



Introduction to MikroTik RouterOS and RouterBOARDS

Training outline

Duration:	1 day
Objectives:	By the end of this training session, the attendant will be familiar with RouterOS software and RouterBOARD products. He/she will understand how to do basic configuration and troubleshooting of a MikroTik router.
Target audience:	Anyone who wants to learn how to use and configure MikroTik routers.
Course prerequisites:	It is recommended that the attendant is familiar with TCP/IP networking fundamentals.

Title	Objective
Understanding TCP/IP	<ul style="list-style-type: none"> • Understanding TCP/IP <ul style="list-style-type: none"> • Exploring the Layers of the TCP/IP Model • Understanding IP Addressing <ul style="list-style-type: none"> • Using Public IP Addresses • Using Private IP Addresses • Examining IP Addressing Methods • Understanding the Structure of IP Addresses • Subnet Masks • Understanding Default Gateways • Subnetting and Supernetting IP Networks <ul style="list-style-type: none"> • Understanding Subnetting • Estimating Subnet Address Ranges • Summarizing Routes Through Supernetting • Using Classless Interdomain Routing • Using Variable-Length Subnet Masks • Installing and Configuring TCP/IP <ul style="list-style-type: none"> • Installing TCP/IP • Examining TCP/IP Configuration Methods
Introduction	<ul style="list-style-type: none"> • What is RouterOS <ul style="list-style-type: none"> • RouterOS license levels • What is RouterBOARD • RouterBOARD model overview

Title	Objective
<p>Quick Set</p>	<ul style="list-style-type: none"> • Default configuration <ul style="list-style-type: none"> • First time accessing the router <ul style="list-style-type: none"> ○ WinBox, MAC-WinBox, WebFig • Quick Set mode overview • Home AP usage <ul style="list-style-type: none"> ○ Internet (automatic, static, PPPoE) ○ Local network ○ Wireless, Guest wireless ○ WPS ○ VPN access (PPTP) ▪ DynamicDNS (ipcloud) • CPE usage <ul style="list-style-type: none"> ○ Configuration (router, bridge) ○ Wireless • Upgrading RouterOS • Setting a password • Setting the identity • Quick Set in WebFig
<p>Basic Firewall</p>	<ul style="list-style-type: none"> • Firewall filters in action <ul style="list-style-type: none"> ○ Default filters ○ Filter actions • Source NAT <ul style="list-style-type: none"> ○ Masquerade and src-nat action • Destination NAT <ul style="list-style-type: none"> ○ dst-nat and redirect action

Title	Objective
<p>Management</p>	<ul style="list-style-type: none"> • Managing configuration backups <ul style="list-style-type: none"> ○ Saving and restoring a backup ○ Downloading a backup file to the computer ○ Difference between a .backup and an export (.rsc) file • Resetting a RouterOS device • RouterOS tools <ul style="list-style-type: none"> ○ Ping, traceroute • RouterOS monitoring <ul style="list-style-type: none"> ○ Interface traffic monitor ○ Torch ○ Graphs • Sources of additional information <ul style="list-style-type: none"> ○ wiki.mikrotik.com ○ mum.mikrotik.com ○ forum.mikrotik.com ○ Distributor and consultant support • Contacting support@mikrotik.com <ul style="list-style-type: none"> ○ supout.rif, autosupout.rif and viewer ○ System logs, enabling debug logs ○ Readable configuration (item comments and names)
<p>Training</p>	<ul style="list-style-type: none"> • Overview of training courses and MikroTik certification <ul style="list-style-type: none"> ○ MTCNA <ul style="list-style-type: none"> ○ MTCRE ○ MTCWE ○ MTCTCE ○ MTCUME ○ MTCINE