

**Course Name: MTCNA**

**Course Time: 40 Hrs.**

**Course Prerequisites: TCP/IP Basic**

**Course Outline:**

❖ **MikroTik RouterOS Introduction**

- First time accessing the router + LAB
- Setup Internet connection via router + LAB
- TCP/IP Basics
- Upgrade RouterOS + LAB;
- Manage RouterOS logins + LAB
- Manage RouterOS services
- Backup and export/import configuration + LAB
- RouterOS license
- NTP client configuration
- Netinstall + LAB

❖ **MikroTik RouterOS Firewall**

- Firewall principles
- Firewall Filter in action
- RouterOS connection tracking
- Basic Address-List + LAB
- Source NAT
- Destination NAT
- NAT limitations

❖ **MikroTik RouterOS QoS**

- Simple Queue + LAB
- Traffic Prioritization + LAB
- Simple Mangle and Tree Queue + LAB
- PCQ setup + LAB
- Bandwidth Test + LAB
- Monitoring

❖ **MikroTik RouterOS Network Management**

- ARP + LAB
- DHCP server and client + LAB
- HotSpot + LAB
- Proxy + LAB
- Store
- RouterOS tools

❖ **MikroTik RouterOS Wireless**

- 802.11a/b/g/n Concepts
- Setup simple wireless link + LAB

- MAC-address filtering + LAB
- Wireless Security and Encryption + LAB
- 802.11n specific settings + LAB
- MikroTik wireless protocols + LAB
- Monitoring Tools

#### ❖ MikroTik RouterOS Bridging

- Bridging concepts + LAB
- Bridge wireless networks + LAB
- Bridge Wireless and remote networks + LAB

#### ❖ MikroTik RouterOS Routing

- Routing overview
- Static routing
- OSPF + LAB

#### ❖ MikroTik RouterOS Tunnels

- Secure local network
- PPP settings
- IP pool
- Secure remote networks communication + LAB

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