

# دوره MTCUME میکروتیک | MikroTik Certified User Management Engineer

شرح مختصر

دوره مدیریت شبکه ها در مقیاس بزرگ

مروری بر دوره

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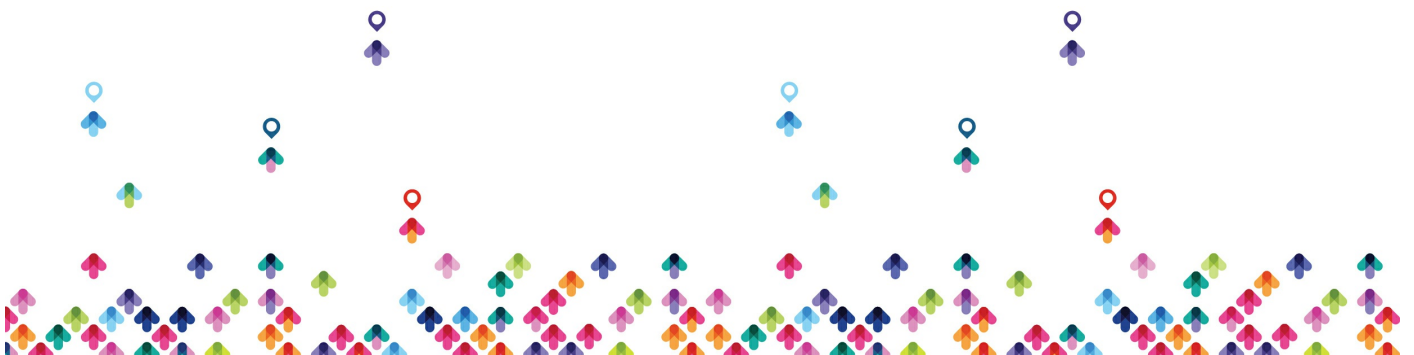
در پایان این دوره دانشجویان قادر خواهند بود تا با اطمینان شبکه های بزرگ مبتنی بر RouterOS را از طریق مدیریت متمرکز کاربران مدیریت کنند.

سرفصل ها (حضور)

سرفصل ها

## Module ۱ : PPP

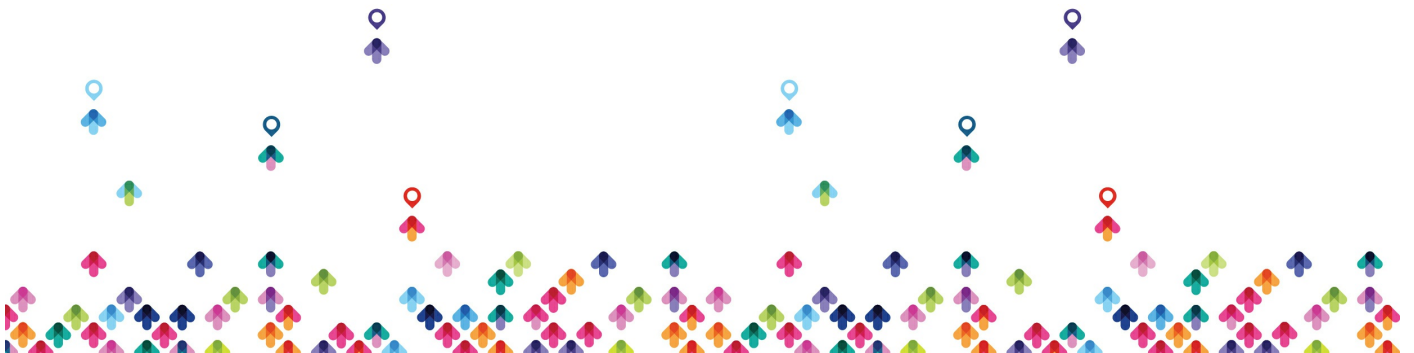
- PPP Profile
- Local and remote addresses
- Incoming and outgoing filters
- Address list
- Change TCP-MSS
- Use encryption
- Session timeout
- Rate-limit configuration



- Only-one setting
  - PPP Secret
- Service and Profile
- Local and Remote address
- Routes configuration
- Limit Bytes In/Limit Bytes Out configuration
  - IP Pool
- Set addresses ranges
- Next pool options

## **Module ۲ : PPTP, L2TP**

- PPTP and L2TP
- Theory
- Comparison
  - PPTP Client configuration
  - Client setup
  - Set profile
  - Dial on demand
  - Add default route and static routes
- PPTP Server configuration
- Enable server
- Setup profiles
- Add clients to PPP secret
- Set static interfaces for clients
- L2TP Client configuration
- Client setup
- Configure profile



- Dial on demand
- Add default route and static routes
  - L2TP Server configuration
- Enable server
- Set profiles
- Add clients to PPP secret
- Set Static interfaces for clients

### Module ۳ : PPPoE

- PPPoE server and client
  - Theory
  - Usage environment
  - Comparison to other PPP protocols
- PPPoE client configuration
  - Client setup
  - Select interface
  - Service name
  - Configure profile
- PPPoE Server configuration
  - Enable PPPoE server
  - Set profiles
  - Add clients to PPP secret
  - Add Static interfaces for clients
  - Secure server by removing any IP address from PPPoE server interface
- Encryption
  - Set profile without encryption
  - Set profile with encryption



- Configure PPPoE client without encryption

- Interface ECMP

- Set ECMP routes for PPP interfaces

### **Module ۴ : Bridging**

- L۲TP and EoIP

- Set L۲TP tunnel

- Set EoIP tunnel

- Create bridge and add necessary interfaces to ports

- Confirm you have Ethernet connectivity between remote nodes

- L۲TP and VPLS

- Set L۲TP tunnel

- Set VPLS tunnel

- Create bridge and add necessary interfaces to ports

- L۲TP and BCP

- Set L۲TP tunnel

- Use BCP to bridge PPP interface

- Add to bridge necessary interface

- Multilink Protocol

- Enable multilink by specifying correct MRRU settings

- Disable mangle rules for MSS adjustment

- MLPPP (optional)

- Setup client and specify multiple interfaces for one client

- Set PPPoE server with MLPPP support

### **Module ۵ : IPSec**

- Introduction

- Theory and concepts



- Comparison to other VPN protocols
  - IPSec Peer
- Use different authentication methods
- IPSec exchange modes
- Encryption and hash algorithms
- NAT-Traversal
- Lifetime and lifebytes
- DPD protocol
  - Policy
- IPSec protocol and action
- Tunnels
- Generate dynamic Policy
  - Proposal
- Encryption and authentication algorithms
- Lifetime
- PFS
  - Installed-SA
- Flush SA
  - Create IPSec between two routers with NAT
- Set peer
- Set policy
- Set NAT rules
- Confirm the secure link is established

## Module ۶ : HotSpot

- Introduction
- Concepts



- Usage environments
- Setup HotSpot with default settings
  - HotSpot Login Methods
- HTTP CHAP/PAP
- MAC
- Cookie
- HTTPS
- Trial
- RADIUS
  - Users
  - Add users
  - Set MAC-address for user
  - Set MAC-address for username
  - Limit Uptime and Limit Bytes In/Out
  - Reset limits for user
  - Monitor Users
  - Host Table
  - Active Table
  - SNMP for users
  - Monitor Users
  - Host Table
  - Active Table
  - SNMP for users
  - Profile
  - Keepalive timeout
  - Shared users

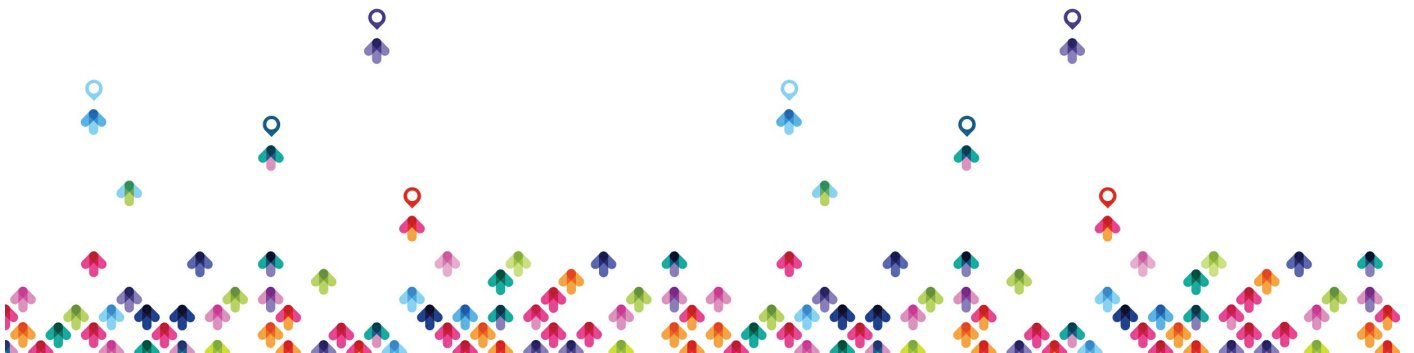


- Rate-Limit
- Address-list
- Incoming/Outgoing filter
- Incoming/Outgoing Packet Mark
- Bypass HotSpot
- Walled garden
- Walled garden IP
- IP binding
- Customize HotSpot
- Advertisement
- Customize pages

## Module ۷ : Radius

- RADIUS client
- Add radius client
- Set service
- Use RADIUS for the specific service
- RADIUS server
  - User manager
- Install the latest user-manager
  - Add routers
  - Add users
  - Set profile
  - RADIUS incoming

مخاطبان دوره



مخاطبان دوره

- مهندسين و تكنسين های شبکه که وظیفه توسعه و پشتیبانی از شبکه در مقیاس های بزرگ را بر عهده دارند.

## پیش نیازها

پیش نیازها

- [دوره میکروتیک MTCNA | آموزش MTCNA](#)

## دوره های مرتبط

دوره های مرتبط

[دوره میکروتیک MTCNA | آموزش MTCNA](#)

[دوره MTCRE میکروتیک | MikroTik Certified Routing Engineer](#)

