

GRIFFITH COLLEGE

WHAT IS THE SECRET

UniFi wireless campus környezetben

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Griffith College Dublin



UniFi wireless campus környezetben

- PC alapú kontroller
- A hardver
- Szolgáltatások
- Biztonság
- Esettanulmányok

PC alapú kontrolller

- Költséghatékony
- Virtualizálható
 - HA cluster
 - Cloud
- Mindíg van raktáron



PC alapú kontrollerek

- Hardver igények
 - (lehetőleg) 64 bit
 - 2GB RAM
 - 20+GB HDD
- OS igények
 - Windows
 - Linux (deb és rpm)
 - OSX
- Telepítés és frissítés
 - Windows, OSX: backup, reinstall, reload
 - Linux: apt-get, rpm



Hardver

- Minden modell legalább b/g/n
 - UAP b/g/n 2.4GHz
 - UAP-Pro a/b/g/n 2.4/5GHz
 - UAP-AC 2.4/5GHz
 - Outdoor a/b/g/n/ac 2.4/5GHz
- Atheros, Linux



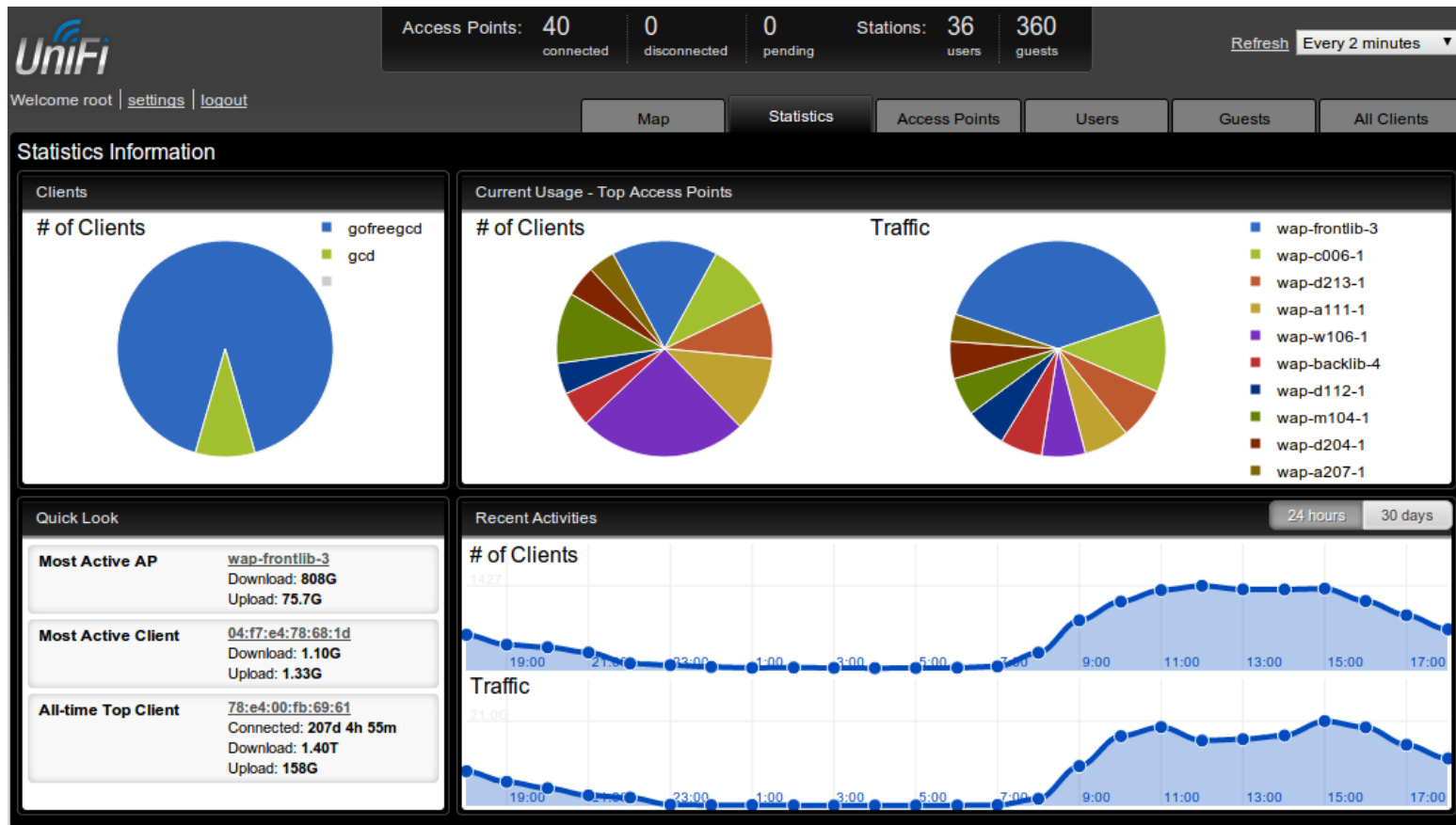
Hardver

- POE
- Nem szabvány passzív 24V
 - UAP
 - UAP-LR
 - UAP-Outdoor
- 802.3af/at
 - UAP-Pro
 - UAP-AC
 - UAP-Outdoor-AC



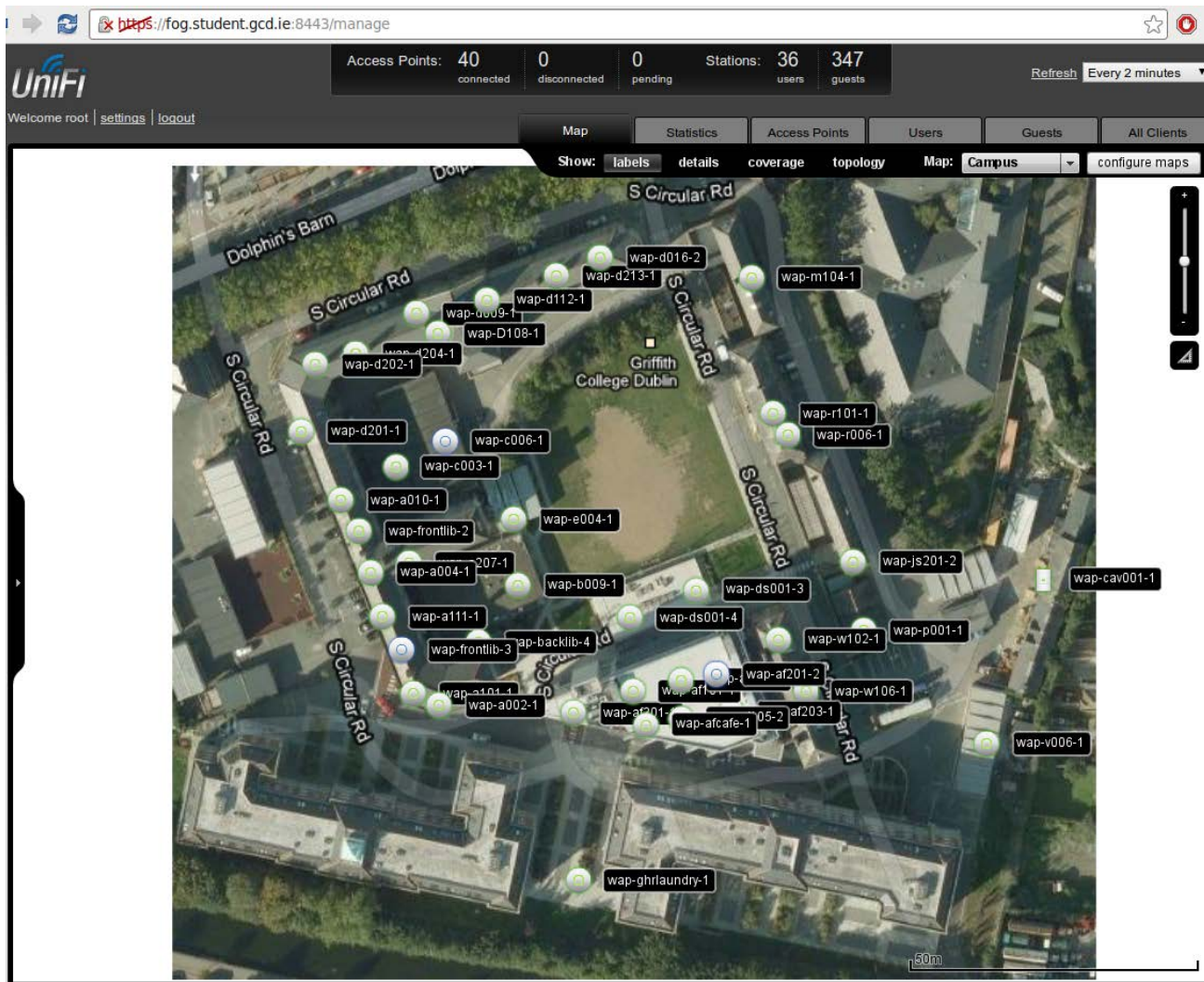
Szolgáltatások

- Statisztikák



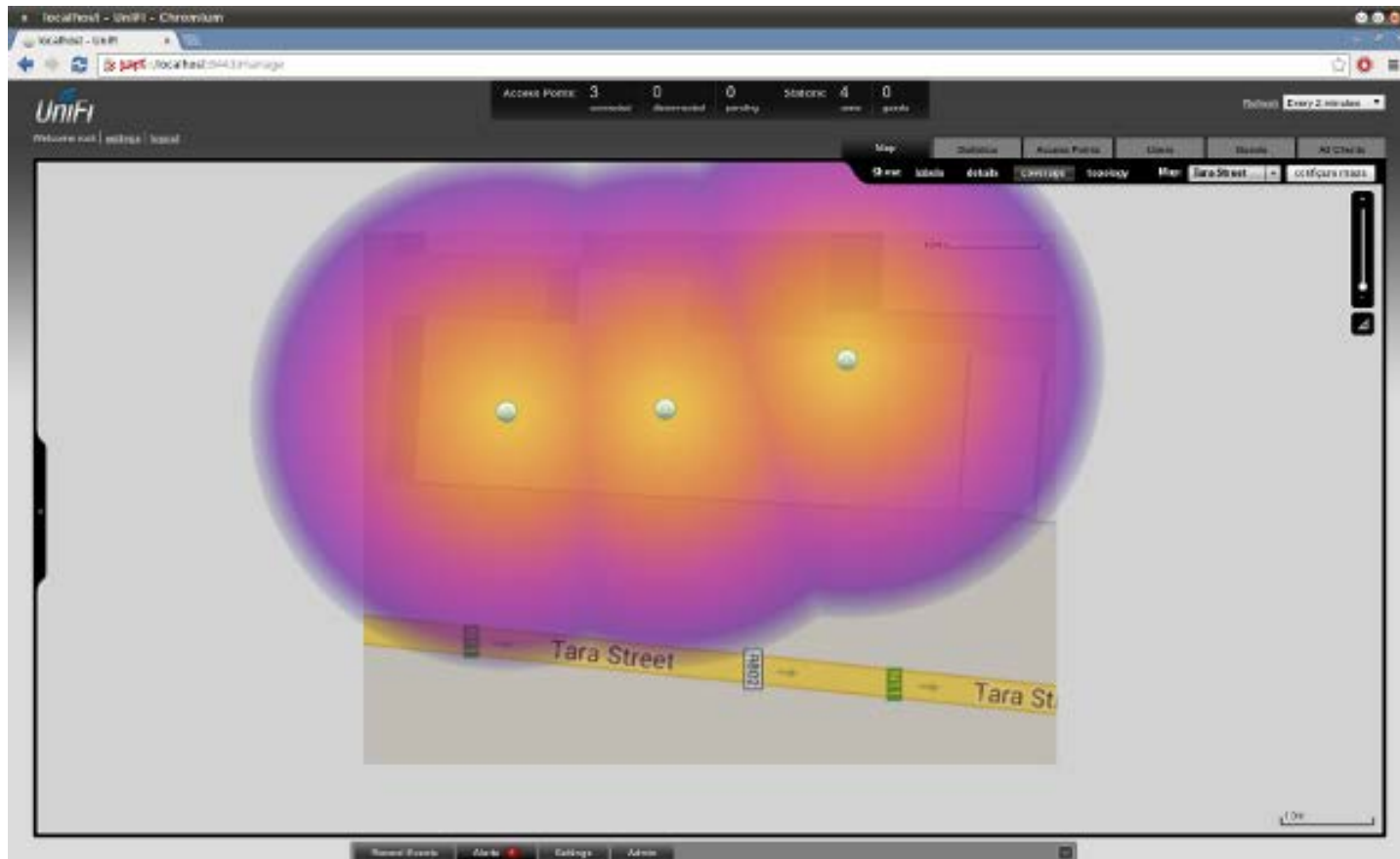
Szolgáltatások

- Térkép, lefedettség



Szolgáltatások

- Térkép, lefedettség



Szolgáltatások

- Layer3 discovery
- HTTP/HTTPS (8080, 8443)
- Wireless uplink (mesh)



Szolgáltatások

- Layer3 discovery
- Wireless uplink (mesh)

Managed Access Points

Search

Name/MAC Address	IP Address	Status	Num Clients	Actions
24:a4:3c:4c:1c:f6		Pending Approval (wireless)		Adopt
24:a4:3c:40:20:8e		Pending Approval (wireless)		Adopt
24:a4:3c:4c:1b:cf		Pending Approval (wireless)		Adopt
24:a4:3c:4c:1c:cd		Pending Approval (wireless)		Adopt
WAP-AS-TOP-FLOOR	192.168.1.58	Connected	4	Restart
WAP-AS-SECOND-FLOOR-CANT	192.168.1.109	Connected	1	Restart
WAP-CC-LR1	192.168.16.43	Connected	14	Restart
WAP-AS-FIRST-FLOOR-DIR	192.168.1.69	Connected	3	Restart
WAP-CC-LR2	192.168.16.72	Connected	7	Restart
WAP-AS-GROUND-FLOOR-MAIN-HALL	192.168.1.92	Connected	5	Restart
WAP-CC-Library	192.168.16.29	Connected	2	Restart

Biztonság

- WPA Enterprise
- Captive portal
- Blacklist
- VLAN támogatás
- Restricted subnet

Biztonság

- Restricted subnet

```
BZ.v2.4.6# ebttables -t nat -L
```

```
Bridge table: nat
```

```
Bridge chain: GUESTIN, entries: 12, policy: DROP
```

```
-p IPv4 --ip-dst 172.16.0.0/22 -j ACCEPT
```

```
-p IPv4 --pkttype-type broadcast --ip-proto udp --ip-sport 68 --ip-dport 67 -j ACCEPT
```

```
-p IPv6 -j DROP
```

```
-p IPv4 --ip-proto udp --ip-dport 5353 -j DROP
```

```
-p IPv4 --ip-proto udp --ip-dport 53 -j ACCEPT
```

```
-p ARP -j ACCEPT
```

```
-p IPv4 --ip-proto tcp --ip-dport 443 -j CAPTIVE_PORTAL
```

```
-p IPv4 --ip-dst 224.0.0.0/4 -j DROP
```

```
-p IPv4 --ip-dst 192.168.50.0/24 -j DROP
```

```
-p IPv4 --ip-dst 172.16.0.0/16 -j DROP
```

```
-p IPv4 --ip-dst 172.18.0.0/16 -j DROP
```

```
-j ACCEPT
```



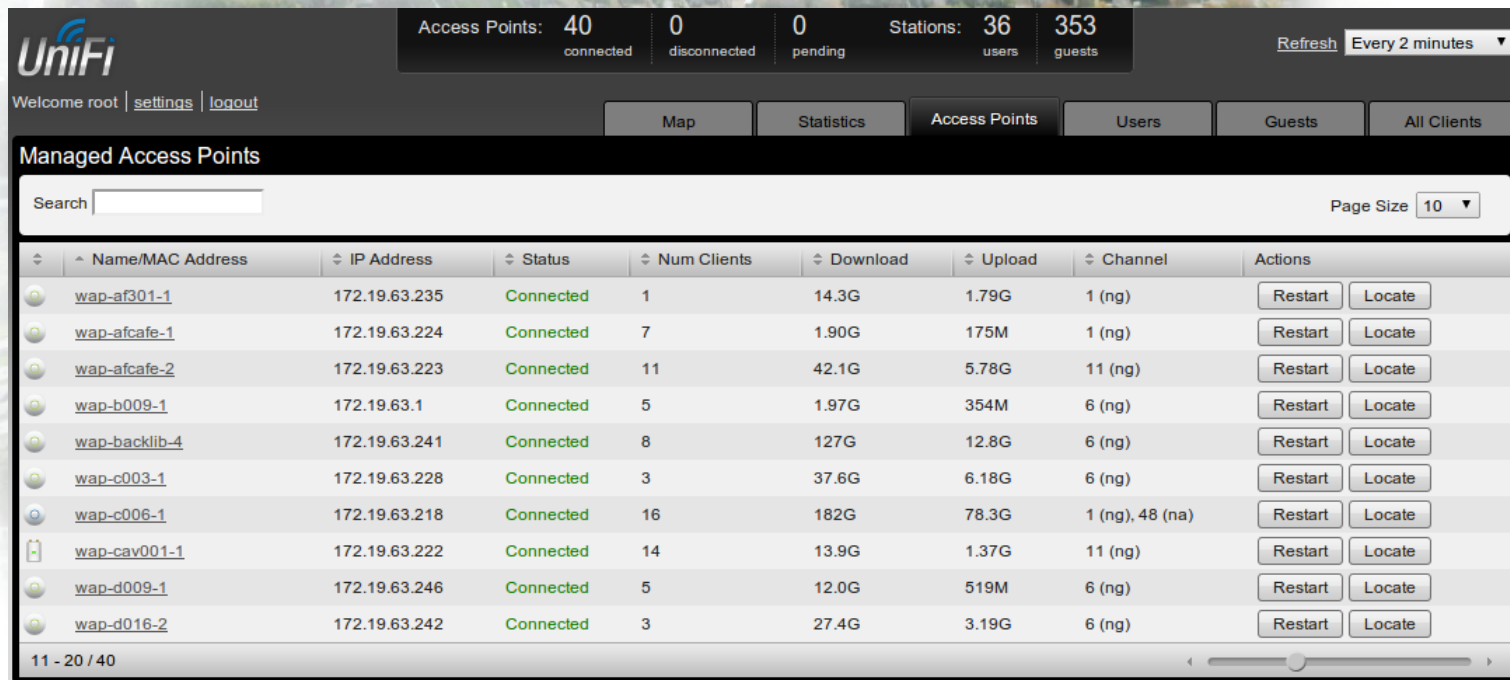
Griffith College Dublin

- South Circular Road: 7 hektár
- 40 AP, napi 1500 felhasználó



Griffith College Dublin

- South Circular Road: 7 hektár
- 40 AP, napi 1500 felhasználó

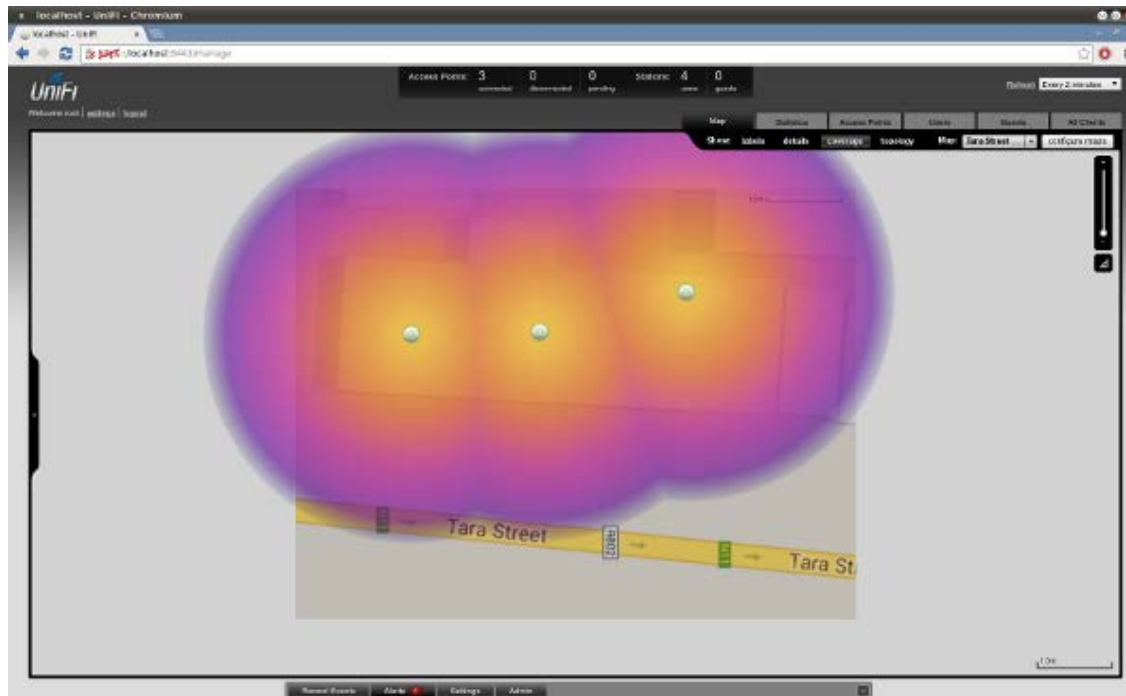


The screenshot displays the UniFi network management interface. At the top, it shows the UniFi logo and a summary of network status: 40 connected Access Points, 0 disconnected, and 0 pending. It also indicates 36 Stations with 353 users and guests. A 'Refresh' button and a dropdown menu set to 'Every 2 minutes' are visible. Below the summary, there are navigation tabs for 'Map', 'Statistics', 'Access Points', 'Users', 'Guests', and 'All Clients'. The 'Access Points' tab is selected, showing a table of Managed Access Points. The table has columns for Name/MAC Address, IP Address, Status, Num Clients, Download, Upload, Channel, and Actions. The table lists 11 access points, all with a 'Connected' status. The background of the interface shows a blurred aerial view of a building complex.

Name/MAC Address	IP Address	Status	Num Clients	Download	Upload	Channel	Actions
wap-af301-1	172.19.63.235	Connected	1	14.3G	1.79G	1 (ng)	Restart Locate
wap-afcafe-1	172.19.63.224	Connected	7	1.90G	175M	1 (ng)	Restart Locate
wap-afcafe-2	172.19.63.223	Connected	11	42.1G	5.78G	11 (ng)	Restart Locate
wap-b009-1	172.19.63.1	Connected	5	1.97G	354M	6 (ng)	Restart Locate
wap-backlib-4	172.19.63.241	Connected	8	127G	12.8G	6 (ng)	Restart Locate
wap-c003-1	172.19.63.228	Connected	3	37.6G	6.18G	6 (ng)	Restart Locate
wap-c006-1	172.19.63.218	Connected	16	182G	78.3G	1 (ng), 48 (na)	Restart Locate
wap-cav001-1	172.19.63.222	Connected	14	13.9G	1.37G	11 (ng)	Restart Locate
wap-d009-1	172.19.63.246	Connected	5	12.0G	519M	6 (ng)	Restart Locate
wap-d016-2	172.19.63.242	Connected	3	27.4G	3.19G	6 (ng)	Restart Locate

Griffith College - Tara Street

- Tara Street: 4 terem, 80+ notebook, 1 hetes határidő
- HP dc5100 (32bit, 2GB RAM), 3 UAP



Saint Nicholas Montessori College Ireland



- 2 épület, 7 AP, VPN kapcsolat
- Dell SC440 (PXE, DNS szerver)

Managed Access Points

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- PC alapú kontroller
 - Gyorsan beszerezhető, telepíthető
 - Virtualizálható (cloud)
- Hardver
 - Tud mindent, amit a nagyok
 - Költséghatékony
- Statisztikák, térkép, lefedettség
- WPA Enterprise, restricted subnet



UniFi wireless campus környezetben

Köszönöm a figyelmet!





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