly recover from a ransomware attack or other cybersecurity incident.
11. Develops and reviews documentation of policies, procedures, standards, program solutions and techniques for the design, operation, installation and maintenance of network operating system software; coordinates or participates in review of the technical environment to evaluate and measure system performance and effectiveness.
12. Conducts systems analysis and design studies on proposed network applications, including effects on user base, impacts on computer resources and personnel needs; develops and maintains procedures for the reasonable security of information systems and data integrity.

#### **OTHER DUTIES**

1. Participates in the evaluation of proposed solutions by attending demonstrations, performing technical research, providing technical input to evaluative committees and participating in the evaluation process.

2. Prepares various reports, as required, including project schedules and updates, charts and diagrams
3. Supervises and manages System Technicians that report directly to the Network Manager and performs staff evaluations.

## **MINIMUM QUALIFICATIONS**

### **Knowledge of:**

1. Network architectures and theory and principles of network design and integration, VLANs, including topologies and protocols.
2. Principles and practices of advanced network administration, including network monitoring and diagnostic methods, practices and procedures, and the TCP/IP protocol suite.
3. Methods and techniques in the installation and configuration of network operating system/ TCP/IP routing, layer 2 and layer 3 switching.
4. Network management systems, including principles and practices of security management.
5. Working knowledge of VMWARE, including principles and practices of server management.
6. Operating principles, parameters, uses, capabilities, characteristics and limitations of mid-range computers, servers, network operating systems, PCs and related equipment.
7. Working knowledge of VLANs/ TCP/IP routing and design to include Cisco IOS version 11.x and above.
8. Principles and practices of business and technical communications, including techniques in the development of system and user documentation.
9. Strong knowledge of cybersecurity best practices, including threat intelligence, incident response, and disaster recovery planning
10. Familiarity with security technologies and tools such as firewalls, antivirus software, intrusion detection and prevention systems, and endpoint protection.

### **Ability to:**

1. Analyze complex computer system and network issues, identify the reasons for network and network device problems, failures and malfunctions and develop effective solutions.
2. Develop and recommend cost-effective technical system improvements.
3. Monitor network trends and anomalies and make adjustments as required.
4. Read, interpret and apply complex technical publications, manuals and other documentation.
5. Identify information management and data communication issues and opportunities, analyze problems and alternatives and develop sound conclusions and recommendations.

6. Develop, implement and effectively manage procedures and processes, including maintenance of schedules and timetables and preparation of reports on project status.
7. Conscientiously preserve the confidentiality of all proprietary and confidential data and information residing in the district, in accordance with Departmental and District policy and State and Federal law.
8. Lead incident response, threat intelligence, event management, and Cyber security investigations.
9. Maintain and evolve the company's Information Security Policy, Disaster Recovery Plan, and other policy documents, as business and technology needs require over time.
10. Provide leadership, training, and guidance to cross-functional staff, serving as the team's information security subject matter expert.
11. Complete continuing projects while troubleshooting unexpected system problems.
12. Work cooperatively with customers in a responsive, helpful, courteous and tactful manner.
13. Communicate clearly and concisely, both orally and in writing.
14. Establish and maintain effective working relationships with other Information Services team members, managers, administrators, staff and others contacted in the course of work.

### **Training and Experience**

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a four-year college or university with a major in computer science, information systems or a closely related field; and at least three years of progressively responsible experience in the development, installation and maintenance of networks and network applications; or some combination of education, training and experience that produces the requisite knowledge and ability.

### **Licenses; Certificates; Special Requirements**

Microsoft Certified Systems Engineer (MCSE), Cisco Certified Network Administrator (CCNA), Certified Information Systems Security Professional (CISSP) or the equivalent are desirable. A valid Class C California driver's license, good driving record and the ability to maintain insurability under the District's vehicle insurance policy.

### **Physical Demands**

While performing the duties of this class, an employee is regularly required to sit; talk or hear, in person and by telephone; use hands repetitively to finger, handle, feel or operate computers and other standard office equipment; and reach with hands or arms. An employee is frequently required to walk and stand and occasionally to lift up to 50 pounds. Specific vision abilities required by this job include close vision and the ability to adjust focus.

## **Mental Demands**

While performing the duties of this class, an employee is regularly required to use oral and written communication skills; read and interpret complex data, information and documents; analyze and solve problems; observe and interpret situations; use math and mathematical reasoning; learn and apply new skills or information; perform highly detailed work on multiple, concurrent tasks; work under changing deadlines with frequent interruptions; work effectively as a team leader or member; and interact with managers, internal customers, employees, vendors, consultants and others encountered in the course of work.

## **WORK ENVIRONMENT**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. The employee works under typical office conditions, and the noise level is moderately quiet. The employee is on call 24x7 for the resolution of systems and network problems and issues.

**Board Approval (revised): June 1, 2023**