

PROGRAMMA Mikrotik MTCNA

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Module I

Introduction

- About MikroTik
- What is RouterOS
- What is RouterBOARD
- First time accessing the router
- WinBox and 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

Module II

DHCP

- DHCP server and client
- DHCP client
- DHCP server setup
- Leases management
- DHCP server network configuration
- Address Resolution Protocol (ARP)
- ARP modes
- RouterOS ARP table
- Module 2 laboratory

Module III

Bridging

- Bridging overview
- Bridge concepts and settings
- Creating bridges
- Adding ports to bridges
- Bridge wireless networks

- Station bridge
- Module 3 laboratory

Module IV

Routing

- Routing overview
- Routing concepts
- Route flags
- Static routing
- Creating routes
- Setting default route
- Managing dynamic routes
- Implementing static routing in a simple network

Module 4 laboratory

Module V

Wireless

- 802.11a/b/g/n/ac Concepts
- Frequencies (bands, channels) data-rates / chains (tx power, rx sensitivity, country regulations)
- Setup a simple wireless link
- Access Point configuration
- Station configuration
- Wireless Security and Encryption
- Access List
- Connect List
- Default Authenticate
- Default Forward
- WPA-PSK, WPA2-PSK
- WPS accept, WPS client
- Monitoring Tools
- Snooper

- Registration table
- Module 5 laboratory