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Sign up

Network Basics Support Training

3 days (21 hours)

Presentation

Network Basics Support is a course designed for support and operations teams wishing to acquire a solid grounding in computer networks.

It enables you to understand fundamental concepts (IP addressing, routing, protocols), handle network equipment (switches, routers, firewalls), and develop practical skills in supervision and troubleshooting.

Our training will help you master essential tools (ping, tracert, Wireshark, monitoring), secure environments (VLAN, ACL, VPN), and effectively support users in the event of a network incident.

On completion, you'll be able to deploy and troubleshoot simple networks, integrate cloud environments (Azure, AWS, GCP), and industrialize your support practices through documentation and automation.

As with all our training courses, this one features the latest stable versions of the tools studied and their new features.

Objectives

- Understand essential network architecture and protocols
- Basic IP, VLAN and VPN configuration
- Diagnose with Wireshark and resolve incidents
- Set up simple monitoring (Zabbix/Nagios)
- Apply good security practices (ACL, segmentation)
- Document and industrialize network support

Target audience

- Support/helpdesk technicians
- System administrators
- IT managers
- Developers/integrators

Prerequisites

- General IT knowledge
- Windows/Linux basics recommended

Our Network Basics Support training program

Introduction to networks and fundamental concepts

- Role of a computer network in the company
- LAN, WAN, WLAN, VPN overview
- Equipment: switches, routers, firewalls
- OSI and TCP/IP models explained simply
- IPv4/IPv6 addressing, masks and subnets
- workshop: creating a simulated mini-local network

Addressing, routing and connectivity

- Understanding IP, CIDR and subnets
- Notions of static vs. dynamic routing
- Essential services: ARP, DHCP, DNS
- Gateways and network interconnection
- Test tools: ping, traceroute, nslookup
- Workshop: configure IP manually and validate connectivity

Essential network protocols

- Transport: TCP, UDP, ICMP
- Applications: HTTP/HTTPS, FTP, SMTP/IMAP, DNS
- Reliability, ports and connection status
- Basic security: SSL/TLS and encryption
- Good support practices (checklists and triage)
- Workshop: frame analysis with Wireshark

Network equipment and infrastructure

- Role of switches and routers
- Corporate Wi-Fi: APs, channels, roaming
- Hardware & software firewalls (principles)
- Cabling, RJ45, fiber and topologies

- Virtualization & SDN (overview)
- workshop: setting up a switch + access point

Network security and best practices

- Threats: sniffing, spoofing, DDoS
- Access policies & passwords
- VLAN segmentation
- ACL and basic filtering
- Monitoring & logging: why and how
- workshop: creating a VLAN + simple firewall rules

Network supervision and troubleshooting

- Incident resolution methods (L1/L2)
- Tools: Nagios, Zabbix, PRTG
- Log reading and event correlation
- Identifying physical vs. software failures
- Escalation and communication
- Workshop: simulating and resolving a failure

Enterprise networks and advanced connectivity

- Enterprise network architecture (layers & zones)
- MPLS, VPN, SD-WAN: use cases
- High availability & redundancy
- Quality of service (QoS)
- Critical services: internal DNS, centralized DHCP
- workshop: configuring a site-to-site VPN (guided demo)

Cloud and network virtualization

- VPC/VNet: AWS, Azure, GCP
- Hybrid networks and connectivity
- Overlays: VXLAN, GRE (overview)
- Kubernetes containers & networking (basics)
- Cloud security & governance
- workshop: creating a simple virtual network (cloud)

Best practices and roadmap for support

- Standardize: templates & documentation
- Automation (scripts, Ansible)
- Incident management and escalation
- Communication with users & businesses
- Monitoring: 5G, IoT, Zero Trust

- workshop: writing a team network runbook

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced IT technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the forthcoming course, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical training: 60% hands-on, 40% theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Certification

A certificate will be awarded to each trainee who has completed the entire course.