



Unlimited Indoor/Outdoor AP Scalability in a Unified Management System

Breakthrough Capacity up to 750 Mbps

Intuitive UniFi Controller Software

Hotspot Management – Customization and Built-In Billing Options



UniFi AP solution???????WiFi network????????????, ?????(Indoor)???(Outdoor)???. ....

???????

- Wiki: [http://wiki.ubnt.com/Main\\_Page](http://wiki.ubnt.com/Main_Page)
- Knowledge Base: <https://community.ubnt.com/t5/tkb/communitypage>
  - ? [UniFi Controller Installation](#)
  - ? [UniFi - Install controller software on CentOS](#)

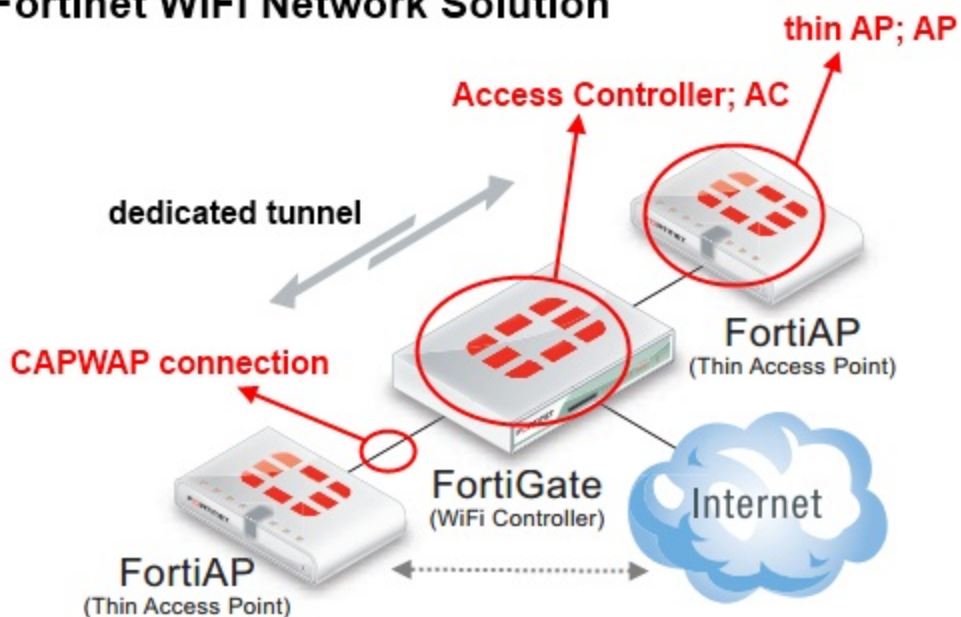
?????

- [AWS-based?????\(Cloud-based controller\)](#)
- [DSCP/COS????\(QoS\)??](#)
- [VLAN??BYOD????](#)
- [Wireless Uplink](#)
- [??\(inform\)AC](#)

**????**

UniFi AP system?????wireless network????????????, ?????(indoor)???(outdoor)???. ???AP(wireless router)?  
 ???, ?????thin AP???, ?????AC(Access Controller)????????(Central Management), AC????????thin AP???, ??  
 ?AP+AC????????, AC????????(????), ?????client?????. ???Fortinet?AC+AP solution, ?????CAPWAP??tunnel:

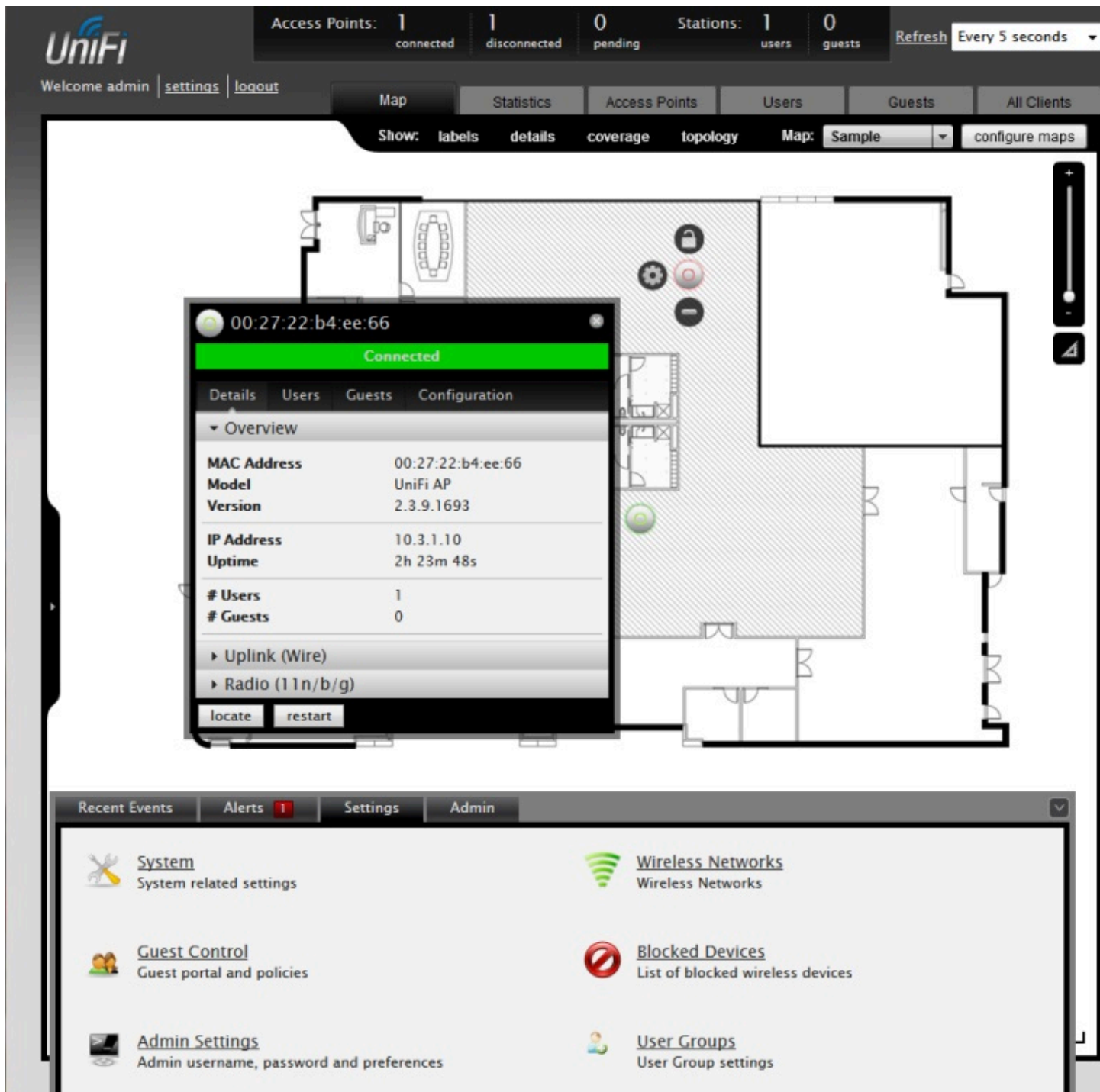
## Fortinet WiFi Network Solution



Fortinet???AC+AP solution, ?AC????????????, ????client?????, AP?AC?????CAPWAP(udp, 5246;5247)??tunnel??, ? UniFi AP system??????, AC??????client?????, ?AP?AC??????tunnel, ??????????????. UniFi AP system?????????:

1. thin AP??????AC???????
2. AP?AC??????tunnel??, AC?????client?????????
3. thin AP??????wireless bridge, L3??????, ??IP addressing?????????NAT??.
4. ??????traffic-shaping??, ?????WME(WMM)??, ??QoS(??????????DSCP).
5. ??Guest Control, ??????; ??User/Group Management.
6. ??Wireless Uplink.
7. ??????????????(Detailed Analytics).
8. ??????(Roaming; Zero Handoff Roaming).
9. ??????PoE?(?????).
10. ??????, AC????????????, ??????????????

UniFi AP system??????AC??????, ?????????????????, ???????x86 PC?????. AC?????Web-based manager???AP?????.

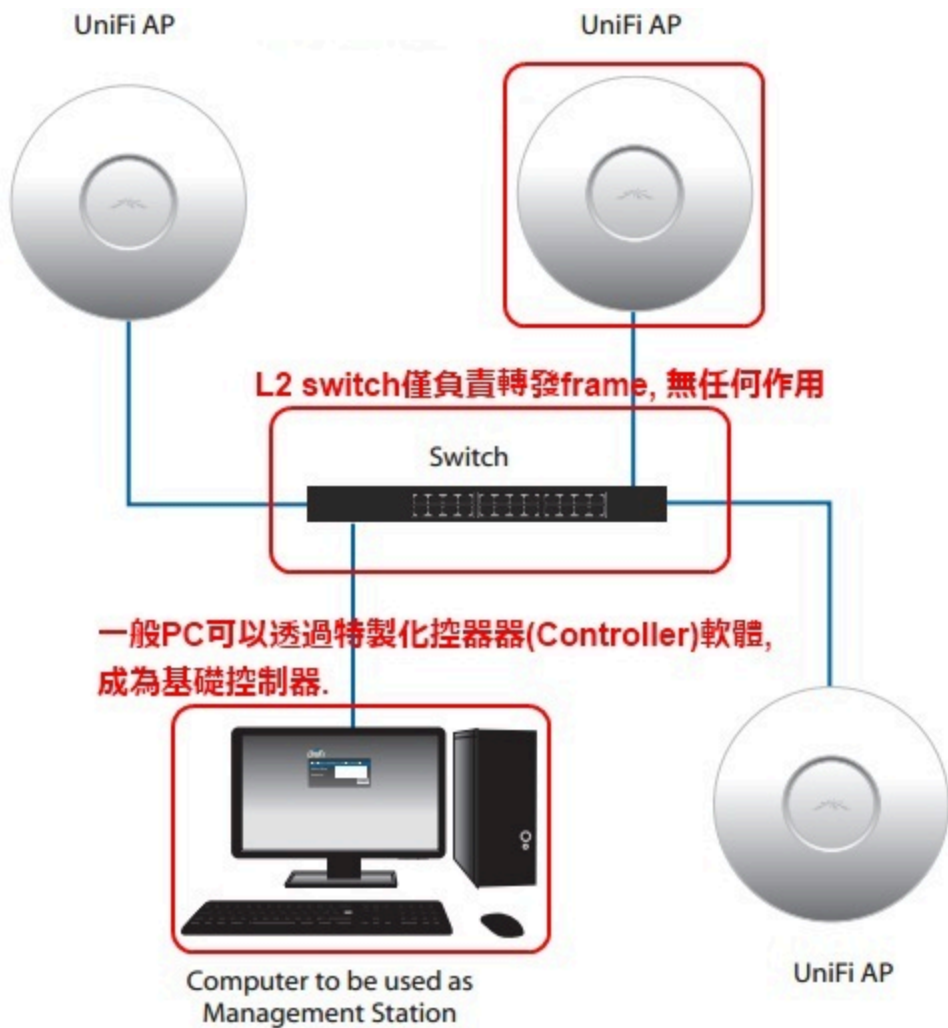


????thin AP?????, ???AC?????????, ?????????????thin AP?????.

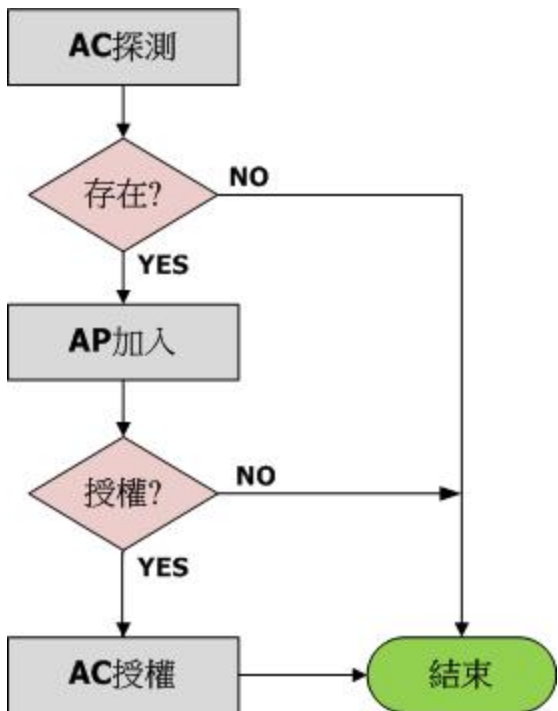
### thin AP Discovery

thin AP?????, ?????????AC?????. ??, thin AP???AC?????. ?UniFi AP system??AC?discovery?????L2?L3???. re-writting...

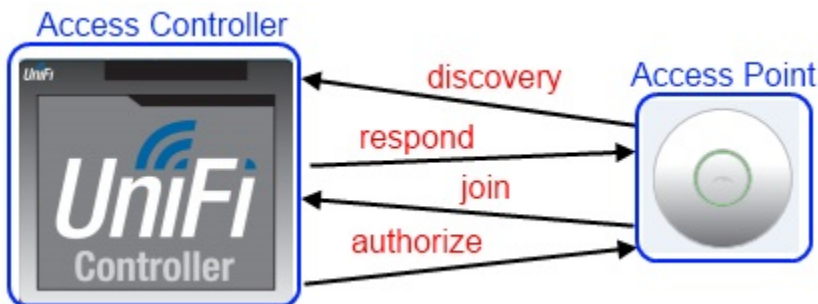
3. ?????, ?????????.
4. ?????AC??, AC????????, ?????L3????????, ?tunnel??.
5. ?????????????, ?????????????, ex: RouterOS.
6. ?????????L3??, UniFi AP solution???client?????.



UniFi AP solution AC+AP, , AP:  
AP, discovery. , .  
, , :



?????????AP????AC??, ???AC??, ?????! ??AC?????AP, ???AP?AC?????. ????????????, AP????AC?????L3?????, ?????L2 network, ???????????????.



????AC?????, ?????L3????, ???????????, ??AC?????, ?????inform AC????AP????AC?????, ???domain name????IP(domain name????????).

?UniFi AP solution????????????????????, AP?AC????????, client????????????????????, L2????????????????L3????.



UniFi AP solution????????????????(Guest Control), ?????????, ?????????QoS????(Traffic Shaping), ?  
????????????BYOD?, ??????????. ??SSID????????????, ???VLAN????????????, ??????. ???AP??????  
??, ?????????????(Controller)??????????.



Unifi AP solution????????, ?????????, ??????????:  
[http://dl.ubnt.com/datasheets/unifi/...\\_Datasheet.pdf](http://dl.ubnt.com/datasheets/unifi/..._Datasheet.pdf)

?????

??????, ??????????. ???????????.



<http://www.ubnt.com/unifi>

FAQ

[http://wiki.ubnt.com/UniFi\\_FAQ](http://wiki.ubnt.com/UniFi_FAQ)

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<http://wiki.openwrt.org/toh/<wbr/>ubiquiti/unifi>

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[http://www.ubnt.com/downloads/<wbr/>guides/UniFi/UniFi\\_AP\\_AP-LR<wbr/>User\\_Guide.pdf](http://www.ubnt.com/downloads/<wbr/>guides/UniFi/UniFi_AP_AP-LR<wbr/>User_Guide.pdf)

?????? <http://forum.ubnt.com/forumdisplay.php?f=48>

?AP ??thin AP ??(GUI) ????? PC ?????wireless controller ,??  
wireless ?????????????licenese ,??????AP?????

UniFi AP???POE APP

??:

thin poe ap  
?SSID ??SSID ??????  
open wlan  
??  
1.???????  
2.???????  
3.?Paypa api ??????????  
4.Portal ???????  
5.???????????

??????????????

????  
client ????  
?????????  
wireless vlan

Wireless uplink=Mesh

??????????????

L3 ??????+pppoe ??

x86 Router OS :

????

RouterOS , ??? , wayos ,m0n0Wall , SmoothWall ,CoyoteLinux , Vyatta

??? <http://www.hi-spider.com/>

???







**UniFi???????????**



\*???? ??????????

??????

- ???????
- ??????????????
- ??????????
- ?????????????? AP



UniFi ?????

????????

“Ubiquiti Networks??”????????

?????HW????????????

??

????????

Wi-fi.org????ID?WFA9602

????????

- ? ????
- ? ??????
- ? ????
- ? ?????/??
- ? ??/????
- ? ?????/??
- ? ????
- ? ??????
- ? ???

??????

\*?????????????????Google???

\*???????????????

\*?????????24??30????????????? ?????

\*?????????SSID????

\*?????????

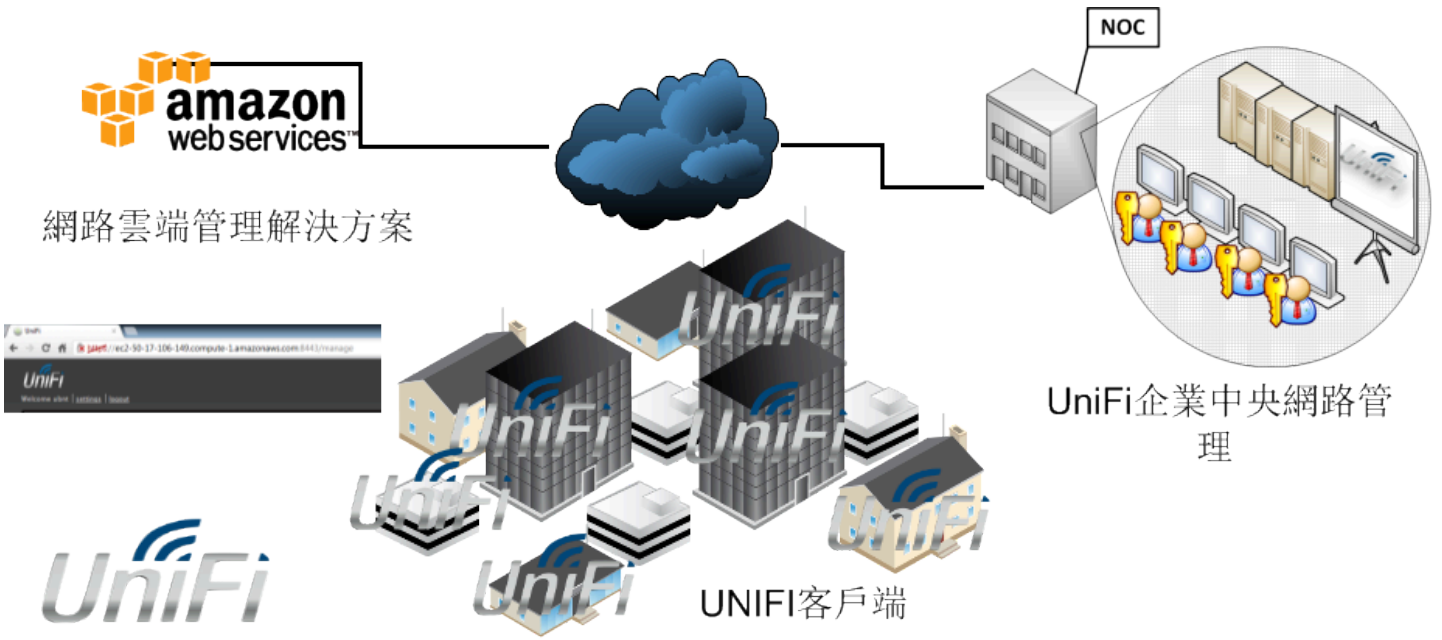
\*???????????????

????????

- ??????????????????



- ????
  - ??????????????????
  - ??????????????????????
  - ???NOC o Cloudd ???
- .....?????????????????

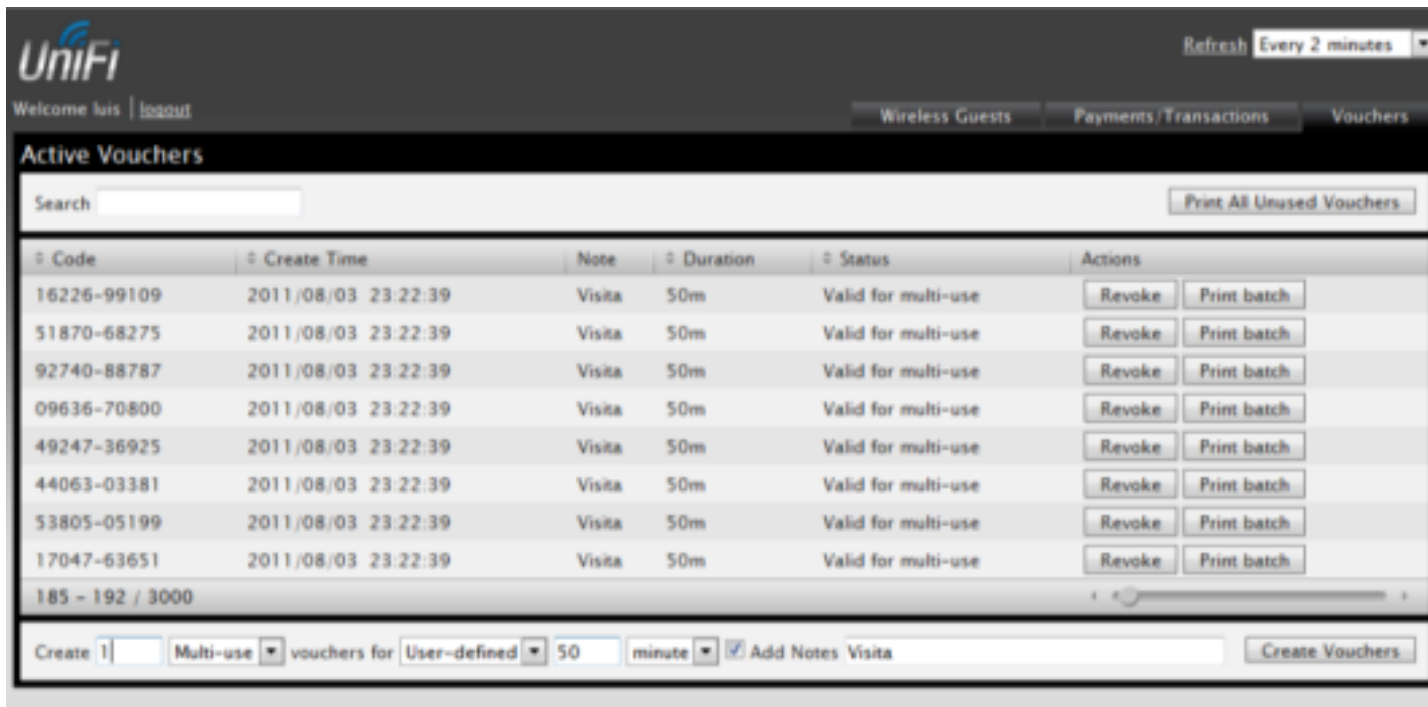


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- ????????????????
- ????????????????
- ??
- ????????????????

?????????

- ??ID?????????????1500?
- ????????????????
- ????????????????????



HOTSPOT ????

- ????????????
- ? ???ID
- ? ??????????
- ????????
- ? ????????

\*?MAC?????????

????

- ???? : WEP/WAP/WAP2(AES/TKIP)/802.1x(Radius)
- ?? MAC
- SSID ??
- ???????(?????)
  - ? ???
  - ? ????????
  - ? ????????
  - ? ????????? ????????????????????
- ?SSID?VLAN??

??



Mesh ?? Link

- ???
- ??????????????????????????????

????

- ID ???????????????SSID
- ???



The screenshot shows the UniFi web interface. At the top, there are statistics: Access Points: 8 connected, 0 disconnected, 1 pending; Stations: 0 users, 0 guests. A 'Refresh' button is set to 'Every 2 minutes'. Below this is a navigation bar with 'Map', 'Statistics', 'Access Points', 'Users', and 'Guests'. The main content area is titled 'Managed Access Points' and contains a search bar and a table of access points.

| Name/MAC Address  | IP Address | Status               | Num Clients | Download | Upload | Channel  | Actions        |
|-------------------|------------|----------------------|-------------|----------|--------|----------|----------------|
| 00:27:22:0a:21:52 | 10.0.0.198 | Managed by Other     |             | 0.00     | 0.00   |          |                |
| Pico165           | 10.0.0.165 | Connected (wireless) | 0           | 0.00     | 0.00   | 6 (ng)   | Restart Locate |
| UAP-Patrick-LR    | 10.0.0.61  | Connected            | 0           | 774K     | 122K   | 6 (ng)   | Restart Locate |
| LMS-1hop          | 10.0.0.64  | Connected (wireless) | 0           | 0.00     | 0.00   | 161 (na) | Restart Locate |

Below the table, there is a 'Settings' menu with 'User Groups' selected. The 'User Group Settings' dialog is open, showing a table of user groups:

| Name     | Bandwidth Limit                        | Actions     |
|----------|--|-------------|
| Basic    | Download: 512 Kbps, Upload: 256 Kbps   | edit        |
| Extended | Download: 1024 Kbps, Upload: 512 Kbps  | edit delete |
| Premier  | Download: 2048 Kbps, Upload: 1024 Kbps | edit delete |

At the bottom of the dialog is a 'Create' button.

???????



## UAP y UAP-LR

- ??? SSID con VLANS
- 100 Clientes por equipo
- Soporta QoS para Voz y Video
- Segmentación y control de trafico de invitados

| Características  | UAP      | UAP-LR   |
|------------------|----------|----------|
| Potencia(TX)     | 20dBm    | 27dBm    |
| Sensibilidad(RX) | -92dBm   | -96dBm   |
| Antenas          | 2        | 2        |
| Ancho de Canal   | 20/40Mhz | 20/40Mhz |
| MIMO             | 2x2      | 2x2      |

Incluye Inyector Poe 24v – 0.5A



Tripack o Pack Simple

300Mb  
ps



### UAP-PRO

- WiFi dual en 2.4Ghz y 5 Ghz simultáneamente.
- Soporte de 2 puertas GE con POE 802.3af
- Segmentación y control de trafico de invitados
- Soporta 802.1Q WMM para Voz y Video
- Seguro para instalación
- 8 SSID, 4 en 2,4Ghz y 4 en 5Ghz

| Características  | UAP-PRO                    |
|------------------|----------------------------|
| Potencia(TX)     | 30dBm 2.4Ghz<br>22dBm 5Ghz |
| Sensibilidad(RX) | -92dBm                     |
| Antenas          | 03 2.4Ghz, 02 5Ghz         |
| Ancho de Canal   | 20/40Mhz                   |
| MIMO             | 2x2 y 3x3                  |



Incluye Inyector Poe 48v – 1A



**Tripack o Pack Simple**



**450Mbps(MIMO  
3x3)**



**300Mbps (MIMO  
2x2)**

## PICOM2HP

- Soporte de 04 SSID con VLANS
- Soporta + de 100 Clientes por equipo
- Soporta QoS para Voz y Video
- Segmentación y control de trafico de invitados

| Características  | PICOM2<br>HP |
|------------------|--------------|
| Potencia(TX)     | 28dBm        |
| Sensibilidad(RX) | -96dBm       |
| Antenas          | 1            |
| Ancho de Canal   | 20Mhz        |
| MIMO             | NO(SISO)     |

**Incluye Inyector Poe 24v – 0.5A**



**150Mb  
ps**

#### UAP-OUTDOOR y UAP-OUTDOOR5

- Soporte de 04 SSID con VLANS
- Soporta + de 100 Clientes por equipo
- Soporta QoS para Voz y Video
- Incluye 2 Puertos Ethernet, con soporte POE.
- Segmentación y control de trafico de invitados

| Características  | UAP OutDoor   | UAP OutDoor5 |
|------------------|---------------|--------------|
| Potencia(TX)     | 27dBm(2.4Ghz) | 27dBm(5Ghz)  |
| Sensibilidad(RX) | -96dBm        | -96dBm       |
| Antenas          | 2             | 2            |
| Ancho de Canal   | 20/40Mhz      | 20/40Mhz     |
| MIMO             | 2x2           | 2x2          |



Incluye Inyector Poe  
24v – 1A. Con lo cual  
soporta Poe  
Passthrough para otro  
dispositivo de poe  
Pasivo

### UAP-OUTDOOR 2.4Ghz

| Modelos  | Frecuencia | Ganancia | Ángulo |
|----------|------------|----------|--------|
| AM-2G-15 | 2.4Ghz     | 15dBi    | 120°   |
| AM-2G-16 | 2.4Ghz     | 16dBi    | 90°    |
| AMO-2G10 | 2.4Ghz     | 10dBi    | 360°   |
| AMO-2G13 | 2.4Ghz     | 13dBi    | 360°   |

### UAP-OUTDOOR5 5Ghz

| Modelos  | Frecuencia | Ganancia | Ángulo |
|----------|------------|----------|--------|
| AM-5G-16 | 5Ghz       | 16dBi    | 120°   |
| AM-5G-17 | 5Ghz       | 17dBi    | 90°    |
| AM-5G-19 | 5Ghz       | 19dBi    | 120°   |
| AM-5G-20 | 5Ghz       | 20dBi    | 90°    |
| AMO-5G10 | 5Ghz       | 10dBi    | 360°   |
| AMO-5G13 | 5Ghz       | 13dBi    | 360°   |



??WiFi????????????????????

- ???
- ??????
- ??
- ????
- ??????

## Accesorios

### INSTANT 802.3af

- ???????????/ UAP?LR/ UAP????PICOM2??????802.3af PoE48V?
- ??802.3af????????????????????100??
- ?????????????????????????18V ESD??????15kV?
- ?????????????????PoE??24V???????

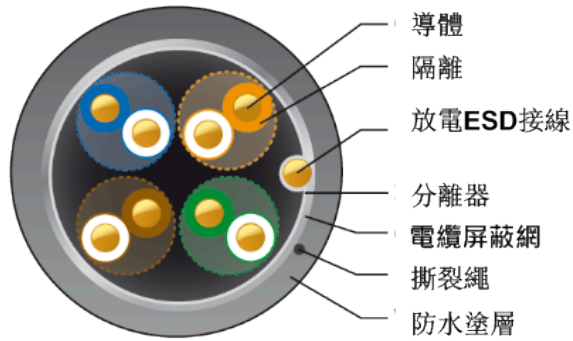


### TOUGH CABLE

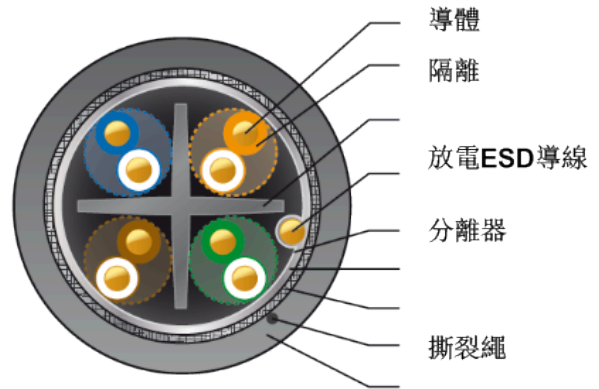
- ?????305????CAT5E????????ESD???
- ?????????????????????????????????
- ?????????????????????????????????
- ???POE?????????
- ??24 AWG????????26 AWG????????15kV?????

\*????????????????PoE?PoE????AP????????PoE??????

# TOUGH CablePRO



# TOUGH CableCARRIER



????????

- ??????(?)  
 ? 320 UAP  
 ? 1200 Usuarios(locales)  
 ? 3TB de descarga mensuales
- ?????(??)  
 ? 72 UAP 20 UAP-LR
- ?????(??)  
 ? 16 UAP
- ?????(??)  
 ? 30 UAP 20 PICOm2HP
- ??????(?)
- ?????????(??)



