MiKroTiK

ACADEMY

MTCTCE outline

CERTIFIED TRAFFIC CONTROL ENGINEER

MiKroTiK
MTCTCE

Duration:	2 days
Outcomes:	MTCTCE is one of the six, second level courses on the MikroTik certification path. This course offers deeper knowledge in management, analysis, control and traffic prioritisation methodologies and network services. The main headlines of this course are Firewall Filter / NAT / Mangle and Quality of Service (QoS). All Participants who pass the exam will receive an official MikroTik MTCTCE certification.
Target Audience:	Network Engineers and technicians wanting to deploy and support MikroTik wireless networks.
Course prerequisites:	A good working knowledge of TCP/IP Basics is required. You must be MikroTik MTCNA Certified (current or expired certificate is fine) to sit this course.

Title	Objective
Module 1 Packet Flow Diagram	• Why this diagram is necessary? • Full overview of all things covered by the diagram • Simple examples how packet travels through the diagram • Routing • Bridging • Connection to router • More complex examples of diagram usage • **Module 1 laboratory**

Title	Objective
Module 2 Firewall Filter, NAT, Mangle	• Connection tracking • Filter • Chains (default/custom) • All rule "actions" covered • Most common rule "conditions" covered • NAT • Chains (default/custom) • All rule "actions" covered • Most common rule "conditions" covered • NAT helpers • Mangle • Chains (default/custom) • All rule "actions" covered • Most common rule "conditions" covered • Some complicated rule "conditions" covered ("advanced", "extra" tab) • UPnP • **Module 2 laboratory**

Module 3
Quality of Service
	• HTB
	   • HTB general information
	   • HTB implementation (queue tree)
	   • HTB structure
	   • HTB Dual Limitation
	   • HTB priority
	• Burst
	• Queue types
	   • FIFO
	   • SFQ
	   • RED
	   • PCQ
	   • Queue size
	• Simple queues
	• Simple queue and queue tree interaction
	• **Module 3 laboratory**

Module 4 DNS Client, Cache	• Basic configuration • Static DNS Entry • **Module 4 laboratory**

Module 5
DHCP Client,
Relay, Server
	• DHCP communication analysis
	• DHCP client identification/configuration
	• DHCP server configuration:
	   • DHCP networks
	   • DHCP options (build-in and custom)
	   • IP Pool
	   • Advanced DHCP
	• DHCP relay configuration
	• **Module 5 laboratory**

Module 6
Web Proxy
	• Basic configuration
	• Proxy rule lists
	   • Access list
	   • Direct Access list
	   • Cache list
	• Regular expression
	• **Module 6 laboratory**