



HUMAN RESOURCES DEPARTMENT

POSITION DESCRIPTION

TITLE:	Network Engineer	LAST UPDATED:	January 18, 2016
DEPARTMENT:	Information Technology	JOB CLASS:	
REPORTS TO:	MIS/Computer Technology Manager	FLSA DESIGNATION:	Exempt

Summary: Under general supervision of the MIS/Computer Technology Manager, the Network Engineer is responsible for maintaining the day-to-day operations of the city of Frisco's local and wide area networks. This individual will be working as a member of the MIS team in managing and administering the organization's Cisco-based networking components. Areas of responsibility include desktop, mobile, server, and communications hardware and software; networking (wired and wireless); security; application software; report development; user support; and interfacing with third party suppliers.

The intent of this position description is to provide a representative summary of the major duties and responsibilities performed by incumbent(s) in this position. Incumbent(s) may not be required to perform all duties in this description and incumbent(s) may be required to perform position-related tasks other than those specifically listed in this description.

Essential Job Functions:

- Responsible for all components of Cisco network infrastructure including routers, switches, wireless access points, wireless LAN controllers, ASA firewalls, layer 2, layer 3 LAN/WAN support, HSRP, QoS, VLANs, bandwidth modeling and other third party software. This includes hardware administration & testing, network validation, remote administration, systems monitoring, and integration with other enterprise applications is also required
- Designs, architects, & updates network documentation using Visio and other tools
- Works with service providers and third party vendors to troubleshoot and resolve circuit and other network issues.
- Sets up, installs, upgrades, maintains, troubleshoots and modifies computer hardware and software for Local Area Network (LAN) and Wide Area Network (WAN) and mobile data communications networks and devices to include servers, switches, routers, hubs, firewalls, etc
- Reviews, recommends and implements security requirements for all systems on the network
- Conducts research and maintains a broad knowledge of current and emerging state-of-the-art computer/network systems technologies, architectures, services, protocols and standards in support of network procurement and development efforts
- Improves network management processes and procedures
- Works in a team environment by collaborating with others and shares tools, skills, and knowledge
- Participates in appropriate change planning meetings and prepares necessary documentation for appropriate change authorizations.
- Participates in the on-call rotation/after-hours support, ensuring uptime of critical servers, networks and applications and coordinates with third party providers and other members of city staff to insure rapid and satisfactory response to City emergency technical issues.
- Acts as key resource for department's efforts to document business requirements to ensure best technical design and solutions to operational business requirements.

- Assists in the maintenance and enhancement of system monitoring services to track performance, events, physical environment, security, and age of all systems to increase overall effectiveness.
- Monitors ticketing queues in help desk system to address issues in a timely manner, recording solutions, and escalating as required.

Other Important Duties:

- May be required to act as Team Lead.
- Performs other related duties as assigned.
- Regular and consistent attendance for the assigned work hours is essential.

Required Knowledge and Skills:

- Knowledge of technologies including MPLS, dynamic routing protocols, static routing, MQC framework, QOS, Spanning Tree, IPSec, SSL VPN and Cisco wireless
- Knowledge of customer service and training methods and practices.
- Knowledge of City policies and procedures.
- Knowledge and understanding of Cisco VoIP technologies and architecture is required
- Knowledge of telecommunications concepts. This includes 66 and 110 blocks, DEMARC extensions, Ethernet and T1 wiring
- Knowledge of mid to large Catalyst switches (ISR switch modules, 3560, 3750 with strong emphasis on 6500 series)
- Knowledge of hardware, software and peripheral equipment maintenance, repair, setup, modification and troubleshooting methods, practices and procedures.
- Knowledge of PC administration concepts and practices. Must be familiar with LAN/WAN administration concepts and practices. MS Windows OS, MS Office environment, Active Directory.
- Proficiency in access-control list (ACL).
- Proficiency in documentation and/or technical writing skills
- Proficiency in sub-netting skills
- Proficiency in the setup and installation of Microsoft Office applications.
- Proficiency in the setup and administration of current Windows Server OS, Exchange and SQL Server, OCS\Lync
- Ability to mitigate potential DoS and DDoS attacks
- Ability to troubleshoot circuit issues.
- Ability to troubleshoot experience internal and external routing protocols
- Ability to install/use tools like Wireshark, Fluke Networks, AirMagnet and Cisco software based network tools.
- Ability to perform IOS maintenance and upgrades on all Cisco platforms within our environment
- Ability to communicate technical issues and problems with end users in a manner which is understandable to those without technical training.
- Skill in problem-solving and logical analysis. Proficiency in the setup and installation of current Windows Desktop OS.
- Skill in responding, troubleshooting and resolving technical automated management information systems issues over the telephone, electronically or on site.
- Skill in implementing departmental procedures and objectives.
- Skill in effectively transporting, setting up, installing, de-installing, modifying, upgrading and operating multiple networking systems and software programs.
- Skill in resolving customer complaints and concerns.

Preferred Education, Experience, and Certifications:

- Associate’s Degree in Management Information Systems, Computer Science, or related field, **and** five years of LAN, WAN **or** equivalent combination of education and experience.
- Experience with 24/7/365 systems operations requirements.
- Experience with hardware, software and peripheral equipment maintenance, repair, setup, modification and troubleshooting methods, practices and procedures.
- Experience in setting up, configuring, troubleshooting VPN solutions including but not limited to Cisco and Microsoft.
- CCNA certification required (Current)
- MCSE or MCSA certifications preferred.
- May be required to obtain applicable certifications (e.g. Microsoft, Cisco).
- Must pass a pre-employment drug screening, background check and post-offer physical agility exam.

Environmental Factors and Conditions/Physical Requirements:

- Work is performed in office and on-site environments.
- May be subject to repetitive motion such as typing, data entry and vision to monitor.
- May be subject to standing or sitting for extended periods, bending, reaching, kneeling, crawling, lifting and carrying such as setting up, installing, modifying, repairing and troubleshooting automated management information systems, personal computer equipment and related peripherals, and setting up training rooms.
- May be subject to exposure to extreme weather conditions when loading, unloading, transporting or installing automated Management Information Systems and personal computer stations.
- May be subject to electrical currents and electrical shock.
- Must be able to lift up to 50 pounds.
- Must pass a pre-employment drug screening and/or post-offer physical exam.

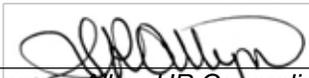
Equipment and Tools Utilized:

- Equipment utilized includes personal computer, copier, calculator, fax machine, other standard office equipment, hand tools, computer peripherals and department vehicles.

Approved By:

Signed by Curt Balogh, Director of Information Technology
Curt Balogh, Director of Information Technology

01/22/2014
Date



Shannon Allyn, HR Generalist

01/22/2014
Date