

# Ruckus Unleashed

U primjeru konfiguracije koriste se odvojeni management i klijentski VLAN:

- AP MGMT (VLAN 100)
- eduroam (VLAN 411)

Switchport prema AP-u konfiguriran je na sljedeći način:

- UNTAGGED za AP MGMT
- TAGGED za eduroam i AP MGMT

Adresa RADIUS poslužitelja u primjeru: 161.53.2.74

RADIUS portovi u primjeru: 1812 i 1813

Management mreža za AP u primjeru: 10.10.10.0/24

Mreža za eduroam korisnike u primjeru: 10.111.0.0/16

Obje mreže imaju izlaz prema Internetu.

## Korištena oprema

Ruckus R310 (200.7.10.202.94)

## Konfiguracija

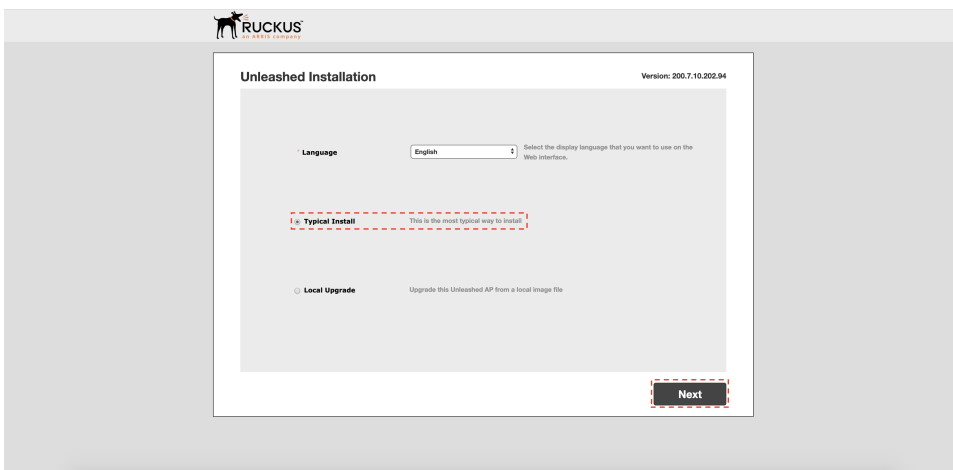
### GUI

1. Odaberite jedan AP koji će biti master te [slijedite upute proizvođača](#) o načinu povezivanja na AP kako bi započeli inicijalnu konfiguraciju.




Ne spajajte ostale AP-ove prije nego li završite proces podizanja master kontrolera.

2. Započnite konfiguraciju master AP-a odabirom jezika te načina instalacije



3. Unesite sistemsko ime te odaberite regulatornu domenu



1 System 2 IP setting 3 Wireless LAN 4 Administrator 5 Review

Version: 200.7.10.200.04

Name:

Country Code:

Mesh: ☐


Name your system 32 characters max using alphanumeric characters excluding space.

Select the regulatory country code for the Unleashed Network.

Select this check box to enable Mesh for the Unleashed Network.

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4. Odaberite ručno postavljanje adrese te unesite mrežne postavke AP-a



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Gateway Mode

WAN IP Address

Manual ☒ DHCP

IP Address:

Netmask:

Gateway:

Primary DNS Server:

Secondary DNS Server:

LAN & WLAN Client IP Addresses

DHCP Server ☒

Starting IP:


Ending IP:

Number of IPs:

Lease Time:

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5. Unesite postavke za inicijalni SSID



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Name (ESSID):


Password Protect (WPA2): ☒ Yes ☐ No

Name your own wireless LAN. The name will be shown on wireless LAN tag. It will be shown as "Ruckus-Wireless 1" without changing.

It is highly recommended setting password protection for wireless LAN. So only authorized users can join. Password can only contain between 8 and 64 characters and no spaces are allowed.

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6. Kreirajte administrativne korisničke podatke za pristup kontroleru



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Admin Username: admin

\* Password: .....


Confirm Password: .....

Password Recovery: ☐

This username and the following password will permit admin access to web interface after the set up is done. The password can only contain between 4 and 32 characters and cannot have " " or "<"; and no spaces are allowed. Enter the above password again.

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7. Provjerite postavke i završite inicijalnu konfiguraciju kliknite na **Finish**




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Review the information below and click Finish to configure

System Name	SRCE
Country Code	Croatia
Internal Gateway	Disabled
IP Mode	Static (Manual)
IP setting	10.10.10.100
Wireless LAN	Ruckus-Wireless 1
Admin Username	admin
Admin Password	***** <input type="checkbox"/> show password
Password Recovery	Disabled
Mesh	Disabled
System Time	System time will be automatically set. (Your current PC time is 06/05/2020, 12:21:49)

Back Finish

8. Nakon ponovnog dizanja sustava, ulogirajte se na kontroler te kliknite na karticu **Admin & Services**



System Name: SRCE Up Time: 20h 27m admin Help Log Out

Internet Connected

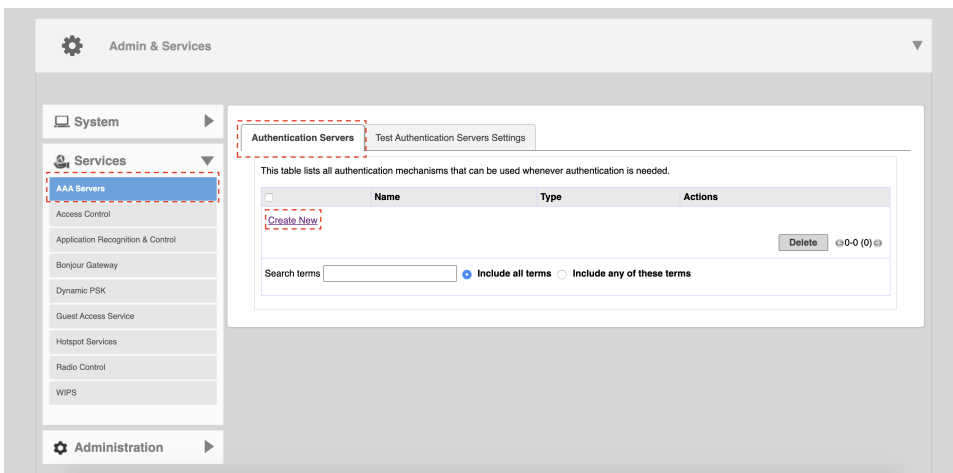
WiFi Networks Traffic: 0.00 MB Total 1 Working 1 Disabled 0

Clients Clients Total 0 Connected 0 Disconnected 0

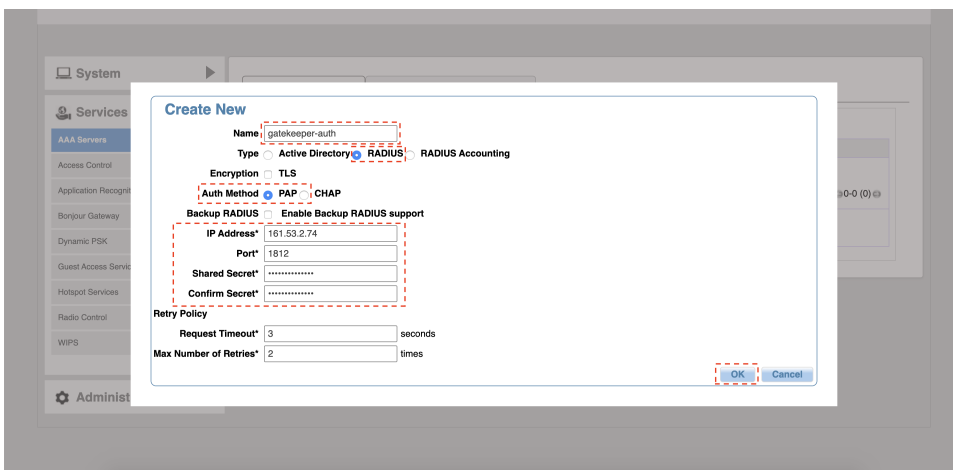
Access Points Total 1 Working 1 Disconnected 0

Admin & Services

9. Kreirajte nove RADIUS poslužitelje pod **Admin & Services > AAA > Authentication Servers > Create New**



#### 10. Unesite postavke za novi autentikacijski poslužitelj



Unesite ime poslužitelja pod **Name**

Odaberite tip poslužitelja kao **RADIUS** pod **Type**

Odaberite autentikacijsku metodu kao **PAP** pod **Auth Method**

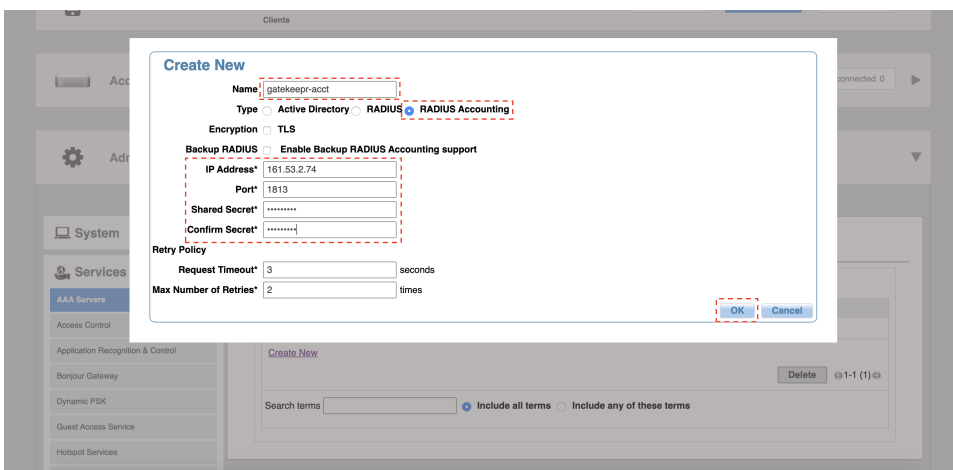
Unesite IP adresu poslužitelja pod **IP Address**

Unesite **Port**

Unesite tajnu šifru između RADIUS poslužitelja i RADIUS klijenta pod **Shared Secret**

Završite konfiguraciju autentikacijskog poslužitelja klikom na **OK**

#### 11. Unesite postavke za novi accounting poslužitelj



Unesite ime poslužitelja pod **Name**

Odaberite tip poslužitelja kao **RADIUS Accounting** pod **Type**

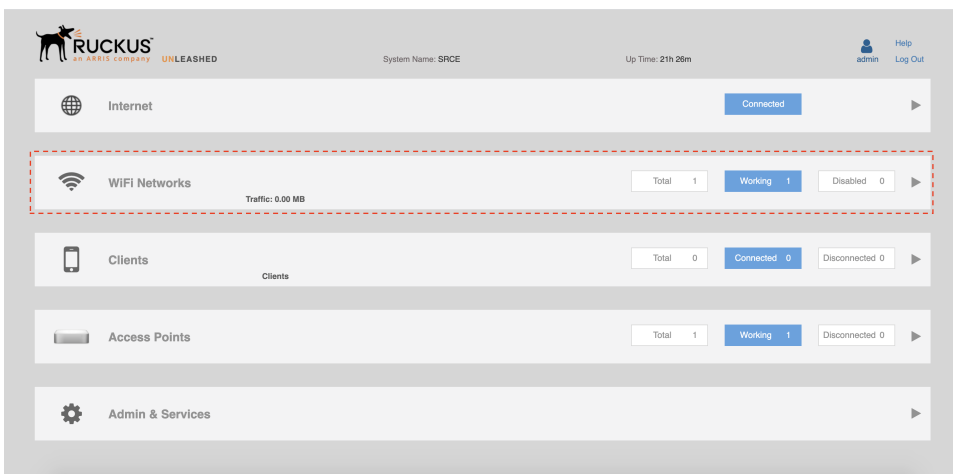
Unesite IP adresu poslužitelja pod **IP Address**

Unesite **Port**

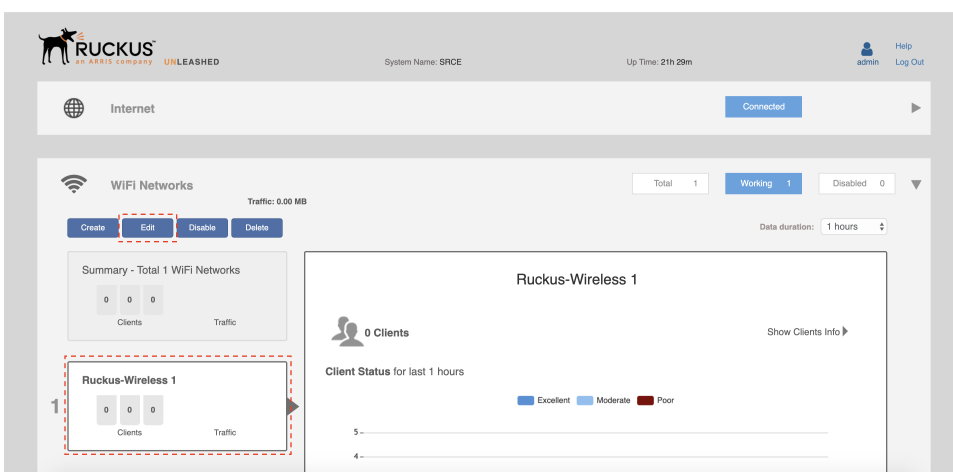
Unesite tajnu šifru između RADIUS poslužitelja i RADIUS klijenta pod **Shared Secret**

Završite konfiguraciju accounting poslužitelja klikom na **OK**

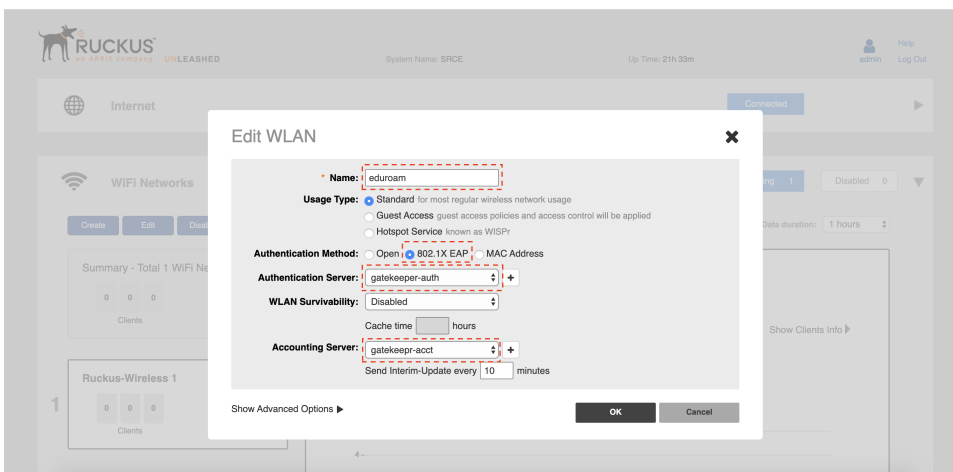
12. Proširite karticu **WiFi Networks** klikom na nju



13. Odaberite ranije kreiran SSID te kliknite na **Edit**



14. Kreirajte eduroam SSID



Unesite ime **eduroam** pod **Name**

Odaberite autentikacijsku metodu kao **802.1X EAP** pod **Authentication Method**

Odaberite ranije konfiguriran autentikacijski poslužitelj pod **Authentication Server**

Odaberite ranije konfiguriran accounting poslužitelj pod **Accounting Server**

15. Kliknite na **Show Advanced Options**

16. Odaberite karticu **WLAN Priority** i unesite VLAN ID od eduroam mreže pod **Access VLAN**

WLAN Survivability: Disabled  
Cache time: hours  
Accounting Server: gatekeeper-acct  
Send Interim-Update every 10 minutes

Hide advanced options ▼

Zero-IT & DPSK | **WLAN Priority** | Access Control | Radio Control | Others

Priority: ☒ High ☐ Low  
Hide SSID: ☐ Hide SSID in Beacon Broadcasting (Closed System)  
**Access VLAN:** 411 ☐ Enable Dynamic VLAN  
Max Clients: Allow up to 100 clients per AP radio  
Service Schedule: ☒ Always on ☐ Always off ☐ Specific

OK Cancel

17. Odaberite karticu **Others** te uključite **Wireless Client Isolation**

WLAN Survivability: Disabled  
Cache time: hours  
Accounting Server: gatekeeper-acct  
Send Interim-Update every 10 minutes

Hide advanced options ▼

Zero-IT & DPSK | WLAN Priority | Access Control | Radio Control | **Others**

Force DHCP: ☐ Enable Force DHCP, disconnect client if client does not obtain valid IP in 10 seconds.  
Inactivity Timeout: Terminate idle user session after 1 minute(s)  
**Wireless Client Isolation:** ☒ Isolate wireless client traffic from other clients on the same AP.  
☒ Isolate wireless client traffic from all hosts on the same VLAN/subnet  
No WhiteList  
(Requires whitelist for gateway and other allowed hosts.)  
DTIM Interval: 1 (1-255) Defines the frequency of beacons that will include a DTIM  
Directed MC/BC Threshold: 1 (0-128) Defines the client count at which an AP will stop converting group addressed data traffic to unicast

OK Cancel

Za završetak kliknite **OK**

18. Spojite se na eduroam mrežu i provjerite da li je spajanje uspješno klikom na karticu **Clients > Wireless Clients**

Internet Connected

WIFI Networks Traffic: 0.00 MB Total 1 Working 1 Disabled 0

Clients Total 1 Connected 1 Disconnected 0

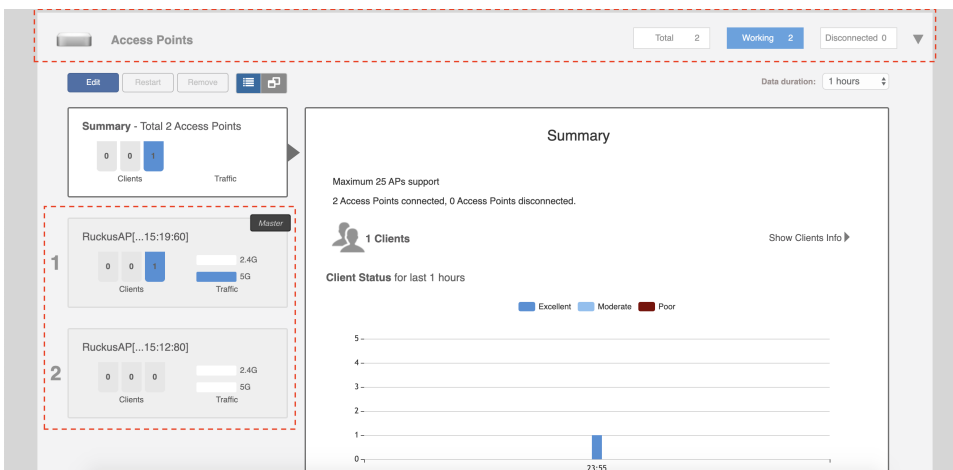
1 clients connected, 0 clients disconnected.

Wired Clients 0 wired clients connected

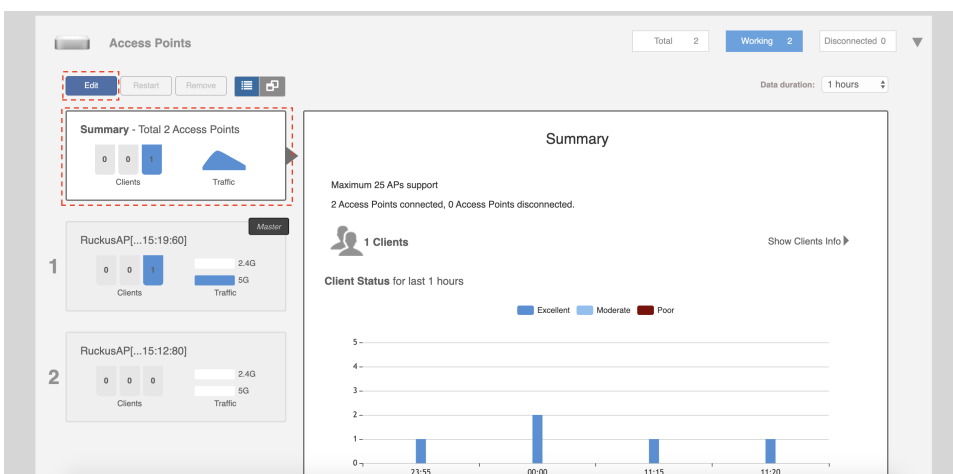
Wireless Clients 1 wireless clients connected

★	Mac Address	IP Address	OS	Name	User	AP Name	WLAN	Signal
	b0:6f:e0:d1:5c:44	10.111.134.246	N/A		anonymous@sroe	RuckusAP	eduroam	Excellent

19. Spojite ostale AP-ove te nakon nekoliko minuta provjerite da li su povezani u klaser putem kartice **Access Points**



20. Editirajte postavke AP Grupe klikom na **Access Points > Summary > Edit**



21. Podesite osnovne postavke AP grupe

The 'Edit AP Group' dialog box is shown. The 'Name' field is 'System Default'. The 'Radio B/G/N(2.4G)' tab is selected. The 'Radio B/G/N(2.4G)' section is highlighted with a red dashed box. The 'Channelization' dropdown is set to '20'. Other settings like 'Channel', 'TX Power', '11n only Mode', 'Call Admission Control', 'WLAN Service', and 'Protection Mode' are also visible.

Odaberite isključivo kanale 1, 6, 11 na kartici **Radio B/G/N (2.4G) > Radio B/G/N (2.4G)**

Odaberite širinu kanala 20 na kartici **Radio B/G/N (2.4G) > Radio B/G/N (2.4G)**

Podesite ostale parametre prema dizajnu bežične mreže.

Završite sa klikom na tipku **Finish**

22. Podesite jedinstvenu virtualnu IP adresu za pristup klasteru u slučaju promjene ispada ili promjene master AP-a

**Admin & Services**

**System**

- System Info
- IP Settings**
- System Time
- Country Code
- Roles
- Users
- Mesh

**Services**

**Administration**

**IP Settings** | **Management Interface** | DHCP Client List | Reserve DHCP Client IPs

**Management Interface**

☒ **Enable IPv4 Management Interface**

Please set IP address in the same subnet with device IP and it should differ from the devices in the subnet.

\* **IP Address** 10.10.10.160

\* **Netmask** 255.255.255.0

☐ Use for RADIUS services

☒ Use for SNMP services

**Apply**

Prebacite se na karticu **Admin & Services > IP Settings > Management Interface**

Odaberite opciju **Enable IPv4 Management Interface**

Unesite virtualnu IP adresu koja ne pripada niti jednom uređaju u management mreži

Završite klikom na **Apply**

23. Podesite ostale postavke sustava prema bežičnom dizajnu i vlastitim potrebama