



Certified Traffic Control Engineer (MTCTCE)

Training outline

Duration:	2 days
Outcomes:	By the end of this training session, the student will be able to manage quality of service for the network by using RouterOS queues, firewall and other features
Target audience:	Network engineers and technicians wanting to control the traffic flow in the network
Course prerequisites:	MTCNA certificate

Title	Objective
<p>Module 1 Packet Flow Diagram</p>	<ul style="list-style-type: none"> • Why this diagram is necessary? • Full overview of all things covered by the diagram • Simple examples how packet travels through the diagram <ul style="list-style-type: none"> • Routing • Bridging • Connection to router • More complex examples of diagram usage • Module 1 laboratory
<p>Module 2 Firewall Filter, NAT, Mangle</p>	<ul style="list-style-type: none"> • Connection tracking • Filter <ul style="list-style-type: none"> • Chains (default/custom) • All rule "actions" covered • Most common rule "conditions" covered • NAT <ul style="list-style-type: none"> • Chains (default/custom) • All rule "actions" covered • Most common rule "conditions" covered • NAT helpers • Mangle <ul style="list-style-type: none"> • Chains (default/custom) • All rule "actions" covered • Most common rule "conditions" covered • Some complicated rule "conditions" covered ("advanced", "extra" tab) • UPnP • Module 2 laboratory

<p>Module 3 Quality of Service</p>	<ul style="list-style-type: none"> • HTB <ul style="list-style-type: none"> • HTB general information • HTB implementation (queue tree) • HTB structure • HTB Dual Limitation • HTB priority • Burst • Queue types <ul style="list-style-type: none"> • FIFO • SFQ • RED • PCQ • Queue size • Simple queues • Simple queue and queue tree interaction • Module 3 laboratory
<p>Module 4 DNS Client, Cache</p>	<ul style="list-style-type: none"> • Basic configuration • Static DNS Entry • Module 4 laboratory
<p>Module 5 DHCP Client, Relay, Server</p>	<ul style="list-style-type: none"> • DHCP communication analysis • DHCP client identification/configuration • DHCP server configuration: <ul style="list-style-type: none"> • DHCP networks • DHCP options (build-in and custom) • IP Pool • Advanced DHCP • DHCP relay configuration • Module 5 laboratory
<p>Module 6 Web Proxy</p>	<ul style="list-style-type: none"> • Basic configuration • Proxy rule lists <ul style="list-style-type: none"> • Access list • Direct Access list • Cache list • Regular expression • Module 6 laboratory