ICT INFRASTRUCTURE ENGINEER
General Purpose

The ICT Infrastructure Engineer is responsible for the designing, testing and implementation of routine installations of ICT hardware; including computers, network components and multifunctional devices

Key Tasks and Responsibilities

- Design and implement infrastructure solutions that adhere to current architecture standards in order to support the systems and services used by the organisation
- Determine the extent to which solutions perform "as required" within the current environment to ensure that future solutions meet anticipated demand
- Ensure that installations are completed to time, cost and quality, to minimise operational and project risk and ensure costs are contained
- Ensure that the testing and handover of implemented solutions are conducted as per organisational standards, therefore reducing the risk and adverse impact of change
- User administration (setup and maintaining account)
- Maintaining systems, Unix Windows, OS Patches, Server Replacement, Storage assignments, upgrades, virtual environments and disaster recovery management
- Verify that peripherals are working properly
- Quickly arrange repair for hardware in occasion of hardware failure
- Monitor system performance
- Create file systems
- Install software & Management
- Create and manage backup and recovery policies
- Monitor network communication
- Update system as soon as new version of OS and application software comes out
- Implement policies for the use of the computer system and network
- Setup security policies for users. (e.g. firewalls, mail filters, web filters and intrusion detection systems)
- Documentation in form of internal wiki
- Password and identity management
- Cloud infrastructure Implementation and management such as AWS, Azure, Open stack etc.
- Network services in cloud such as Content delivery networks (Akamai, CloudFront etc) and DNS servers.
- Source control - Cloud Access management & policies
- Designing best practices for backups, and whole infrastructure (Cloud & On Premise)
- Keep Certifications current and up to date, VMWare, HPE, Microsoft etc

Education and Training

Education: Bachelor's degree in computer science or related field required
Certifications: HPE, MCSE, MCSA, CCNA, CITRIX, VMWare are preferred but not required

Knowledge and Experience

Experience: 5+ years providing ICT services
- System and network security
- LAN/WAN configuration (including routers and firewalls, TCP/IP Network Protocols, etc.), and computer security best practices.
- Ability to work with minimal guidance and effectively manage a medium size computer network.
- Extensive current version knowledge of systems including:
- Microsoft Windows Server;
- Microsoft Azure;
- Amazon AWS;
- Office 365 administration;
- Microsoft Active Directory management, including security management using Group Policy Objects;
- Hyper-V;
- Microsoft Exchange Server;
- PowerShell;
- Cloud+ and/or Cloud security
- Information security administration, compliance; creating, testing and implementing business continuity and disaster recovery plans
- Network security, wireless security, application security, infrastructure hardening and security baselines, web server, and database security

Core Competencies

- Software knowledge – IT infrastructure engineers work with a variety of software. A working knowledge of how these various systems interact virtually helps the engineer conduct rapid troubleshooting
- Hardware knowledge – routers, servers, PCs, printers, and other equipment all fall under the IT infrastructure engineer's purview. The engineer also knows how to manage LANs and wired/wireless networks to connect these devices
- Problem-solving skills – getting many pieces of hardware and software to work in harmony is an ongoing and challenging task. Strong deductive reasoning and patience serve engineers well here
- Customer service – infrastructure engineers tend to work with internal rather than external partners. Communicating well with these "customers" helps the engineer resolve outages quickly and build strong working relationships
- Teaching ability – engineers may need to explain complex technical concepts to nontechnical colleagues and train them to use software and hardware
- Organization skills – whether keeping cable sprawl to a minimum, documenting their work, or prioritizing requests for support, IT infrastructure engineers need to stay organized to keep on top of their tasks

Working Conditions

The Engineer must be able to:
- Travel for work or training
- Work Long hours on projects or unscheduled outages
- Have a valid drivers license