Certificación Oficial

MTCNA

Comutel Academia | MIKROTIK TRAINING CENTER

Inicio : 17 de Marzo 2025

Esquema de Entrenamiento

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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.

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Temario

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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

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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

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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**

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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**

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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**

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Entrenadores

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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

Maximiliano Dobladez

- 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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Programa de formación certificados por MikroTik

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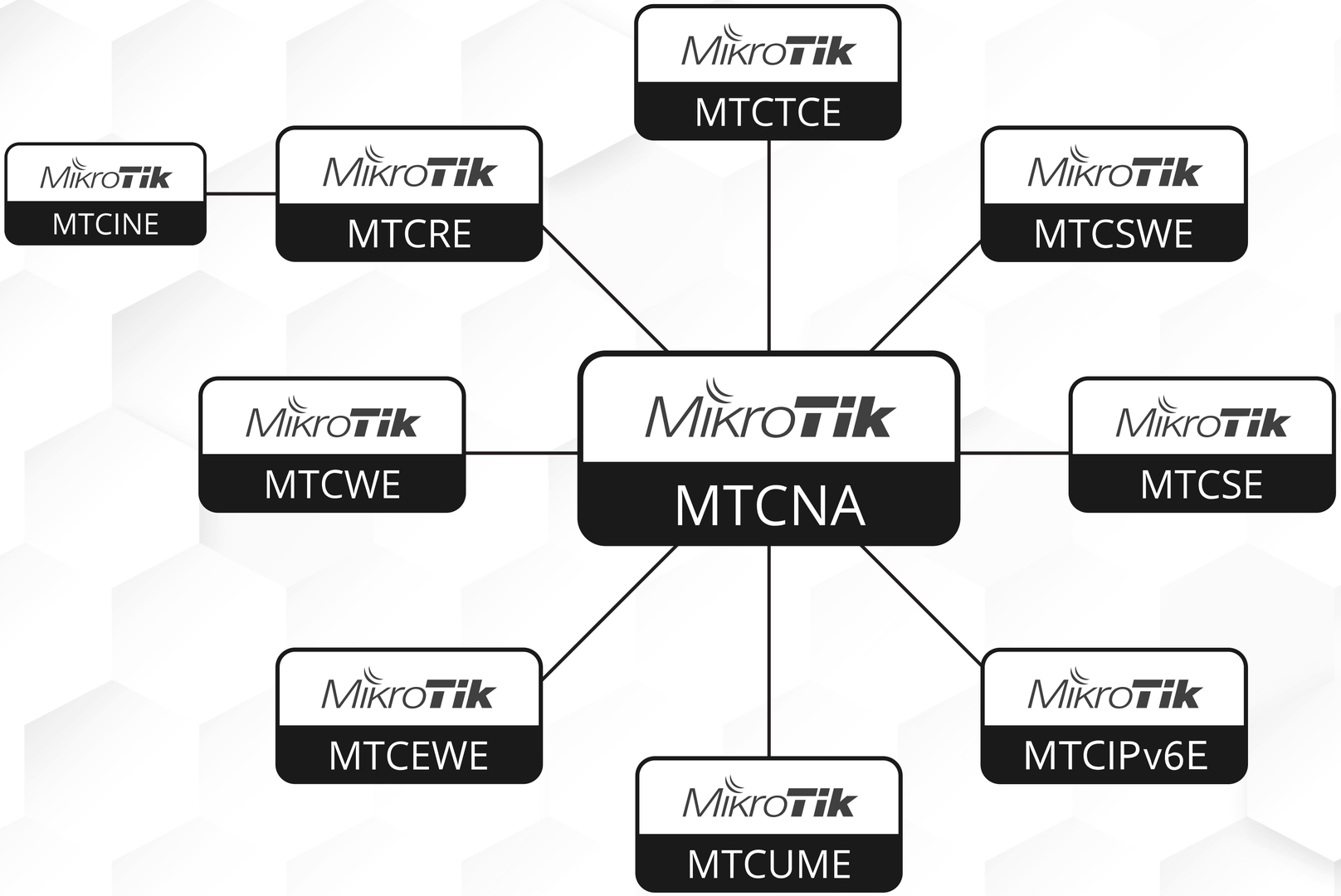

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Horario, duración y lugar

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Fecha: Del 17 al 19 de Marzo 2025

Duración: 3 días

Horario: de 9 am a 6 pm.

Lugar: Centro de Estudio Comutel
Fray Angélico 145 - San Borja

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