

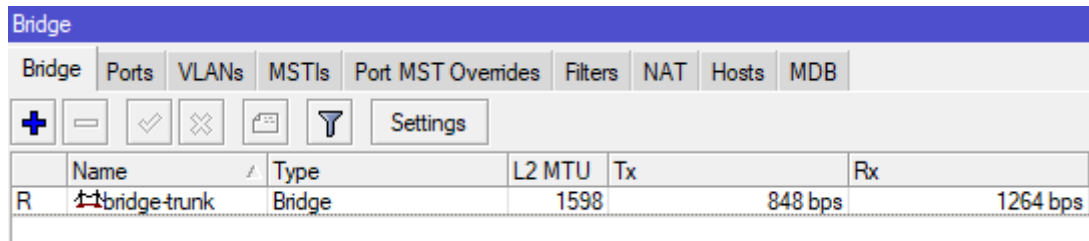
De volgende programmering is van toepassing wanneer je een Mikrotik als router gebruikt in combinatie met een UBNT Unify Switch met Unify WIFI access points en je wilt VLAN's toepassen op de SSID's

Mikrotik:

IP adres, subnetmask, Default Gateway en masquerade is geconfigureerd op Ether 1 (dus als WAN verbinding)

Maak een trunk Bridge aan:

```
interface bridge add name=bridge-trunk protocol-mode=rstp
```



Bridge								
Bridge	Ports	VLANs	MSTIs	Port MST Overrides	Filters	NAT	Hosts	MDB
R	↑↑bridge-trunk	Bridge	1598	848 bps	1264 bps			

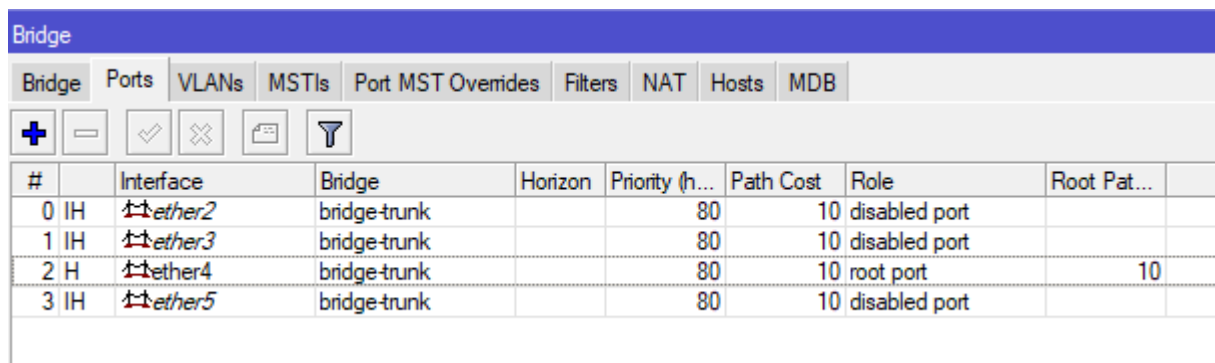
Voeg de gewenste interface poorten toe waarop je de VLANS geforward wilt hebben:

```
interface bridge port add interface=ether2 bridge=bridge-trunk
```

```
interface bridge port add interface=ether3 bridge=bridge-trunk
```

```
interface bridge port add interface=ether4 bridge=bridge-trunk
```

```
interface bridge port add interface=ether5 bridge=bridge-trunk
```

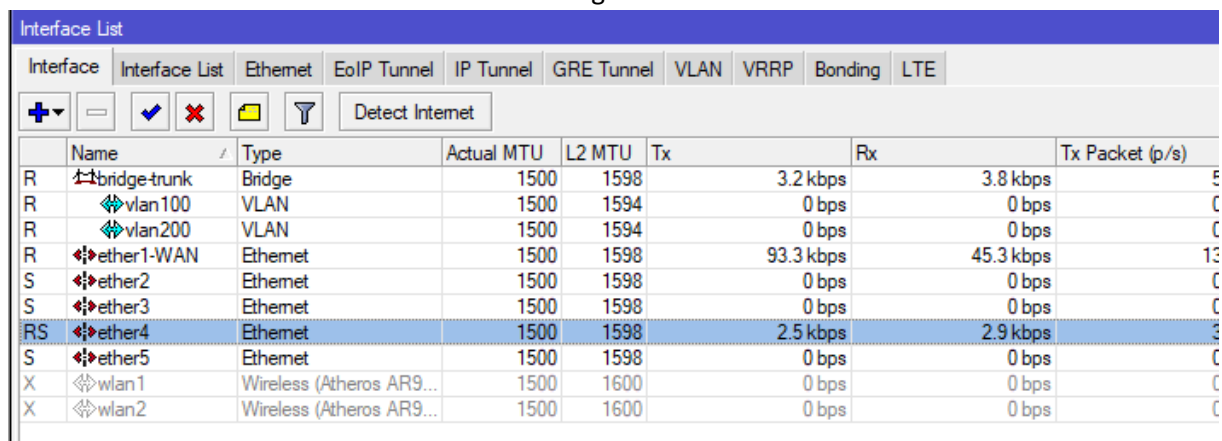


#	Interface	Bridge	Horizon	Priority (h...)	Path Cost	Role	Root Pat...
0	IH ↑↑ether2	bridge-trunk		80	10	disabled port	
1	IH ↑↑ether3	bridge-trunk		80	10	disabled port	
2	H ↑↑ether4	bridge-trunk		80	10	root port	10
3	IH ↑↑ether5	bridge-trunk		80	10	disabled port	

Voeg de VLAN interfaces toe aan de Bridge:

```
interface vlan add name=vlan-100 interface=bridge-trunk vlan-id=100
```

```
interface vlan add name=vlan-200 interface=bridge-trunk vlan-id=200
```













Interface List									
Interface	Interface List	Ethernet	EoIP Tunnel	IP Tunnel	GRE Tunnel	VLAN	VRRP	Bonding	LTE
R	↑↑bridge-trunk	Bridge							
R	↔vlan100	VLAN							
R	↔vlan200	VLAN							
R	↔ether1-WAN	Ethernet							
S	↔ether2	Ethernet							
S	↔ether3	Ethernet							
RS	↔ether4	Ethernet							
S	↔ether5	Ethernet							
X	↔wlan1	Wireless (Atheros AR9...)							
X	↔wlan2	Wireless (Atheros AR9...)							






Maak IP-adressen aan voor de VLAN interfaces:

```
ip address add address=192.168.100.1/24 interface=vlan-100
```

```
ip address add address=192.168.200.1/24 interface=vlan-200
```

Address List				
     				
	Address	Network	Interface	
	 192.168.1.1/24	192.168.1.0	bridge-trunk	
D	 192.168.202.50/24	192.168.202.0	ether1-WAN	
	 192.168.100.1/24	192.168.100.0	vlan100	
	 192.168.200.1/24	192.168.200.0	vlan200	

Maak dmv “DHCP setup” DHCP servers aan op de VLAN’s

DHCP Server						
DHCP Networks Leases Options Option Sets Alerts						
     DHCP Config DHCP Setup						
Name	Interface	Relay	Lease Time	Address Pool	Add ARP For Leases	
DHCP VLAN 100	vlan100		00:10:00	dhcp_pool1	no	
DHCP VLAN 200	vlan200		00:10:00	dhcp_pool2	no	
dhcp1	bridge-trunk		00:10:00	dhcp_pool0	no	

Sluit vervolgens de UBNT Unify Switch aan op 1 van de poorten die zich in de Bridge bevinden.

Open de webinterface van de UNBT Controller.

Ga naar “Networks” en maak hier 2 “VLAN Only” netwerken met VLAN id 100 en 200:

CREATE NEW NETWORK

Name:

Purpose: Corporate Guest VLAN Only Remote User VPN USG Site-to-Site VPN USG VPN Client USG

VLAN:

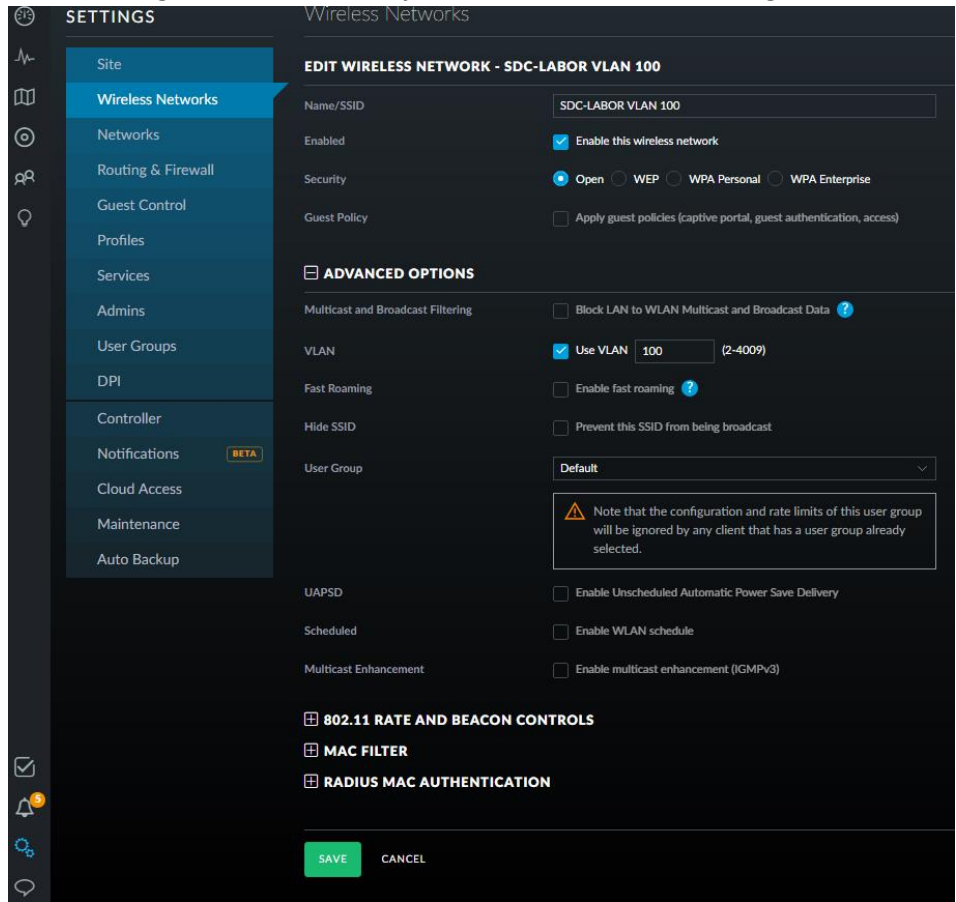
IGMP Snooping: Enable IGMP snooping

DHCP Guarding: Enable DHCP guarding [?](#)

SETTINGS Networks

NAME ↑	PURPOSE	SUBNET	VLAN	ACTIONS
LAN	Corporate	192.168.1.1/24		EDIT
vlan100	VLAN Only		100	EDIT DELETE
vlan200	VLAN Only		200	EDIT DELETE

Maak vervolgens de SSID's aan bij "Wireless Networks" met de gewenste VLAN's



EDIT WIRELESS NETWORK - SDC-LABOR VLAN 100

Name/SSID: SDC-LABOR VLAN 100

Enabled: Enable this wireless network

Security: Open WEP WPA Personal WPA Enterprise

Guest Policy: Apply guest policies (captive portal, guest authentication, access)

ADVANCED OPTIONS

Multicast and Broadcast Filtering: Block LAN to WLAN Multicast and Broadcast Data

VLAN: Use VLAN 100 (2-4009)

Fast Roaming: Enable fast roaming

Hide SSID: Prevent this SSID from being broadcast

User Group: Default

802.11 RATE AND BEACON CONTROLS

MAC FILTER

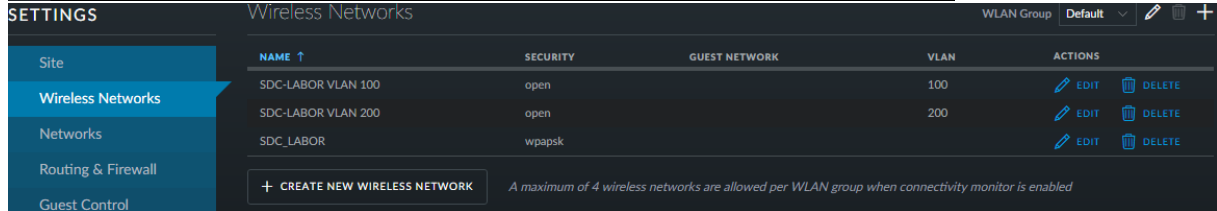
RADIUS MAC AUTHENTICATION

UAPSD: Enable Unscheduled Automatic Power Save Delivery

Scheduled: Enable WLAN schedule

Multicast Enhancement: Enable multicast enhancement (IGMPv3)

SAVE CANCEL



WLAN Group: Default

NAME ↑	SECURITY	GUEST NETWORK	VLAN	ACTIONS
SDC-LABOR VLAN 100	open		100	EDIT DELETE
SDC-LABOR VLAN 200	open		200	EDIT DELETE
SDC_LABOR	wpa2psk			EDIT DELETE

[+ CREATE NEW WIRELESS NETWORK](#) A maximum of 4 wireless networks are allowed per WLAN group when connectivity monitor is enabled