

Programme de la formation Mikrotik MTCNA (MikroTik Certified Network Associate)

Module 1

About MikroTik
What is RouterOS
What is RouterBoard
First time accessing the router
Winbox and MAC-Winbox
Webfig and Quickset
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
Manage RouterOS logins
Manage RouterOS services
Managing configuration backups
Saving and reload backup
Editing export file
RouterOS license
Levels
Updating a license
Netinstall
Reinstall RouterOS
Reset RouterOS
Sources of additional information
<http://wiki.mikrotik.com/wiki/Manual:TOC>
<http://www.tiktube.com/>
<http://forum.mikrotik.com/>
Distributor and consultant support
support@mikrotik.com

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Module 2

Routing overview
Routing concepts
Route flags
Static routing
Creating routes
Setting default route
Manage dynamic routes
Implementing static routing on simple network

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Module 3

Bridging overview
Bridge concepts
Creating bridges
Adding ports to bridges

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Module 4

802.11n Concepts
Wifi Frequencies
Legacy 802.11a/b/g stuff
Setup simple wireless link
Access Point configuration
Station configuration
MAC-address filtering
Default-authentication
Access-list
Connect-list
Default-forwarding
Wireless Security and Encryption
WPA-PSK
WPA2-PSK
MikroTik wireless protocols
NV2 (TDMA) configuration
Monitoring Tools
Wireless scan
Snooper
Registration table
Bridge wireless networks
Station-bridge

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Module 5

ARP
ARP modes
RouterOS ARP table
DHCP server and client
DHCP client
Server setup
Leases management
DHCP-server network configuration
RouterOS tools
E-mail
Netwatch
Ping, Traceroute
Profiler (CPU load)
Contacting support@mikrotik.com
supout.rif, autosupout.rif and viewer
/system logging and debug logs
readable configuration (item comments and names)
network diagrams

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Module 6

Firewall principles
Connection tracking and states
Structure, chains and actions
Firewall Filter in action
Filter actions
Protecting your router (input)
Protection your customers (forward)
Basic Address-List
Source NAT
Masquerade and src-nat action
Destination NAT
dst-nat and redirect action

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Module 7

Simple Queue
Target
Destinations
Max-limit and limit-at
Bursting
One Simple queue for whole network (PCQ)
pcq-rate configuration
pcq-limit configuration
Monitoring
Interface traffic monitor
Torch
Graphs
SNMP

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Module 8

PPP settings
ppp profile
ppp secret
ppp status
IP pool
Creating pool
Managing ranges
Assigning to service
Secure local network
PPPoE service-name
Create PPPoE server
Point-to-point addresses
Creating PPPoE clients on RouterOS
Secure remote networks communication
PPTP client and PPTP server
SSTP client and SSTP server without certificates
Setup routes between networks

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