

MikroTik



ISP Setup and Administration using MikroTik

This training course will provide you with the skills to configure a MikroTik RouterOS Routerboard as a dedicated router, a bandwidth manager, a secure router, a bandwidth manager, a secure firewall appliance, a simple wireless firewall appliance, a simple wireless access point, a VPN Server or Client or an access point, a VPN Server or Client or an Internet Hotspot concentrator etc. It is a course that covers the basics for those that new to MikroTik RouterOS (or trying to understand it!) and concentrates on the basics of setting up a MikroTik device.

Course Objectives

After successfully completing the course attendees will be able to installing and upgrading the RouterOS, first login to the RouterOS using RouterBOARD, creating a simple network, static IP addressing and routing, basic dynamic routing using OSPF, creating a DHCP server and client, firewall filters and NAT rules, various VPN Tunnel types, simple queues for bandwidth control, hotspot configuration, wireless networks, web proxy for URL Filtering control and caching and The Dude.

Who should attend?

This course is aimed at network administrators, integrators, managers, IT consultants and other technical users who already use or would like to start using MikroTik RouterOS for their routing, firewall, hotspot and wireless projects. It is also a good introduction to routing and firewall systems, especially in a wireless environment.

Course Prerequisites

- Basic knowledge of **TCP/IP and routing**. We will be expanding on this during the course, but we suggest that the participants have a good working knowledge of IP addressing and routing.
- Basic knowledge of wired and wireless networking.

Course Duration

48 Hours, 16 Classes, 3 hours per class

Course Content

Lesson 01: MikroTik Installation, license and package up gradation

- PC and Router Based Mikrotik IOS Install
- License
- Version upgrade, version downgrade
- New package install

Lesson 02: IP Access and NAT

- WAN IP
- Subnet
- Gateway, DNS add
- Private IP NAT

Lesson 03: Bandwidth Manage

- Bandwidth Control: Day night package,
- Dedicate
- Shared Control
- Burst Limit

Lesson 04: IP restriction, user management and MRTG

- MAC restrict on IP
- MRTG create
- Administrative User restrictions
- Security
- Read Only User

Lesson 05: Proxy Configuration

- Web proxy
- Parent Proxy
- Web site Filter
- Virus Port Block
- Idle IP block
- IP lock / open

Lesson 06: DHCP Server

- DHCP Server Configure
- MAC restrict
- Bandwidth Control

Lesson 07: E-mail Backup and restore

- Backup create and restore

Lesson 08: Bridge, NTP, VLAN

- Bridge mode configure
- NTP Client (Time Server IP) Configure
- VLAN Configure
- Sub Interface Create,

Lesson 09: PPPoE server Configuration

- PPPoE Server
- Profile, User, Windows dialer

Lesson 10: Routing

- Static/ Specific routing
- OSPF for Auto redundancy
- OSPF for auto routing table update
- BGP for auto redundancy for LAN side
Real IP (Own IP and AS number required).

Lesson 11: Firewall and Log Generate

- Client's Browsing history(log) view and store in windows PC
- Basic Firewall
- Port monitoring
- Advance Firewall
- Mangle
- packet marking
- High Bandwidth on certain host/IP
- No bandwidth control on ping.

Lesson 12: VPN configuration

- VPN Server
- VPN client
- VPN windows dialer to connect any PC with private IP of head office.

Lesson 13: Link Redundancy solution

- Link Redundancy with fail over
- Load Balance
- Bandwidth merge of different link

Lesson 14: Hotspot solution

- Hotspot solution
- Prepaid Card Pin generate for different speed and different validity

Lesson 15: Wireless, Fiber, Radio Link Configuration

- Wireless access point
- Radio Link P2P or Multi Point
- Optical Fiber Connectivity etc.

