

Certificación



MikroTik Certified
Network Associate

MTCNA



Clases Presenciales por 3 días

Esquema de Entrenamiento



Duración: 3 días (Presencial)

Objetivo del Curso :

Al final de esta sesión de capacitación, el estudiante estará familiarizado con el software RouterOS y los productos RouterBOARD y podrá conectar al cliente a Internet.

También podrá configurar, gestionar, resolver problemas básicos de un enrutador MikroTik y proporcionar servicios básicos a los clientes.

Público Objetivo:

Ingenieros de redes y técnicos que desean implementar y dar soporte:

- Redes corporativas
- CPE de cliente (WISP e ISP)

Pre-requisitos:

El estudiante debe tener una buena comprensión de TCP / IP y sub redes.

MTCNA

Módulo uno Introduction

- **About MikroTik**

- What is RouterOS
- What is RouterBOARD

- **First time accessing the router**

- WinBox and MAC-WinBox
- WebFig and Quick Set
- Default configuration

- **RouterOS CLI principles**

- <tab>, double <tab>, "?", navigation
- Command history and its benefits

- **RouterOS CLI principles**

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- **Initial configuration (Internet access)**

- WAN DHCP-client
- LAN IP address and default gateway
- Basic Firewall - NAT masquerade

- **Upgrading RouterOS**

- Package types
- Ways of upgrading
- RouterBOOT firmware upgrade

Módulo uno

Introduction



- **Resetting a RouterOS device**
 - **Reinstalling a RouterOS device (Netinstall)**
 - **RouterOS license levels**
 - **Sources of additional information**
 - wiki.mikrotik.com
 - forum.mikrotik.com
 - mum.mikrotik.com
 - Distributor and consultant support
 - **Module 1 laboratory**
- **Router identity**
 - **Manage RouterOS logins**
 - **Manage RouterOS services**
 - **Managing configuration backups**
 - Saving and restoring the backup
 - Difference between a backup and an export (.rsc) file
 - Editing an export file

Módulo dos DHCP

- **DHCP server and client**
 - DHCP client
 - DHCP server setup
 - Leases management
 - DHCP server network configuration
- **Address Resolution Protocol (ARP)**
 - ARP modes
 - RouterOS ARP table
- **Module 2 laboratory**

Módulo tres Bridging

- **Bridging overview**
 - Bridge concepts and settings
 - Creating bridges
 - Adding ports to bridges
- **Bridge wireless networks**
 - Station bridge
- **Module 3 laboratory**

Módulo cuatro Routing

- **Routing overview**
 - Routing concepts
 - Route flags
- **Static routing**
 - Creating routes
 - Setting default route
 - Managing dynamic routes
 - Implementing static routing in a simple network
- **Module 4 laboratory**

Módulo cinco Wireless

- **802.11a/b/g/n/ac Concepts**
 - Frequencies (bands, channels) data-rates / chains (tx power, rx sensitivity, country regulations)
- **Setup a simple wireless link**
 - Access Point configuration
 - Station configuration
- **Wireless Security and Encryption**
 - Access List
 - Connect List
 - Default Authenticate
 - Default Forward
 - WPA-PSK, WPA2-PSK
 - WPS accept, WPS client
- **Monitoring Tools**
 - Snooper
 - Registration table
- **Module 5 laboratory**

Módulo seis

Firewall

- **Firewall principles**
 - Connection tracking and states
 - Structure, chains and actions
- **Firewall Filter in action**
 - Filter actions
 - Protecting your router (input)
 - Protection your customers (forward)
- **Basic Address-List**
- **Source NAT**
 - Masquerade and src-nat action
- **Destination NAT**
 - dst-nat and redirect actions
- **FastTrack**
- **Module 6 laboratory**

Módulo siete

QoS

- **Simple Queue**
 - Target
 - Destinations
 - Max-limit and limit-at
 - Bursting
- **One Simple queue for the whole network (PCQ)**
 - pcq-rate configuration
 - pcq-limit configuration
- **Module 7 laboratory**

Módulo ocho

Tunnels

- **PPP settings**
 - PPP profile
 - PPP secret
 - PPP status
- **IP pool**
 - Creating pool
 - Managing ranges
 - Assigning to a service
- **Secure local network**
 - PPPoE service-name
 - PPPoE client
 - PPPoE server
- **Point-to-point addresses**
- **Secure remote networks communication**
 - PPTP client and PPTP server (Quick Set)
 - SSTP client
- **Module 8 laboratory**

Módulo nueve

Misc

- **RouterOS tools**
 - E-mail
 - Netwatch
 - Ping
 - Traceroute
 - Profiler (CPU load)
- **Monitoring**
 - Interface traffic monitor
 - Torch
 - Graphs
 - SNMP
 - The Dude
- **Contacting**
 - supout.rif, autosupout.rif and viewer
 - System logs, enabling debug logs
 - Readable configuration (item comments and names)
 - Network diagrams
- **Module 9 laboratory**

Mario Clep

- Chief Technology Officer de MKE Solutions
- Entrenador Certificado por MikroTik desde el 2010
- Especialista en Seguridad
- Certificaciones Oficiales: MTCNA, MTCRE, MTCTCE INE y MTCIPv6

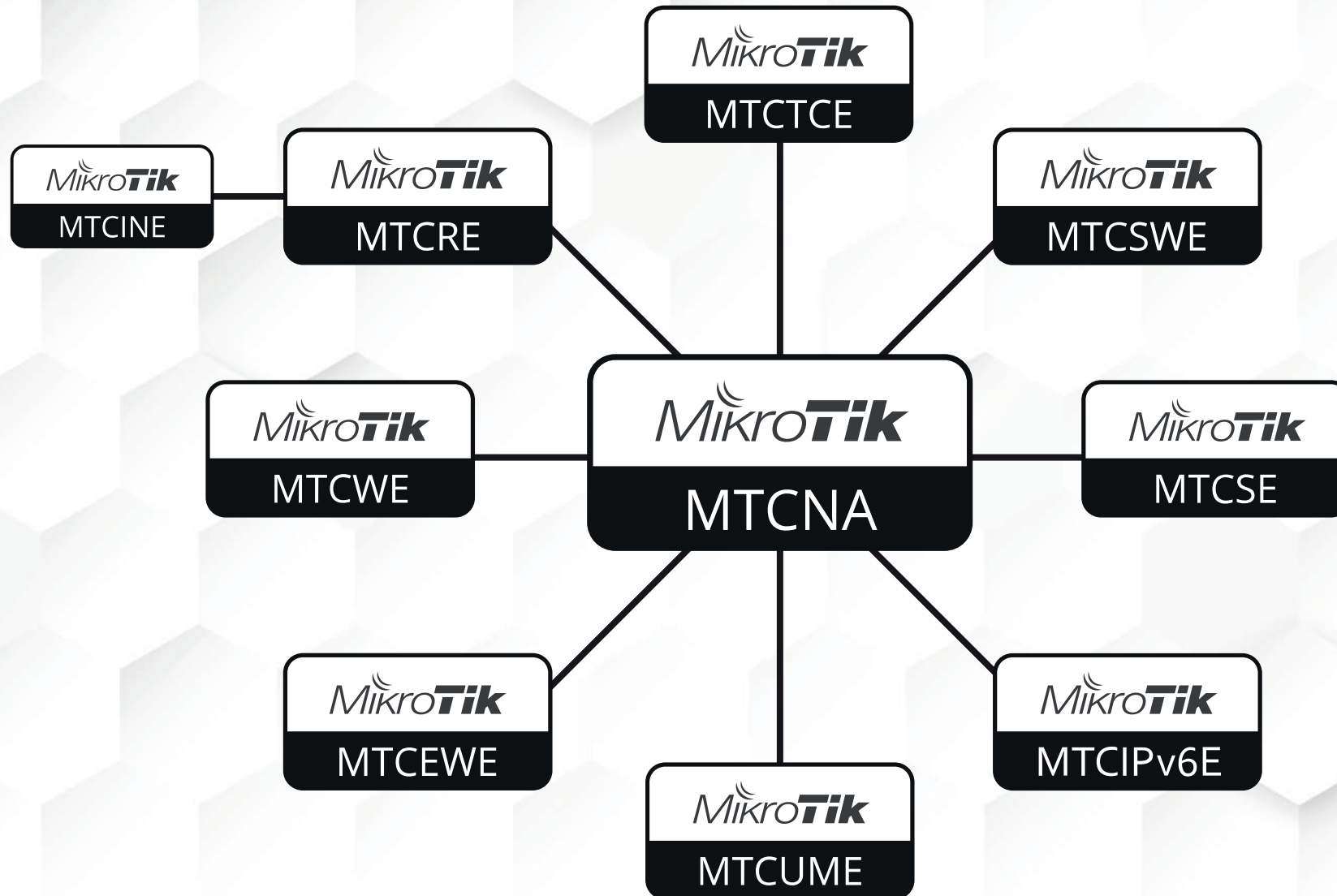


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- Chief Technology Officer de MKE Solutions
- Entrenador Certificado por MikroTik desde el 2010
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Programa de formación certificados por MikroTik



Horario, duración y lugar



- Fecha:** Febrero 2025
- Duración:** 3 días (Lunes, Martes y Miércoles)
- Horario:** de 9 am a 6 pm.
- Lugar:** Centro de Estudios Comutel Academia
Fray Angélico 145 - San Borja



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Comutel Academia

"Juntos hacemos que tus metas se cumplan"



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