

# **Job Description - Network Administrator**

## **Title**

Network Administrator

## **Description**

The Network Administrator's role is to plan and coordinate the design, installation, and connectivity of computer and network systems to ensure the stable operation of the organization's IT assets. This includes developing, configuring, maintaining, supporting and optimizing all new and existing network hardware, software, and communication links. This person will also ensure the stability and integrity of in-house voice, data, video and wireless network services. This is achieved by planning, designing, and developing local area networks (LANs) and wide area networks (WANs) across the organization. In addition, the Network Administrator will participate with the installation, monitoring, maintenance, support, and optimization of all network hardware, software, and communication links. This person will also troubleshoot network performance issues, as well as analyze network traffic and provide capacity planning solutions. This individual shall analyze and resolve wireless local area networks (WLAN) hardware, software problems in a timely and accurate fashion, and provide end-user training where required. The Network Administrator is also responsible for the organization's telecommunications infrastructure which includes configuring, diagnosing, repairing, upgrading, and optimizing all telephone systems and services, voicemail, and VoIP/IP-PBX communication systems, and video conferencing environments, both internally and those integrated with Internet-based services.

## **Responsibilities**

### **Strategy & Planning**

- Collaborate with technical services team members to assess near and long term network capacity needs and design and implement strategic plans to make certain network capacity meets existing and future requirements.
- Create and maintain documentation as it relates to network configuration, network mapping, processes, and service records.
- Develop, implement, and maintain policies, procedures, and associated training plans for network administration, usage, and disaster recovery.
- Develop and deploy methodologies for testing network performance and providing network performance statistics and reports.
- Practice network asset management, including maintenance of network component inventory and related documentation.
- Conduct testing and development of disaster recovery plans to detect faults, minimize malfunctions and back up systems as it relates to network functionality.
- Design and support VoIP infrastructure and its associated software, including IP-PBXs, call management systems, voicemail, and interactive voice response.
- Select, deploy, and utilize appropriate tools for reporting and routing of IP telephony traffic on the network.
- Document the WLAN's architecture, design, and layout, including protocols and standards used, as well as configuration.

### **Acquisition & Deployment**

- Design and deploy company LANs, WANs, and WLANs, including servers, routers, hubs, switches, UPSs and other hardware.
- Conduct research on network products, services, protocols, and standards to remain abreast of developments in the networking industry in support of network procurement and development efforts.
- Oversee new and existing equipment, hardware, and software upgrades relating to network or telephony equipment.
- Plan and implement any improvement, modification, or replacement of network infrastructure components.
- Where necessary, liaise with equipment vendors during installations and hardware performance issues.
- Design and deploy enterprise-class wireless networks, including access points, servers, routers, hubs, switches, and other hardware.

### **Operational Management**

- Receive, prioritize, and respond to incoming work orders, calls, and/or emails regarding equipment and/or connectivity problems.
- Accurately document instances of software or hardware failure, repair, installation, and removal or other work requests.
- Manage and ensure optimal operation of all network hardware and equipment, including routers, switches, hubs, UPSs, and so on.
- Manage and ensure effectiveness of security solutions, including firewalls, anti-virus solutions, Virtual Private Networks, and intrusion detection systems.
- Establish and maintain regular written and in-person communications with departmental administration regarding pertinent network activities.
- Configure all networks to ensure their smooth and reliable operation for fulfilling organizational objectives and processes.
- Define and implement strategies for integrating disparate operating system environments.
- Monitor network performance and troubleshoot problem areas as needed to identify and remedy network performance bottlenecks.
- Ensure network connectivity of all servers, workstations, telephony equipment, fax machines, and other network appliances.
- Perform on-site analysis, diagnosis, and resolution of complex network problems for a variety of end users, and recommend and implement corrective solutions.
- Manage planning and maintenance of network cabling, including MDF and IDF closets.
- Participate in managing all network security solutions.
- Perform server and security audits, and system backups and recovery.
- Perform related duties consistent with the scope and intent of the position.
- Provide guidance to junior team members.

## **Position Requirements**

### **Formal Education & Certification**

Acceptable Options:

- High School diploma or equivalent, and 8 years work experience as senior network administrator.

- Bachelors Degree in Computer Science or Engineering, and 4 years work experience as a senior network administrator.
- Masters Degree in Computer Science or Engineering, and 2 years work experience as a senior network administrator.
- Industry standard certifications such as: CCNA, CCNP, CCIE, CWNA, CWSP may substitute for 2 years work experience each up to 4 years.

### **Knowledge & Experience**

- Proven experience and success with enterprise-level LAN, WAN, and WLAN engineering, design, and implementation.
- Proven ability to engineer routers, hubs, switches, and access points.
- Proven experience with network capacity planning, network security principles, and general network management best practices.
- Excellent technical knowledge of current network hardware, protocols, and Internet standards.
- Strong knowledge of network management and analysis tools.
- Working technical knowledge of PBX, voice mail, interactive voice services, call management systems, and telecommunication accounting systems.
- Knowledge and understanding of system flow charts, data processing concepts, and telecommunications principles.
- Knowledge of applicable data privacy practices and laws.
- Knowledge, understanding and ability to create and maintain thorough technical documentation

### **Personal Attributes**

- Project management skills a definite asset.
- Strong understanding of the organization's goals and objectives.
- Good written and oral communication skills; good interpersonal skills.
- Ability to conduct research into enterprise networking issues and products as required.
- Ability to present ideas in business-friendly and user-friendly language.
- Highly self motivated and directed, with keen attention to detail.
- Proven analytical and problem-solving abilities.
- Ability to effectively prioritize tasks in a high-pressure environment.
- Strong customer service orientation.
- Experience working in a team-oriented, collaborative environment.

### **Work Conditions**

- Occasional evening and weekend work to meet deadlines.
- On-call availability for emergency issues.
- Sitting for extended periods of time.
- Dexterity of hands and fingers to operate a computer keyboard, mouse, hand and power tools, and other computer components.
- Lifting and transporting of moderately heavy objects, such as computers and peripherals.
- Some in-district travel may be required for the purpose of on-site software and applications testing.

### **Affiliation**

- Wash Tech/CWA

## **Reporting Relationship**

This position reports to the Technical Support Supervisor