ISP Setup and Administration using MikroTik

Lab Work

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

Lesson 01: MikroTik Installation, License and Package Upgradation

* PC and Router Based MikroTik IOS Install
* License
* Version Upgrade/Downgrade
* New Package Install

Lesson 02: IP Access and NAT

* WAN IP
* Subnet
* Gateway
* DNS
* Private IP NAT

Lesson 03: Bandwidth Manage

* Bandwidth Control: Day/Night Package
* Dedicate Control
* Shared Control
* Burst Limit

Lesson 04: Bridge, NTP, VLAN Configuration

* Bridge Mode Configure (Port/VLAN)
* NTP Client (Time Server IP) Configure
* VLAN Configuration
* Sub Interface Create

Lesson 05: E-mail Backup and Restore Configuration (Automatic)

* Backup Create and Restore

Lesson 06: DHCP Server Configuration

* DHCP Server Configure
* MAC Restrict
* Bandwidth Control

Lesson 07: PPPoE Server Configuration

* PPPoE Server Configure
* Profile, User
* Windows Dialer (PPPoE-Client)

Lesson 08: Hotspot Server Solution

* Hotspot Server Configure
* Profile, User
* Package Limit

Lesson 09: VPN Configuration

* VPN Server Configure
* VPN Windows Dialer (VPN-Client)

Lesson 10: IP Restriction, User Management and MRTG

* MAC Restrict on IP
* MRTG Create
* Administrative User Restrictions
* Security
* Read Only User

Lesson 11: Firewall and Log Generate Configuration

* Client’s Browsing History (IP Log) Store & View in Windows PC
* Basic Firewall
* Port monitoring
* Advance Firewall
* Mangle
* Packet Marking
* High Bandwidth on Certain Host/IP
* No Bandwidth Control on Ping/ICMP

Lesson 12: IP Routing Protocols

* Static/Specific Routing
* OSPF Configuration
* OSPF for Auto Redundancy
* BGP Configuration
* BGP for Auto Redundancy for LAN Side Real IP (Own IP and AS Number Required).

Lesson 13: Link Redundancy Solution

* Link Redundancy with Fail Over
* Load Balance Between Two Providers

Lesson 14: Proxy Server Configuration

* Web Proxy Configure
* Web Site Filter
* Virus Port Block
* IP Lock/Open

Lesson 15: Wireless Access Point, Fiber, Radio Link Solution

* Wireless Access Point Configuration
* Describe About Optical Fiber Connectivity
* Describe About Radio Link P2P, P2M