



# MFE-IT

Reference: 2B/EN/L2

## Advanced Linux Administration Training Course

Secure, Maintain and Optimise a Linux System in a  
Professional Environment

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*Duration: 5 Days | Hours: 35 h*

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*Remote · Sessions guaranteed from 1 registrant · 60% hands-on practice*

## DESCRIPTION

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Once you have acquired the basics of Linux administration, it is essential to know how to manage critical services, secure the system, monitor performance and intelligently automate tasks. The gap between a junior admin and a confident production engineer is exactly what this training course covers.

This Advanced Linux Administration training course provides you with the skills you need to confidently work on Linux servers in a professional environment, on-site or in the cloud. It also builds a strong foundation for those pursuing expert-level Linux training or specialising in Linux security — combining service mastery, hardening, monitoring and automation.

## LEARNING OBJECTIVES

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By the end of this training course, participants will be able to:

- Manage and secure Linux network services (SSH, FTP, DNS, Apache/Nginx)
- Deploy and maintain robust automation scripts
- Implement a system security policy: firewall, auditing, hardening
- Diagnose system failures, monitor performance and manage logs
- Manage partitions, file systems and advanced maintenance operations
- Strengthen best practices for Linux management in the enterprise

## PREREQUISITES

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- Completion of the 'Linux Administration' training course or equivalent experience
- Proficiency in command line, basic services and Linux installation
- Practical experience in a Linux environment is recommended

*Because each participant is unique, a personalised interview is systematically organised in advance with our expert to design a training programme perfectly aligned with their objectives, level and professional challenges.*

## TARGET AUDIENCE

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Junior to intermediate system administrators, DevOps engineers and IT technicians who wish to gain autonomy in managing production Linux servers.

## DETAILED PROGRAMME

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The training alternates between theoretical input and hands-on practice (approximately 60% of the time). Modules are built around practical exercises based on real-world business use cases.

### Module 1 – Reminders and System Architecture

- Shell recall and system structure
- systemctl services and the /etc hierarchy
- Log analysis fundamentals

### Module 2 – Advanced Service and Network Management

- SSH, Apache/Nginx, FTP, DNS and NFS
- Static and dynamic network configuration
- netplan, NetworkManager and firewalld

### Module 3 – Security and Hardening

- Configuration of iptables, ufw and nftables
- sudoers management and access restrictions
- Security audit and best practices

### Module 4 – File System and Storage

- LVM and volume management
- Mount points, user quotas and partition integrity
- Simple backup and restore strategies

### Module 5 – System Monitoring and Diagnostics

- Commands top, htop, iostat, vmstat
- Log management with journalctl
- Analysis of /var/log entries

### Module 6 – Advanced Scripting and Automation

- Conditions, loops and functions in shell
- Administration scripts and cron / at
- Automated logging and alert workflows

## TEACHING METHODS

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### Format and Delivery

The training is delivered remotely via an interactive virtual classroom. It can also be delivered on-site, with content customised to match the needs of your professional project. The theory/practice split is approximately 40%/60%.

### MFE-IT Ultra-Personalised Format

Each session accommodates between 1 and 3 participants, ensuring highly individualised support. A preliminary interview allows us to tailor the content to each participant's profile. Inter-company sessions are guaranteed from just 1 registrant (except in cases of force majeure).

### Skills Assessment

Throughout the training, the trainer assesses participant progress through multiple-choice questions, role-playing exercises and hands-on work. At the end, a certificate of achievement is issued to each participant.

### Post-Training Support

For one month following the training, each participant can contact MFE-IT trainers with questions about implementing acquired knowledge. A response is provided by email or telephone within 48 working hours.

### Accessibility

MFE-IT is committed to welcoming people with disabilities. Contact: [contact@mfe-it.com](mailto:contact@mfe-it.com).

## PRACTICAL INFORMATION

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### Trainer Resources

- Structured demonstrations aligned with the detailed programme
- Exercise briefs and solutions throughout the training
- A ready-to-use technical environment for practical workshops
- Trainer validation of acquired knowledge at the end of each workshop
- Digital reference documents

### Certification and Validation

At the end of the training, a certificate is sent by email specifying the objectives, nature, duration and assessment results. A completion certificate can also be provided on request.

**Benefits for Participants**

- Train from your workplace or home, with no travel required
- Benefit from an expert trainer-consultant on the subject
- Enjoy an ultra-personalised format (1 to 3 participants)
- Continue training even in the event of unforeseen circumstances

**Benefits for the Organisation**

- Optimise the training budget by reducing travel and accommodation costs
- Offer quality training to all employees, regardless of location
- Reduce absence time linked to travel
- Support team upskilling in all contexts