

Networks, incidents and troubleshooting



RC-55 3 Days (21 Hours)

Description

During this training, you will learn how to diagnose and resolve failures that may occur within a network infrastructure. You will discover the different sources of possible problems and the areas of research to identify them. You will work on different approaches and solutions to learn to identify the causes of anomalies and resolve them effectively.

Who is this training for ?

For whom

Network technicians.

Prerequisites

- Basic knowledge of networks and TCP/IP.

Training objectives

- Acquire a methodology for solving problems within a network infrastructure
- Check an entire network: clients, servers, switches, routers
- Troubleshoot switches and routers
- Monitor routers and switches with SNMP

Training program

Rappels des concepts de base

- Reminders of basic concepts

Les réseaux Locaux

- Reminders of the operation of an Ethernet network.
- The switch in a network architecture.
- The principles of switching.
- The Spanning Tree protocol.
- VLAN networks.
- Common problems.
- Configuration and troubleshooting of switches.
- Practical work Switch configuration and VLAN implementation.
- Fault simulations and troubleshooting.

Les réseaux sans fil

- Modes and principles of operation.
- Implementation of Wi-Fi networks.
- The different standards linked to IEEE 802 networks.
- 11.
- Security: WEP, WPA, WPA-2.
- Practical work Implementation of a Wi-Fi access point, common problems and troubleshooting.

Le routeur

- The operating principles of IP networks.
- Addressing and the use of masks.
- The routing function and protocols.
- The ARP protocol on LAN.
- Static and dynamic configuration.
- Configuration of backup and restoration.
- The main problems encountered.
- Router troubleshooting techniques.
- Practical work Implementation and testing of an entire network (clients, servers, switches, routers).
- Failure simulation and troubleshooting.

Les services d'infrastructure réseau

- The DHCP service.
- Implementation.
- Deployment of a DHCP server and DHCP relays.
- The DNS.
- What is DNS for? Forward zone, reverse zone.
- Static or dynamic DNS.
- Common problems.
- Tests and troubleshooting.
- Practical work Deployment, testing and use of DNS and DHCP.
- Failure simulation and troubleshooting.

Le protocole SNMP

- SNMP principles: supervisor and agents.
- The different versions of SNMP.
- MIBs.
- SNMP alarms and notifications.
- Implementation on switch, router, and server.
- SNMP agent configuration version 1, 2c and 3.
- Paid applications.
- Open Source tools.
- How to use SNMP.
- Practical work Using SNMP with Windows and Linux.
- Using SNMP to routers and switches