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MikroTik

Basic Setup

1. E1 – bridge client (Check DNS)
2. Create bridge
3. Add ports to the bridge (E2, E3, E4)
4. Add IPv4 to the bridge interface (192.168.x.1/24)
5. Create DHCP Server on the bridge interface
6. NAT (Srcnat/Out Interface=E1/masquerade)
7. PING / Traceroute

WiFi

1. Add IPv4 to the wlan1 interface (172.16.x.1/24)
2. Create DHCP Server on the wlan1 interface
3. Create security Profiles (Wireless)
4. Create AP (wlan1/Wireless)

Routing

- Dst. Address: networks which can be reached
- Gateway: IP address of the next router to reach the destination

Routing

New Route

General Attributes

Dst. Address: 192.168.90.0/24

Gateway: 192.168.89.5

Check Gateway:

Type: unicast

Distance:

Scope: 30

Target Scope: 10

Routing Mark:

Pref. Source:

OK
Cancel
Apply
Disable
Comment
Copy
Remove

enabled active

IP → Routes

Routing

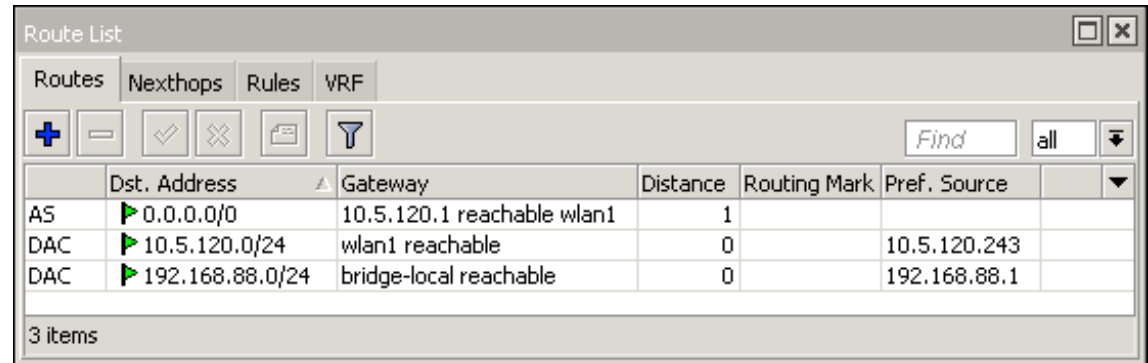
- If there are two or more routes pointing to the same address, the more precise one will be used
 - Dst: 192.168.90.0/24, gateway: 1.2.3.4
 - Dst: 192.168.90.128/25, gateway: 5.6.7.8
 - If a packet needs to be sent to 192.168.90.135, gateway 5.6.7.8 will be used

Default Gateway

- Default gateway: a router (next hop) where all the traffic for which there is no specific destination defined will be sent
- It is distinguished by 0.0.0.0/0 destination network

Route Flags

- A - active
- C - connected
- D - dynamic
- S - static



The screenshot shows a 'Route List' window with a table of routes. The table has columns for 'Dst. Address', 'Gateway', 'Distance', 'Routing Mark', and 'Pref. Source'. The routes listed are:

	Dst. Address	Gateway	Distance	Routing Mark	Pref. Source
AS	0.0.0.0/0	10.5.120.1 reachable wlan1	1		
DAC	10.5.120.0/24	wlan1 reachable	0		10.5.120.243
DAC	192.168.88.0/24	bridge-local reachable	0		192.168.88.1

3 items

IP → Routes

Static Routing

- Static route defines how to reach a specific destination network
- Default gateway is also a static route. It directs all traffic to the gateway



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