SYSTEMS ADMINISTRATION: WINDOWS SERVER AND LINUX TRAINING COURSE

Introduction

This programme equips IT professionals with the skills required to install, configure, administer, secure and maintain Windows Server and Linux environments. It addresses server deployment, user and group management, directory services, file permissions, network services, storage management, patching, backups and performance monitoring. Participants explore Windows Server administration tools, Linux command-line operations, system services, access management and basic scripting. They learn how to maintain secure server environments, manage shared resources, troubleshoot service interruptions and establish effective backup and recovery procedures. The course combines platform-specific practical exercises with transferable administration principles applicable to enterprise infrastructure, data centers and organizational ICT environments.

Course Objectives

- Install and configure Windows Server and Linux systems.
- Manage user accounts, groups, permissions and authentication.
- Configure essential server and network services.
- Apply system updates, security hardening and access controls.
- Implement backup, recovery and system monitoring procedures.
- Troubleshoot common server and operating system problems.
- Use basic scripting and automation for routine administration

Course Modules

> Module 1: Server Administration Fundamentals

- Server roles, architecture and enterprise computing environments.
- Windows Server and Linux distributions and use cases.

- Server hardware, virtual machines and installation planning.
- Installation procedures, initial configuration and system validation.

> Module 2: Windows Server Installation and Configuration
- Windows Server deployment options and initial configuration.
- Server roles, features and administrative tools.
- Hostname, IP addressing, DNS and basic network configuration.
- Server Manager, PowerShell fundamentals and remote administration.

> Module 3: Linux Administration Fundamentals
- Linux distributions, file systems and system architecture.
- Command-line navigation, file operations and text processing.
- Package management, repositories and software installation.
- Process management, system services and system fundamentals.

> Module 4: Identity, Users and Access Management
- User accounts, groups and administrative privileges.
- Active Directory Domain Services fundamentals.
- Linux users, groups, ownership and file permissions.
- Authentication, password policies and least-privilege access.

> Module 5: Directory Services and Network Services
- Domain controllers, domains and organizational units.
- Group Policy concepts and centralized administration.
- DNS, DHCP and name-resolution management.
- File sharing, printing services and network resource administration.

> Module 6: Storage and File System Management
- Disk initialization, partitioning and volume management.
- Windows storage management and file system permissions.
- Linux file systems, mounts and disk utilization.
- Storage monitoring, quotas and capacity planning.

> Module 7: Server Security and Patch Management
- Server hardening and secure configuration baselines.
- Operating system updates, patches and vulnerability remediation.
- Firewalls, remote access security and administrative controls.
- Security logs, audit trails and incident response fundamentals.

> Module 8: Backup, Recovery and Business Continuity

- Backup types, schedules and retention policies.
- Windows and Linux backup tools and procedures.
- Recovery testing, system restoration and data integrity.
- Disaster recovery planning and service continuity.

> Module 9: Performance Monitoring and Automation

- CPU, memory, storage and network performance monitoring.
- Event logs, system logs and diagnostic techniques.
- PowerShell and Bash scripting fundamentals.
- Scheduled tasks, routine automation and configuration documentation.

> Module 10: Integrated Systems Administration Project

- Deploying a Windows Server and Linux laboratory environment.
- Configuring users, permissions, network services and shared resources.
- Applying security controls, updates and backup procedures.
- Troubleshooting simulated failures and presenting an administration report