

5th edition:

MikroTik

Certified Network
Associate (MTCNA)

hotelinking

Certification

MikroTik MTCNA

Duration

3 days (24 hours)

Price

€ 550 - Subsidized training for companies is available (more information on request: admin@hotelinking.com)

Next date

October 2024

Course schedule:

Monday: 9 am to 6 pm (includes 1 hour for lunch).

Tuesday: 9 am to 6 pm (includes 1 hour for lunch).

Wednesday: 9 am to 6 pm (includes 1 hour for lunch).

Location

HOTECMA - Former ASIMA Fire Station

Son Castelló Polygon

Gremi Picapedrers, 1

07009 - Palma

General information:

The course leads to the basic MikroTik certification (MTCNA).

At the end of this training, the student will be familiar with RouterOS software and RouterBOARD products.

The student will be able to configure, administer and troubleshoot basic problems of a MikroTik router and provide basic services to customers.

Who is it intended for:

Network engineers and technicians who wish to implement and provide support in:

- Corporate Networks.
- Operators (WISPs and ISPs).

Prerequisites:

Have a good understanding of TCP/IP and subnetting.

Suggested reading:

Test yourself with 'Example Test' at: <https://www.mikrotik.com/client/training>

Title

Objective

Module 1 Introduction

- About MikroTik
 - What is RouterOS
 - What is RouterBoard
- First time accessing the router
 - WinBox y MAC-WinBox
 - WebFig and Quick Set
 - [Default configuration](#)
- RouterOS command line interface (CLI)
 - Null Modem cable
 - SSH and Telnet
 - New terminal in WinBox/WebFig
- RouterOS CLI principles
 - <tab>, double <tab>, “?”, navigation
 - Command history and its benefits
- Initial configuration (Internet access)
 - WAN DHCP-client
 - LAN IP address and default gateway
 - Basic Firewall - NAT masquerade
- Upgrading RouterOS
 - Package types
 - Ways of upgrading
 - RouterBOOT firmware upgrade
- Router identity
- Manage RouterOS logins
- Manage RouterOS services
- Managing configuration backups
 - Saving and restoring the backup
 - Difference between a backup and an export (.rsc) file
 - Editing an export file
- [Resetting a RouterOS device](#)
- Reinstalling a RouterOS device (Netinstall)
- [RouterOS license levels](#)
- Sources of additional information
 - wiki.mikrotik.com
 - forum.mikrotik.com
 - mum.mikrotik.com
 - Distributor and consultant support
 - support@mikrotik.com
- **Module 1 laboratory**

Title	Objective
<p>Module 2 DHCP</p>	<ul style="list-style-type: none"> ■ DHCP server and client <ul style="list-style-type: none"> ■ DHCP client ■ DHCP server setup ■ Leases management ■ DHCP server network configuration ■ Address Resolution Protocol (ARP) <ul style="list-style-type: none"> ■ ARP modes ■ RouterOS ARP table ■ Module 2 laboratory

Title	Objective
<p>Module 3 Bridging</p>	<ul style="list-style-type: none"> ■ Bridging overview <ul style="list-style-type: none"> ■ Bridge concepts and settings ■ Creating bridges ■ Adding ports to bridges ■ Bridge wireless networks <ul style="list-style-type: none"> ■ Station bridge ■ Module 3 laboratory

Title	Objective
<p>Module 4 Routing</p>	<ul style="list-style-type: none"> ■ Routing overview <ul style="list-style-type: none"> ■ Routing concepts ■ Route flags ■ Static routing <ul style="list-style-type: none"> ■ Creating routes ■ Setting default route ■ Managing dynamic routes ■ Implementing static routing in a simple network ■ Module 4 laboratory

Title	Objective
<p>Module 5 Wireless</p>	<ul style="list-style-type: none"> ■ 802.11a/b/g/n/ac Concepts <ul style="list-style-type: none"> ■ Frequencies (bands, channels) data-rates / chains (tx power, rx sensitivity, country regulations) ■ Setup a simple wireless link <ul style="list-style-type: none"> ■ Access Point configuration ■ Station configuration ■ Wireless Security and Encryption <ul style="list-style-type: none"> ■ Access List ■ Connect List ■ Default Authenticate ■ Default Forward ■ WPA-PSK, WPA2-PSK ■ WPS accept, WPS client ■ Monitoring Tools <ul style="list-style-type: none"> ■ Snooper ■ Registration table ■ Module 5 laboratory

Title	Objective
<p>Module 6 Firewall</p>	<ul style="list-style-type: none"> ■ Firewall principles <ul style="list-style-type: none"> ■ Connection tracking and states ■ Structure, chains and actions ■ Firewall Filter in action <ul style="list-style-type: none"> ■ Filter actions ■ Protecting your router (input) ■ Protection your customers (forward) ■ Basic Address-List ■ Source NAT <ul style="list-style-type: none"> ■ Masquerade and src-nat action ■ Destination NAT <ul style="list-style-type: none"> ■ dst-nat and redirect action ■ FastTrack ■ Module 6 laboratory

Title	Objective
<p>Module 7 QoS</p>	<ul style="list-style-type: none"> ■ Simple Queue <ul style="list-style-type: none"> ■ Target ■ Destinations ■ Max-limit and limit-at ■ Bursting ■ One Simple queue for the whole network (PCQ) <ul style="list-style-type: none"> ■ pcq-rate configuration ■ pcq-limit configuration ■ Module 7 laboratory

Title	Objective
<p>Module 8 Tunnels</p>	<ul style="list-style-type: none"> ■ PPP settings <ul style="list-style-type: none"> ■ PPP profile ■ PPP secret ■ PPP status ■ IP pool <ul style="list-style-type: none"> ■ Creating pool ■ Managing ranges ■ Assigning to a service ■ Secure local network <ul style="list-style-type: none"> ■ PPPoE service-name ■ PPPoE client ■ PPPoE server ■ Point-to-point addresses ■ Secure remote networks communication <ul style="list-style-type: none"> ■ PPTP client and PPTP server (Quick Set) ■ SSTP client ■ Module 8 laboratory

Title	Objective
Module 9 Misc	<ul style="list-style-type: none">■ RouterOS tools<ul style="list-style-type: none">■ E-mail■ Netwatch■ Ping■ Traceroute■ Profiler (CPU load)■ Monitoring<ul style="list-style-type: none">■ Interface traffic monitor■ Torch■ Graphs■ SNMP■ The Dude■ Contacting support@mikrotik.com<ul style="list-style-type: none">■ supout.rif, autosupout.rif and viewer■ System logs, enabling debug logs■ Readable configuration (item comments and names)■ Network diagrams■ Module 9 laboratory

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CONTACTLESS TECH TO CONNECT WITH YOUR GUESTS

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