MAGNA SKILLS DEVELOPMENT INSTITUTE

Capacity Building • Professional Training • Organisational Development

Generated: 21-Nov-2026

Course Profile Document

ICT and Security Management

Network Management and Administration

Prepared as a professional course profile for delegate review, sponsorship approval and organisational training planning.

COURSE CODE	DELIVERY	DURATION	PREPARED FOR
MSD2641	**Online / Face-to-Face**	**Flexible**	**Organisation Approval**

Register for this Course

View Online Course Page

Course Overview

The Network Management and Administration course by Magna Skills offers participants a comprehensive understanding of network management principles and practices essential for maintaining efficient and secure computer networks. This course covers key concepts, tools, and techniques used in network administration, configuration, monitoring, and troubleshooting, equipping participants with the knowledge and skills necessary to manage and optimize network infrastructure effectively.

Course Outcomes

1. **Understanding Network Fundamentals:** Gain a solid understanding of networking fundamentals, including protocols, architectures, and technologies, to effectively manage network infrastructure.
2. **Network Configuration and Administration:** Learn how to configure and administer network devices such as routers, switches, firewalls, and access points to ensure optimal network performance and security.
3. **Network Monitoring and Optimization:** Explore network monitoring tools and techniques for identifying network issues, analyzing performance metrics, and optimizing network performance.
4.

Security and Compliance: Understand network security principles and best practices for protecting against cyber threats, ensuring data confidentiality, integrity, and availability, and complying with regulatory requirements.

5. **Troubleshooting and Problem Resolution:** Develop skills in troubleshooting common network issues, diagnosing connectivity problems, and implementing effective solutions to minimize network downtime.

Course Outline / Curriculum

Module 1: Introduction to Networking

- Overview of networking concepts, protocols, and architectures
- OSI model and TCP/IP protocol suite

Module 2: Network Devices and Technologies

- Understanding network devices (routers, switches, firewalls, etc.)
- Technologies such as Ethernet, VLANs, and VPNs

Module 3: Network Configuration and Administration

- Configuring and managing network devices using CLI and GUI interfaces
- Implementing network services such as DHCP, DNS, and NAT

Module 4: Network Monitoring and Performance Optimization

- Network monitoring tools and techniques (SNMP, NetFlow, etc.)
- Analyzing network performance metrics and optimizing network resources

Module 5: Network Security Principles

- Common network security threats and vulnerabilities
- Implementing security measures such as firewalls, encryption, and access controls

Module 6: Cybersecurity Best Practices

- Security policies and procedures for network protection
- Incident response and disaster recovery planning

Module 7: Compliance and Regulatory Requirements

- Compliance standards (e.g., GDPR, HIPAA) and their implications for network management
- Ensuring regulatory compliance and data privacy in network operations

Module 8: Network Troubleshooting Techniques

- Diagnosing network connectivity issues using troubleshooting methodologies
- Resolving common network problems and performance bottlenecks

Module 9: Remote Network Management

- Managing and monitoring remote network devices and locations
- Implementing remote access solutions (VPN, SSH, etc.)

Module 10: Case Studies and Practical Applications

- Real-world network management scenarios and case studies
- Hands-on exercises and simulations for practical skill development

The Network Management and Administration course empowers participants with the knowledge and skills necessary to effectively manage and administer computer networks. Through a combination of theoretical learning, practical exercises, case studies, and interactive discussions, participants will develop the expertise required to configure, monitor, troubleshoot, and secure network infrastructure, ensuring optimal performance, reliability, and security in network operations.

Target Audience

- network administration
- network engineering
- systems administration

Key Course Benefits

Work-Ready Skills

Delegates leave with practical tools, templates and methods they can apply immediately at work.

Better Institutional Results

The programme supports stronger planning, reporting, compliance, accountability and service delivery.

Sponsor-Friendly

This document is designed to help supervisors, HR units and sponsors approve delegate participation quickly.

Professional Recognition

Delegates receive training documentation and a certificate of completion after successful participation.

Our Training Centres & Delivery Options

Magna Skills offers flexible delivery through face-to-face training centres across Africa and beyond, plus Online / E-Learning for delegates who prefer remote participation.

Southern Africa

Practical training destinations with strong travel access and delegate support.

- Pretoria, South Africa
- Vic Falls, Zimbabwe
- Livingstone, Zambia

East Africa

Popular regional centres for government, NGO and donor-funded project teams.

- Kigali, Rwanda
- Kampala, Uganda
- Nairobi,
- Zanzibar, Tanzania

West Africa & Islands

Strategic locations for regional networking and executive capacity building.

- Accra, Ghana
- Port Louis, Mauritius

International Executive Venue

Premium destination training for senior teams and international delegates.

- Dubai, United Arab Emirates

Online / E-Learning

Attend from anywhere through live online, blended or self-paced learning options.

- Online, E-Learning
- Remote Teams
- Flex

Organisation-Based Training

Magna Skills can also arrange dedicated in-house training for ministries, NGOs and companies.

- Onsite
- Custom Dates
- Group Training

Ready to Nominate Delegates?

Use the links below to register, review the live course page or contact Magna Skills for organisation-based training support.

Register / Apply Online | **View Full Course Page**

About Magna Skills

Magna Skills Development Institute provides practical capacity building programmes for government departments, NGOs, public institutions, donor-funded projects and private sector professionals across Africa. Our training approach combines expert facilitation, real workplace case studies, practical tools, post-training support and professional documentation that helps organisations strengthen staff performance and service delivery.

Government Training | NGO Capacity Building | Corporate Workshops | Online Learning | Face-to-Face Training | Certifica

Approval & Authorisation Form

This section may be completed by the organisation, department, HR office, finance office or sponsor approving delegate participation. It can be attached to an internal memo, procurement request or training approval submission.

Organisation / Department	
Delegate Name(s)	
Approved Course	Network Management and Administration
Preferred Delivery Mode	☐ Online ☐ Face-to-Face ☐ Organisation-Based Training
Preferred Training Venue / Date	
Estimated Number of Delegates	
Budget / Vote Number	
Contact Person	
Email / Mobile	

Authorised Name _____ Signature / Stamp _____ Date _____