

ISP Setup and Administration using MikroTik

Course Duration

30 Hours, 10 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

- Networking Foundation.
- WAN IP
- Subnet
- Gateway, DNS add
- Private IP NAT
- Winbox Introduction.
- IP Addressing Study.

Lesson 03: Bandwidth Manage

- Simple Queues
- HTB/CBQ.
- PCQ Based Queues
- Bandwidth Control: Day night package,
- Dedicate
- Shared Control
- Burst Limit

Lesson 04: IP restriction, DHCP Server, user management and MRTG

- MAC restrict on IP
- MRTG create
- Administrative User restrictions
- Security
- Read Only User
- DHCP Server Configure
- MAC restrict
- Bandwidth Control

Lesson 05: Proxy Configuration

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

Lesson 06: Tools Introduction, Monitoring and E-mail Backup-Restore

- Backup create and restore
- Graph management
- Watchdog
- Bandwidth Test Tool.
- Advanced Traffic Generator.
- Health and Resource Monitoring.
- Scripting.
- Scheduler.

Lesson 07: Bridge, NTP, VLAN

- Bridge mode configure
- NTP Client (Time Server IP) Configure

- VLAN Configure
- Bonding.
- VRRP.

Lesson 08: PPPoE server Configuration

- PPPoE Server
- Profile, User, Windows dialer

Lesson 09: Routing

- Static/ Specific routing
- OSPF
- OSPF (Route Tuning)
- BGP (NON Transitive)
- BGP (Transitive)

Lesson 10: Firewall and Log Generate

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

Lesson 11: VPN configuration

- VPN Server
- VPN client
- IP Security (IPsec)
 - Ethernet Over IP (EOIP)
 - GRE Tunnel
 - IPIP Tunnel
- PPP Tunnels
 - PPP Tunnel
 - PPPoE Tunnel
 - PPTP
 - L2TP
 - Open VPN
- VPN windows dialer to connect any PC with private IP of head office.

Lesson 12: Link Redundancy solution

- Link Redundancy with fail over.
- Load Balance with STP.
- Load Balance with OSPF.
- Load Balance other mechanism.
- Bandwidth merge of different link

Lesson 13: Hotspot solution

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

Lesson 14: Wireless, Fiber, Radio Link Configuration

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