

## Cubietruck na eduroam mreži



Predstavljajući funkcionalnosti Cubietrucka u prethodnom <u>članku</u> [1] na jednoj ilustraciji smo prikazali Cubietruck u dometu bežične mreže *eduroam* u Android okruženju. Pošto smo Cubietruck "debianizirali", možda imamo potrebu koristiti ga na mjestu gdje nema lokalne/žične mreže. Evo uputa kako to napraviti.

Za početak preko naredbenog retka provjerimo dostupnost paketa *wireless-tools* koji nam je potreban za daljnji rad.

# apt-get install wireless-tools

Ukoliko je instaliran skenirajmo naše mreže.

```
# iwlist scan
             Scan completed :
...wlan0
Cell 01 - Address: 1C:AF:F7:6B:28:CB
ESSID: "eduroam"
Mode:Managed
Frequency: 2.412 GHz (Channel 1)
Quality:4/5 Signal level:-66 dBm Noise level:-92 dBm
IE: IEEE 802.11i/WPA2 Version 1
Group Cipher : CCMP
Pairwise Ciphers (1) : CCMP
Authentication Suites (1) : 802.1x
Preauthentication Supported
Encryption key:on
Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s
12 Mb/s; 24 Mb/s; 36 Mb/s; 9 Mb/s; 18 Mb/s
 48 Mb/s; 54 Mb/s
Cell 02 - Address: BC:F6:85:01:C5:4D
ESSID: "eduroam"
Mode:Managed
Frequency: 2.437 GHz (Channel 6)
Quality:5/5 Signal level:-47 dBm Noise level:-92 dBm
 IE: IEEE 802.11i/WPA2 Version 1
Group Cipher : CCMP
Pairwise Ciphers (1) : CCMP
Authentication Suites (1) : 802.1x
Preauthentication Supported
Encryption key:on
Bit Rates:1 Mb/s; 2 Mb/s; 5.5 Mb/s; 11 Mb/s; 6 Mb/s
12 Mb/s; 24 Mb/s; 36 Mb/s; 9 Mb/s; 18 Mb/s
 48 Mb/s; 54 Mb/s
. . . .
```

Skeniranjem otkrivamo prisutnost eduroam mreže.



Da bi pristupili eduroam mreži trebamo imati podršku za WPA2 kao što vidimo iz skeniranja. Podršku instaliramo na jednostavan način.

# apt-get install wpasupplicant
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
 wpagui libengine-pkcsll-openssl...

Sugerira nam se *wpagui* paket koji može biti koristan ako koristimo grafičko sučelje.

# apt-get install wpagui

Sa <u>http://installer.eduroam.hr</u> [2]/ preuzmemo Linux (različite distribucije) instalacijsku arhivu te je raspakiramo.

# gunzip -c eduroam\_Linux\_domena.hr\_installer.tar.gz | tar xvf -

Napravimo u /etc direktorij eduroam

# cd /etc
# mkdir eduroam

Vratimo se u direktorij gdje smo raspakirali installer.

```
# cd /home/drum/eduroam_Linux_domena.hr_installer/
root@cubie:/home/drum/eduroam_Linux_domena.hr_installer
# ls
eduroam_config eduroam_domena.hr_CA.pem INSTALL README wicd_example.conf wpa_s
upplicant_example.conf
```

Skriptu *eduroam\_config* smo već prije pokretali, koristimo dio izgeneriranih redaka eduroam konfiguracije kasnije u podešavanju *wpa\_supplicant.conf*. Sada nas zanima put do certifikata *eduroam\_domena.hr\_CA.pem*. Kopiramo ga u za to predviđeni direktorij.

# cp eduroam\_simet.hr\_CA.pem /etc/eduroam

Zatim u /etc napravimo konfiguracijsku datoteku i odredimo prava pristupa.

```
/etc# nano wpa_supplicant.conf
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1
network={
   ssid="eduroam"
   proto=RSN
   key_mgmt=WPA-EAP
   pairwise=CCMP
   auth_alg=OPEN
   eap=TTLS
   identity="ppero@domena.hr"
```



password="perinpasswd" ca\_cert="/etc/eduroam/eduroam\_domena.hr\_CA.pem" subject\_match="freeradius.domena.hr" phase2="auth=PAP" } # chmod 600 /etc/wpa\_supplicant.conf

Za pristup mrežnom uređaju dodajemo našeg trenutnog korisnika u grupu *netdev* kojeg smo naveli u *wpa\_supplicant.conf*.

```
# adduser drum netdev
Adding user 'drum' to group 'netdev' ...
Adding user drum to group netdev
Done.
```

Nakon toga na dobro znanoj lokaciji /etc/network/interfaces uredimo sadržaj na slijedeći način:

```
# interfaces(5) file used by ifup(8) and ifdown(8)
auto lo
iface lo inet loopback
auto eth0
allow-hotplug eth0
iface eth0 inet dhcp
#
        hwaddress ether 00:01:43:ee:63:54 # if you want to set MAC manually
#
        pre-
up /sbin/ifconfig eth0 mtu 3838 # setting MTU for DHCP, static just: mtu 3838
#auto wlan0
#allow-hotplug wlan0
#iface wlan0 inet dhcp
    wpa-ssid SSID
#
#
    # to generate proper encrypted key: wpa_passphrase yourSSID yourpassword
allow-hotplug wlan0
iface wlan0 inet manual
wpa-roam /etc/wpa_supplicant.conf
iface wlan0 inet dhcp
```

U našem primjeru smo orginalne postavke za *wlan0* zakomentirali, a naše dodali na kraj konfiguracijske datoteke.

Ostaje na još ponovno pokretanje Cubietrucka.

#reboot

Poslije podizanja sustava kroz *wpa\_GUI* provjerimo da li smo uspješno konfigurirali bežičnu mrežu *eduroam*.



# Cubietruck na eduroam mreži

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### **Cubietruck na eduroam mreži** Published on sys.portal (https://sysportal.carnet.hr.)

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#### **Cubietruck na eduroam mreži** Published on sys.portal (https://sysportal.carnet.hr.)

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	0: eduroam			PSK		
				EAP method	TTLS	\$
				Identity	@shr	
			<b>.</b> .	Password	*****	
			211	CA certificate	/etc/eduroam/eduroamhr_CA.pem	
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Dobili smo IP adresu 192.168.88.111. Ukoliko se kroz *wpa\_gui* napravi "*Disconnect*" pa ponovni "*Connect*" za dobivanje IP adrese se mora u terminalu pokrenuti naredba.

#dhclient -v wlan0

čet, 2014-11-13 13:35 - Goran Šljivić**Kuharice:** <u>Linux</u> [3] Kategorije: <u>Servisi</u> [4] Vote: 0

No votes yet

Source URL: https://sysportal.carnet.hr./node/1454

#### Links

[1] https://sysportal.carnet.hr./node/1417

[2] http://installer.eduroam.hr

[3] https://sysportal.carnet.hr./taxonomy/term/17



[4] https://sysportal.carnet.hr./taxonomy/term/28