Dodatok č. 1 k Zmluve o dodaní tovarov na vybudovanie bezplatného WiFi pripojenia podľa ustanovenia § 269 ods. 2 zákona č. 513/1991 Zb. Obchodný zákonník v znení neskorších predpisov.

Zmluvné strany

Objednávateľ: zastúpený: Adresa: IČO: DIČ: Telefón: E-mail: Bankové spojenie: IBAN:

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(ďalej "objednávateľ")

Dodávatel': zastúpený: Adresa: IČO: DIČ: IČ DPH: Telefón: WESTCOM s.r.o. Miloš Hudoba, poverená osoba Keltská 68, 851 10 Bratislava 44 808 704 2022856528 SK2022856528

Kontaktná osoba: Telefón:

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(ďalej "dodávateľ")

Poskytovateľ / Sprostredkovateľský orgán pre OP Integrovaná infraštruktúra: Úrad podpredsedu vlády Slovenskej republiky pre investície a informatizáciu konajúci v zastúpení Riadiaceho orgánu Ministerstva dopravy a výstavby Slovenskej republiky

(ďalej aj "SO OPII")

(ďalej len "RO OPII")

Čl. 1. Východiskové podklady a údaje

- Dodávateľ a objednávateľ uzatvorili dňa 10.12.2019 Zmluvu o dodaní tovarov na vybudovanie bezplatného WiFi pripojenia a to na základe výsledku verejného obstarávania, vyhláseného v zmysle § 117 zákona č. 343/2015 Z. z. o verejnom obstarávaní a o zmene a doplnení niektorých zákonov na predmet zákazky "Dodanie bezdrôtových prístupových bodov na verejných priestranstvách v rámci obce".
- 2) Tento Dodatok č. 1 sa uzatvára v súlade s ustanovením §18 bod c) zák. č. 343/2015 Z. z. o verejnom obstarávaní a o zmene a doplnení niektorých zákonov, potreba zmeny vyplynula s okolností, ktoré verejný obstarávateľ nemohol pri vynaložení náležitej starostlivosti predvídať, pričom jeho uzatvorením nedochádza k podstatnej zmene pôvodnej zmluvy. Čl. 2. Zmena zmluvy
- Článok 6 bod 2 sa mení nasledovne: Dodávateľ preberá záruku za akosť vykonaných prác v zmysle Obchodného zákonníka. Záručná doba za jednotlivé komponenty technologických častí je určená ich výrobcom v záručných listoch.

Zmluva o dodaní tovarov na vybudovanie bezplatného WiFi pripojenia

Záručná doba za kabeláž a montážne práce je 60 mesiacov odo dňa ich prevzatia objednávateľom. Zhotoviteľ zodpovedá že celý predmet zákazky bude počas 60 mesiacov spôsobilý na zmluvný účel a zachová si počas tejto lehoty dohodnuté vlastnosti.

2) Článok 7 bod 6 sa mení nasledovne:

Táto zmluva nadobúda platnosť dňom jej podpisu zmluvnými stranami a účinnosť deň nasledujúci po dni zverejnenia. Objednávateľ si vyhradzuje právo od zmluvy odstúpiť prípadne posunúť dobu plnenia vzhľadom ku stanoviskám Poskytovateľa k procesu VO a podpisu zmluvy. Dodávateľ berie na vedomie, že zákazka financovaná z fondov EÚ, ohľadom, ktorej sa uzatvára zmluva, bude predmetom ex post kontroly procesu verejného obstarávania zo strany príslušného Riadiaceho orgánu alebo Sprostredkovateľského orgánu pod Riadiacim orgánom. Schválenie zákazky v rámci ex post kontroly príslušným orgánom je zároveň podmienkou nadobudnutia účinnosti zmluvy.

3) K prílohám zmluvy sú doplnené: Príloha č. 3 – Podrobný popis prístupových bodov AP s väzbou na finančné limity Príloha č. 4 – Test splnenia technických parametrov (TSTP) v rámci "Wifi pre Teba" Príloha č. 5 – Technické listy dodávaných aktívnych prvkov a tvoria neoddeliteľnú súčasť zmluvy.

Čl. 3. Záverečné ustanovenia

- 1) Zmeny uvedené v tomto Dodatku neporušujú podmienky uvedené pri verejnom obstaraní na predmet diela. Všetky podmienky verejného obstarávania sú zachované.
- 2) Tento Dodatok k Zmluve je vypracovaný v 4 vyhotoveniach, objednávateľ obdrží 2 vyhotovenia a dodávateľ 2 vyhotovenia.
- 3) Tento Dodatok nadobudne platnosť dňom jeho podpisu štatutármí všetkých zmluvných strán.
- 4) Tento Dodatok nadobudne účinnosť dňom nasledujúcim po dni jeho zverejnenia na webovej stránke objednávateľa.
- 5) Zmluvné strany vyhlasujú, že obsah tohto dodatku je zrozumiteľný a určitým prejavom ich slobodnej a vážnej vôle, ktorý nebol urobený v tiesní za nápadne nevýhodných podmienok, ktoré by mohlí spôsobiť jeho neplatnosť, na znak čoho pripájajú svoje podpisy.
- 6) Týmto dodatkom nie sú dotknuté ostatné ustanovenia zmluvy o dielo.

vciach dňa 20.10-2020 Bratislave dňa Mila. Mix starosta štatuta WESTCOM S.r.o. Koltoka 930/68 851 10 Bratislava ICO: 44 808 704, DIC: 2022256528 DIC DPH: SK2022856528

Zmluva o dodaní tovarov na vybudovanie bezplatného WiFi pripojenia

2/2

.2.

Externé AP	Označenie bodu	Číslo parcely	GPS súradnice			Číslo listu vlastníctva
1.	Obecný úrad	C 198	AP 1: 48.427014°	18.326972°		LV č. 1
2.	Detské ihrisko	C 198/1	AP 2: 48.428157°	18.327632°		LV č. 1
3.	Areál Bôrina	E 2114/3	AP 3, : 48.431073°	18.325230°		LV č. 1
4.	Multifunkčné ihrisko	E 873	AP4 48.426013°	18.326841°		LV č.348
5.	Škôlka, školský areál	E 870	AP 5: 48.426376°	18.326768°		LV č. 348
6.	Detské ihrisko	C 198	AP 6: 48.426262°	18.326119°		LV č. 1
7.	VP pri cintoríne	E 1649/2	AP 7: 48.425738°	18.326187°	25,	LV č. 666
8.	VP pri futbalovom ihrisku	E1649/3	AP 8: 48.421466°	18.327921°		LV č. 1
9.	Kultúrny dom	C198	ар 9, 48.427522°	18.327378°		LV č. 1
10	Autobusová zastávka	C192/1	AP10: 48.426930°	18.327794°		LV č. 348

Priloha č. 1 Priručky pre prijimateľa DOP Wifi pre Teba - priloha k ŽoP: Podrobný popis pristupového bodu (AP) s väzbou na finančné limity

Položka	Merná jednotka	Počet jednotlek	Jednotková cena (v EUR bez DPH)	Vysúťažená suma celkom (v EUR s DPH)	Limity podľa Priručky pre oprávnenosť výdavkov POT OPII pre dopytovo orientované projekty "Wifi pre Tebu" (max. suma za 1 AP v EUR s DPH)
Externý prístupový bod (AP) č. 1: rozpísať všetky nákladové položky daného		(nevyplifia sa)		1472,28	1 500,00
AP, ktoré sů uvedené na faktúre. Vonkajšia jednotka na širenie signálu	ks	1	300	360	(neryplita sa)
úchyl pre vonkajšiu jednotku Skrinka na zariadenia	ks ks	1	36,21 49,9	42,26 69,88	(nenypiña sa) (nenypiña sa)
Vzdušný optický internetový prepoj Elektrická kabeláž	ks ks	1	220,5 570	264,6 68,4	(renyplén sa) (renyplén sa)
RouterOS Dátová kabeláž	ks ks	0,1	193,1 800	23,17	(nerypl/ta sa) (nerypl/ta sa)
Inštalačné práce Osbrona siete a smerovať dát	hod	6	36	216	(newplife se)
Pomocný materiál	ks		50 60	72	(nevypina sa) (nevypina sa)
Switch Externý pristupový bod (AP) č. 2:	ks	(nerrypline sa)	197,98	237,58	(resystia sa) 1 500,00
rozpísať všetky nákladové položky daného AP, ktoré sú uvedené na faktúre:			6	nevyplňa sa)	
Vonkajšia jednotka na širenie signālu úchyt pre vonkajšiu jednotku	ks ks	1	300 35,21	360 42,25	(nevypina sa) (nevypina sa)
Skrinka na zariadenia Vzdušný optický internetový prepoj	ks ks	1	49,9 220,6	59,88 264,6	(nevypíria sa) (nevypíria sa)
Elektrická kabeláž RouterOS	ks ks	0,1	570 193,1	68,4 23,17	(nevypina sa) (nevypina sa)
Dátová kabeláž Inštalačné práce	ks hod	0,1	800	96	(nevyplna sa) (nevyplna sa)
Ochrana siete a smerovať dát	ks	0,1	270	32,4	(nevypina sa)
Interný prístupový bod (AP) č. 3: rozpísať všetky nákladové položky daného AP, ktoré sú uvedené na faktúre:		(novýplňa sa)	1472,28 revypl/fa sa)	1 500,00
Vonkajšia jednotka na širenie signálu úchyt pre vonkajšiu jednotku	ks ks	1	300 35,21	360	(nerypina sa) (nerypina sa)
Skrinka na zarladenia Vzdušný optický internetový prenoj	ks ks		49,9	59,88 264 6	(revystra sa) (revystra sa)
Elektrická kabeláž	ks	0,1	670	68,4	(novypina ta)
Dátová kabeláž	ks	0,1	800	23,17	(nevypita sa)
Ochrana siete a smerovať dát	ks	6 0,1	36 270	216 32,4	(hervypiha sa) (hervypiha sa)
Pomocný materiál Switch	ks ks	1	60 197,98	72 237,68	(легур/ка за) (легур/ка за)
Interný pristupový bod (AP) č. 4: rozpísať všetky nákladové položky daného		(nevypika su	1	1450,7 revyp/na sa)	1 500,00
AP, ktoré sú uvedené na faktúre. Vonkajšia jednotka na širenie signálu	ks	1	300	360	(nevypléa 1a)
úchyt pre vonkajšiu jednotku Skrinka na zariadenia	ks ks	1	35,21	42,25 59,88	(neryplita sa) (neryplita sa)
Vzdušný optický internetový prepoj Elektrické kabelét	ks	1	220,5	264,6	(newplia sa)
RouterOS	ks	0,1	193,1	23,17	(nevyplaa ta) (nevyplaa ta)
Inštalačné práce	hod	10	36	432	(neryprine ta) (neryprine ta)
Ochrana siele a smerovať dát Pomocný materiál	ks ks	0,1	270 60	32,4	(nevypina sa) (nevypina sa)
Interný pristupový bod (AP) č. 5: rozpisat všetky nákladové položky daného	Contraction and	(nevyplics sa	0	1450,7	1 500,00
AP, ktoré sú uvedené na laktúre Vonkajšia jednotka na širenie signálu	ks	1	300	360	(nevyplita sa)
úchyt pre vonkajšiu jednotku Skrinka na zariadenia	ks ks	1	35.21 49.9	42,25	(nevyplika sa) (nevyplika sa)
Vzdušný optický internetový prepoj Elektrické kabelář	ks	1	220,5	264,6	(nevypl/ta sa)
RouterOS	ks	0,1	193,1	23,17	(nevy)/As sa)
Inštalačné práce	hod	10	36	432	(nevypina ta) (nevypina ta)
Ochrana siete a smerovať dát Pomocný materiál	ks ks	0,1	270 60	32,4	(nevypina sa) (nevypina sa)
Interný pristupový bod (AP) č. 6: rozpísať všetky nákladové položky daného AP, ktoré sú uvedené na faktúre		(nevypiña sa	(1450,7 revyplňa sa)	1 500,00
Vonkajšia jednotka na širenie signālu ūchyt pre vonkajšiu jednotku	ks ks	1	300 35,21	360 42,25	(nevypina sa) (nevypina sa)
Skrinka na zariadenia Vzdušný optický internetový prepoj	ks ks		49,9 220,6	59,88 264,6	(nevyplna sa) (nevyplna sa)
Elektrická kabeláž RouterOS	ks	0,1	570	68,4	(revypika sa) (revypika sa)
Dátová kabeláž	ks	0,1	800	96	(nevypina sa)
Ochrana siete a smerovať dát	ks	0,1	270	32.4	(newplife ta)
Pomocný material Interný pristupový bod (AP) č. 7	ks	foevyphia sa	60 V	72 1450,7	(new)piña ta) 1.600,00
rozpísať všetky nákladové položky daného AP, ktoré sú uvedené na faktúre			· · · · · · · · · · · · · · · · · · ·	nevyplaa sa)	
Vonkajšia jednotka na širenie signálu úchyt pre vonkajšiu jednotku	ks ks	1	300 35,21	360 42,25	(nevypiha sa) (nevypiha sa)
Skrinka na zariadenia Vzdušný optický internetový prepoj	ks	1	49,9 220,5	59,88 264,6	(nevypiha sa) (nevypiha sa)
Elektrická kabeláž RouterOS	ks ks	0,1	570 193.1	68,4 23,17	(nesspika sa) (nesspika sa)
Dátová kabeláž Inštalačné práce	ks	0,1	800	96	(nevyplia sa)
Ochrana siete a smerovať dát	ks	0,1	270	32,4	(nevypika ta)
Externý pristupový bod (AP) č. 8:	K3	(navypika sa	0 0	1450,7	(/#*/)(//a 1a) 1 600,00
rozpísal všetky nákladové položky daného AP, ktoré sú uvedené na faktúre			· · · · · · · · · · · · · · · · · · ·	nevyplňa sa)	
Vonkajšia jednotka na širenie signalu úchyt pre vonkajšiu jednotku	ks ks	1	300 36,21	360 42,25	(nevypina sa) (nevypina sa)
Skrinka na zariadenia Vzdušný optický internetový prepoj	ks ks	1	49,9 220,5	59,88 264,6	(nevyplika sa) (nevyplika sa)
Elektrická kabeláž RouterOS	ks	0,1	570	68.4 23.17	(nevyplina sa) (nevyplina sa)
Dátová kabeláž	ks	0,1	800	96	(nevyplin sa)
Ochrana siete a smerovať dát	ks	0,1	270	32,4	(nevyplia sa)
Externý pristupový bod (AP) č. 8:		(nevyplas sa	N 00	1402,1	1 500,00
rozpisal všetky nákladové položky dáného AP, ktoré sú uvedené na faktúre				nevyplňa sa)	the standard
Vonkajšia jednotka na širenie signálu úchyt pre vonkajšiu jednotku	ks ks	1	300 35,21	360 42,25	(nevytika sa) (nevytika sa)
Skrinka na zariadenia Elektrická kabeláž	ks ks	1	49,9	59,88 68,4	(nevyslňa sa) (nevyslňa sa)
RouterOS Dátová kabeláž	ks ks	0,1	193,1 800	23,17	(nevyzina sa) (nevyzina sa)
Inštalačné práce Ochrana siete a smerovať dát	hod ks	15	36	648 32 4	(nevyplia sa) (nevyslia sa)
Pomocný materiál	ks	1	60	72	(nevypina sa)
rozpísať všetky nákladové položky daného		(norypora 16		nevypińa saj	1 900,00
Vonkajšia jednotka na širenie signálu	ks	1	300	360	(nevyplňa sa)
ucnyt pre vonkajšiu jednotku Skrinka na zariadenia	ks	1	35,21 49,9	42,25	(nevyp/ha sa) (nevyp/ha sa)
Elektrická kabeláž RouterOS	ks ks	0,1	670 193,1	68,4 23,17	(nevyplňa sa) (nevyplňa sa)
Dátová kabeláž Inštalačné práce	ks hod	0,1	800	96 648	(nenytiha sa) (nenytiha sa)
Ochrana siete a smerovať dát Pomocný materiál	ks ks	0,1	270	32,4	(nevyzlňa sa) (nevyzlňa 18)
Celkom	1	1.11		14462,96	Contraction of the second seco

Search article base

Ubiquiti Help > UniFi Network > UniFi Network Configuration, Routing and Switching > Manage Switching Configurations

UniFi - USW: Configuring Access Policies (802.1X) for Wired Clients

Overview

This article describes how to configure access policies (802.1X) on UniFi switches for wired clients. This article includes instructions on how to configure using the RADIUS server built-in to the UniFi Security Gateway and also controller configuration examples to point to your own authentication server.

NOTES & REQUIREMENTS:

Please complete the prerequisite configuration found in the UniFi - USG: Configuring RADIUS Server article before following this guide's instructions.

Every UniFi switch model is capable of authentication via 802.1X. The configuration does not change from model to model. Devices used in this article:

- UniFi Switch
- UniFi Security Gateway

Table of Contents

- 1. Introduction
- 2. Network Diagram
- 3. How to Enable the 802.1X Service on a Switch
- 4. Differentiating 802.1X Port Modes

- 5. How to Configure Fallback VLAN
- 6. Controller Configuration for Non-USG RADIUS Server
- 7. Related Articles

Introduction

The 802.1X standard has three components:

- Authenticators: Specifies the port or device that is sending messages to the RADIUS server before permitting system access.
- **Supplicants:** Specifies host connected to the port requesting access to the system services.
- Authentication Server: Specifies the external server, for example, the RADIUS server that performs the authentication on behalf of the authenticator, and indicates whether the user is authorized to access system services. The Port Access Control folder contains links to the following pages that allow you to view and configure 802.1X features on the system.

RADIUS Authentication and Authorization:

The process in which a client device is authorized with 802.1X goes as follows:

1. The client device is prompted for credentials.

2. User inputs credentials.

3. The client device sends a request on the data link layer to an authenticator to gain access to the network.

4. The authenticator device then sends a messaged called the "RADIUS Access Request" message to the configured RADIUS server.

NOTE: This message includes but is not limited to username, password, or certificate provided by the user for access.

5. The RADIUS server then returns one of three responses to the authenticator:

• Access-Reject: The user entered is denied all access either based on inability to provide correct identification or the user has been removed from the RADIUS server.

- Access-Challenge: The user needs additional information to authenticate such as secondary password, token, PIN, or card. This message is also used in more complex authentication where a secure tunnel is established between the user machine and RADIUS server.
- Access-Accept: The user is granted access to the network.

NOTE: Additionally there may be other attributes passed on to the authenticator about the client including:

- Static IP to be used for the client.
- A specific address pool to be used for the client.
- Maximum time that a client can be authenticated.
- Access list parameters
- QoS specifics
- VLAN id to be used for the client (Dynamic VLAN).

Network Diagram



How to Enable the 802.1X Service on a Switch

This option is found on the switch properties panel under **Config > Services** in the **Security** section when selecting an individual switch from the "Devices" section of the controller.

Security			
Enable 802.	1X contro	bl	
RADIUS Profile	e		
Default	~	Create new RADIUS profile	
Fallback VLAN			
Cuest Note	vork V	Create new network	

ATTENTION:Enabling access control is done a per switch basis. If this is not enabled, the switch will not be able to act as an authenticator to pass RADIUS messages to the RADIUS server.

Differentiating 802.1X Port Modes

- Auto: The port is unauthorized until a successful authentication exchange has taken place.
- Force Unauthorized: The port ignores supplicant authentication attempts and does not provide authentication services to the client
- Force Authorized: The port sends and receives normal traffic without client portbased authentication.
- MAC-Based: This mode allows multiple supplicants connected to the same port to each authenticate individually. Each host connected to the port must authenticate separately in order to gain access to the network. The hosts are distinguished by their MAC addresses.

Working with Port Profiles

Using port profiles for rapid deployment is recommended instead of applying 802.1X policies manually on each port.

1. Navigate to Settings > Profiles > Switch Ports.

2. Create a new profile with the desired 802.1X control.

	RAD	
CREATE NEW SWITCH PORT PROF	ILE	
Profile Name		
РоЕ	Do not modify Off	24V Passive PoE/PoE+ Passth
NETWORKS/VLANS $>$ ADVANCED OPTIONS \sim		
802.1X Control	Auto 💿 Force authorized	Force unauthorized MAC-base
Link Speed	Autonegotiation	
Isolation	Enable port isolation	
Storm Control	Unknown Unicast	pkts/s
	Multicast	pkts/s
	Broadcast	pkts/s
LLDP-MED	Enable LLDP-MED Enable topology change notif	fication
Rate Limit	Enable egress rate limit	

NOTE: When using dynamic VLAN assignment on RADIUS the port profile must include each VLAN desired for use.

How to Configure Fallback VLAN

The fallback VLAN is used when a client fails to authenticate with username and password or MAC authentication bypass. This setting is defined per-switch.

This option is found on the switch properties panel under Config > Services in the Security section when selecting an individual switch from the "Devices" section of the controller. The Fallback option will appear once the 802.1X control option is enabled. **Controller version 5.9+ required.**

Controller Configuration for Non-USG RADIUS Server

1. Navigate to **Settings > Profiles > RADIUS.**

2. Create a new RADIUS Profile with the information for the external RADIUS server.

	RADIU	s s	WITCH P	ORTS BETA	
CREATE NEW RADIUS PROFILE					
Profile Name	Domain NPS				
VLAN Support	Enable RADIUS assigned VLAN	for wire	ed network	‹	
	Enable RADIUS assigned VLAN	for wire	eless netw	ork	
RADIUS Auth Server	IP Address	Port	1812	Password/Shared Secret	• ×
Accounting	Enable accounting				
Interim Update 🧃	Enable Interim Update				
RADIUS Accounting Server	IP Address	Port	1813	Password/Shared Secret	• ×
SAVE CANCEL					

User Tip: Check out Microsoft's guide on how to administrate their NPS to manage RADIUS users, certificates, etc.

Related Articles

- UniFi USG: Configuring RADIUS Server
- UniFi Troubleshooting RADIUS Authentication

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802.11AC AP with Plug & Play Mesh

Models: UAP-AC-M, UAP-AC-M-PRO

High-Performance Wide-Area Wi-Fi with UniFi® Mesh Technology

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35 BEWEISS SamsungE
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 Lenevo
 Motorcla
 Apple
 Other

U

360 GINS 645 GB

Breakthrough Speeds up to 1300 Mbps in the 5 GHz Band

802.3af PoE Compatibility





Scalable Enterprise Wi-Fi Management

UniFi[®] is the revolutionary Wi-Fi system that combines enterprise performance, unlimited scalability, and a central management controller. The UniFi AC Mesh APs have a refined industrial design and can be easily installed using the included mounting hardware.

Easily accessible through any standard web browser and the UniFi mobile app (iOS or Android), the UniFi Controller software is a powerful software engine ideal for highdensity client deployments requiring low latency and high uptime performance.

Use the UniFi Controller software to quickly configure and administer an enterprise Wi-Fi network – no special training required. RF map and performance features, real-time status, automatic UAP device detection, and advanced security options are all seamlessly integrated.

Extend Your Coverage

Features

Save Money and Save Time UniFi comes bundled with a non-dedicated software controller that can be deployed on an on-site PC, Mac, or Linux machine; in a private cloud; or using a public cloud service. You also have the option of using the UniFi Cloud Key with built-in software.

Powerful Hardware The UniFi AC Mesh APs feature Wi-Fi 802.11AC with Plug & Play Mesh technology.

Intuitive UniFi Controller Software Configure and manage your APs with the easy-to-learn user interface.

Expandable Unlimited scalability: build wireless networks as big or small as needed. Start with one and expand to thousands while maintaining a single unified management system.

With the UniFi Controller software running in a NOC or in the cloud, administrators can manage multiple sites: multiple distributed deployments and multi-tenancy for managed service providers. Below are some deployment examples.



UniFi Controller

Packed with Features

Use the UniFi Controller to provision thousands of UniFi APs, map out networks, quickly manage system traffic, and provision additional UniFi APs.

Breakthrough RF Map

Use the RF map to monitor and analyze radio frequencies for optimal AP placement, configuration, and troubleshooting.

Powerful RF Performance Features

Advanced RF performance and configuration features include spectral analysis, airtime fairness, and band steering.

Detailed Analytics

Use the configurable reporting and analytics to manage large user populations and expedite troubleshooting.

Wireless Uplink

Wireless Uplink functionality enables wireless connectivity between APs for extended range. One wired UniFi AP uplink supports up to four wireless downlinks on a single operating band, allowing wireless adoption of devices in their default state and real-time changes to network topology.

For devices that support Plug & Play Mesh, this functionality is extended to allow multi-hop wireless uplink – so wirelessly uplinked APs can support uplink to other wirelessly uplinked APs.

Guest Portal/Hotspot Support

Easy customization options for Guest Portals include authentication, Hotspot setup, and the ability to use your own external portal server. Use UniFi's rate limiting for your Guest Portal/Hotspot package offerings. Apply different bandwidth rates (download/upload), limit total data usage, and limit duration of use.

All UniFi APs include Hotspot functionality:

- Built-in support for billing integration using major credit cards.
- Built-in support for voucher-based authentication.
- Built-in Hotspot Manager for voucher creation, guest management, and payment refunds.
- Full customization and branding of Hotspot portal pages.

Multi-Site Management

A single cloud-based UniFi Controller can manage multiple sites: multiple, distributed deployments and multi-tenancy for managed service providers. Each site is logically separated and has its own configuration, maps, statistics, guest portal, and admin read/write and read-only accounts.

WLAN Groups

Manage flexible configurations of large deployments. Create multiple WLAN groups and assign them to an AP's radio.



Dashboard

UniFi provides a visual representation of your network's status and delivers basic information about each network segment.



RF Map

Monitor UniFi APs and analyze the surrounding RF environment.



Statistics

UniFi visualizes network traffic in clear and easy-to-read graphs.

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UniFi Mobile App

Manage your UniFi devices from your smartphone or tablet.

Model Comparison



Enviro Simultaneous Dua 2.4 GHz Radi 2.4 GHz 5 GHz Radi 5 GHz Secondary Etherne PoE

Wall N Pole I Fast N

	UAP-AC-M	UAP-AC-M-PRO
nment	Indoor/Outdoor	Outdoor
l-Band		
o Rate	300 Mbps	450 Mbps
MIMO	2x2	3 x 3
o Rate	867 Mbps	1300 Mbps
MIMO	2x2	3 x 3
et Port		
Mode	24V Passive PoE 802.3af PoE: Alternative A	802.3af PoE
Mount		
Nount		
Nount		

Use Cases

Mesh Multi-Hop A large outdoor area, such as a park with minimal infrastructure, can take advantage of a mesh network comprised of the UniFi AC Mesh models.

Omnidirectional Coverage, Indoors or Outdoors The UAP-AC-M includes adjustable dual-band omni antennas.

You have the option to use a 5 GHz omni antenna¹ for spot-beam coverage in high-density locations with numerous APs and clients, like a conference hall or event center.

Directional Coverage, Outdoors The UAP-AC-M is versatile.

You have the option to use a 5 GHz sector antenna² (wide beam in the azimuth plane and narrow in the elevation plane) for broad outdoor coverage.

Maximum Coverage, Outdoors The UAP-AC-M-PRO is ideal for applications requiring 3x3 MIMO data rates for close-in omni coverage.

Temporary Installations Deploy the UniFi AC Mesh models for outdoor installations requiring guick setup and takedown, such as a street fair, music festival, or concert venue.

Different antenna gains are allowed for each regulatory domain or country. It is the installer's responsibility to check local regulations.



Both UniFi AC Mesh models provide wireless coverage for a street fair in a city plaza.

Datasheet

Hardware Overview

Model: UAP-AC-M

The UAP-AC-M provides simultaneous, dual-band, 2x2 MIMO technology and is available in single- and five-packs¹.

Compact Form Factor The UAP-AC-M discreetly integrates into any environment.

Weather-Resistant Enclosure The UAP-AC-M can be used indoors or outdoors.

Versatile Mounting The UAP-AC-M can be mounted on a wall, pole, or fast-mount of an optional Ubiquiti[®] high-gain antenna². (All accessories are included.)

Multiple Power Options The UAP-AC-M is compatible with 802.3af PoE Alternative A and 24V passive PoE. You can power it with the included Gigabit PoE adapter¹ or an 802.3af Alternative A compatible switch, such as the UniFi PoE Switch or EdgePoint[™] EP-R6.

Antenna Options Use the included omni antennas, or use the included fast-mount adapter to install the AP on an optional connectorized antenna² for expanded range coverage and customized pattern shaping.

- ¹ Five-packs do not ship with PoE adapters; we recommend powering the UniFi APs with the UniFi PoE Switch instead.
- ² Different antenna gains are allowed for each regulatory domain or country. It is the installer's responsibility to check local regulations.





The UAP-AC-M utilizes the same antenna connector technology as airMAX[®] antennas.²

Hardware Overview

Model: UAP-AC-M-PRO

The UAP-AC-M-PRO provides simultaneous, dual-band, 3x3 MIMO technology and is available in single- and five-packs*.

Weather-Resistant Form Factor The enclosure of the UAP-AC-M-PRO is designed to withstand the elements, making it ideal for outdoor deployment.

Powerful Coverage Built-in dual-band omnidirectional antennas deliver expanded range coverage outdoors.

Mounting Flexibility The UAP-AC-M-PRO can be mounted on a wall or pole. (All accessories are included.)

Dual Gigabit Ethernet Ports The primary port is for data and PoE; the secondary port is for bridging.

Multiple Power Options You can power the UAP-AC-M-PRO with an 802.3af compatible switch, UniFi PoE Switch, or the included Gigabit PoE adapter*.

* Five-packs do not ship with PoE adapters; we recommend powering the UniFi APs with the UniFi PoE Switch instead.





The UniFi AC M Pro APs cover the quad and park on a university campus.

IFI[®] **AC** MESH DATASHEET

UAP-AC-M Specifications

UAP-AC-M
353 x 46 x 34.4 mm (13.9 x 1.81 x 1.35")
152 g (5.36 oz) with Antennas
(1) 10/100/1000 Ethernet Port
Reset
24V Passive PoE (Pairs 4, 5+; 7, 8 Return); 802.3af Alternative A (Pairs 1, 2+; 3, 6 Return) (Supported Voltage Range: 44 to 57VDC)
24V, 0.5A Gigabit PoE Adapter*
Supported
8.5W
20 dBm 20 dBm
(2) External Dual-Band Omni Antennas 3 dBi 4 dBi
802.11 a/b/g/n/r/k/v/ac
WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
Up to 8 per Radio
Wall/Pole/Fast-Mount (Kits Included)
-30 to 70° C (-22 to 158° F)
-30 to 70° C (-22 to 158° F) 5 to 95% Noncondensing

* Only the single-pack of the UAP-AC-M includes a PoE adapter.

Advanced Traffic Management			
VLAN	802.1Q		
Advanced QoS	Per-User Rate Limiting		
Guest Traffic Isolation	Supported		
WMM	Voice, Video, Best Effort, and Background		
Concurrent Clients	250+		

Supported Data Rates (Mbps)		
Standard	Data Rates	
802.11ac	6.5 Mbps to 867 Mbps (MCS0 - MCS9 NSS1/2, VHT 20/40/80)	
802.11n	6.5 Mbps to 300 Mbps (MCS0 - MCS15, HT 20/40)	
802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps	
802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps	
802.11b	1, 2, 5.5, 11 Mbps	

UAP-AC-M-PRO Specifications

	UAP-AC-M-PRO
Dimensions	343.2 x 181.2 x 60.2 mm (13.51 x 7.13 x 2.37")
Weight	633 g (1.40 lb)
Networking Interface	(2) 10/100/1000 Ethernet Ports
Buttons	Reset
Power Method	802.3af PoE (Supported Voltage Range: 44 to 57VDC)
Power Supply	48V, 0.5A PoE Gigabit Adapter*
Power Save	Supported
Maximum Power Consumption	9W
Maximum TX Power 2.4 GHz 5 GHz	22 dBm 22 dBm
Antennas	(3) Internal Dual-Band Antennas 8 dBi
Wi-Fi Standards	802.11 a/b/g/n/r/k/v/ac
Wireless Security	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2, TKIP/AES)
BSSID	Up to 8 per Radio
Mounting	Wall/Pole (Pole Kit Included)
Operating Temperature	-40 to 70° C (-40 to 158° F)
Operating Humidity	5 to 95% Noncondensing
Certifications	CE, FCC, IC

 * $\,$ Only the single-pack of the UAP-AC-M-PRO includes a PoE adapter.

Advanced Traffic Management			
VLAN	802.1Q		
Advanced QoS	Per-User Rate Limiting		
Guest Traffic Isolation	Supported		
WMM	Voice, Video, Best Effort, and Background		
Concurrent Clients	250+		

Supported Data Rates (Mbps)						
Standard	Data Rates					
802.11ac	6.5 Mbps to 1300 Mbps (MCS0 - MCS9 NSS1/2/3, VHT 20/40/80)					
802.11n	6.5 Mbps to 450 Mbps (MCS0 - MCS23, HT 20/40)					
802.11a	6, 9, 12, 18, 24, 36, 48, 54 Mbps					
802.11g	6, 9, 12, 18, 24, 36, 48, 54 Mbps					
802.11b	1, 2, 5.5, 11 Mbps					

UNIFI AG MESH

UniFi Switch Compatibility

The UniFi switches are compatible with UniFi Access Points and UniFi G3 Video Cameras, as detailed below.

AP/Camera Model	US-8	US-8-60W	US-8-150W	US-16-150W	US-24-250W	US-24-500W	US-48-500W	US-48-750W
UVC-G3	-	~	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
UVC-G3-AF	\checkmark							
UVC-G3-DOME	\checkmark							
UAP	P	Ó	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
UAP-LR	\sim	~	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
UAP-PRO	\checkmark							
UAP-AC-LITE	\checkmark							
UAP-AC-LR	\checkmark							
UAP-AC-PRO	\checkmark							
UAP-AC-M	\checkmark							
UAP-AC-M-PRO	\checkmark							
UAP-AC-IW*	\checkmark							
UAP-AC-IW-PRO*	\checkmark							
UAP-AC-HD	_	-	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark



Compatible with the UniFi switch

Requires an Instant 802.3af Gigabit PoE Converter: INS-3AF-I-G 🥜 or INS-3AF-O-G

Note:

* For the UAP-AC-IW and UAP-AC-IW-PRO, PoE passthrough is supported by all of the switches listed above except for models US-8 and US-8-60W.

Related Product Datasheets



UniFi Switch 8, UniFi Switch 8-60W:

dl.ubnt.com/datasheets/unifi/UniFi Switch 8 DS.pdf

UniFi PoE Switches:

dl.ubnt.com/datasheets/unifi/UniFi_PoE_Switch.pdf

Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at: www.ubnt.com/support/warranty The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.

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UniFi[®] Controller Hybrid Cloud Model: UC-CK

Secure UniFi Hybrid Cloud Technology

Fully Integrated, Stand-Alone UniFi Controller Hardware

Remote, Private Cloud Access to the UniFi Controller





UniFi Controller with Hybrid Cloud

Big things do come in small packages. We took one of our biggest ideas and engineered it to fit into a tiny form factor. Introducing the UniFi Cloud Key, a miniaturized marvel of technology.

The UniFi Cloud Key is an integrated computer and software controller minus the bulk. It features a quad-core processor with 2 GB RAM, operating the latest version of the UniFi Controller with built-in hybrid cloud technology.

Breakthrough Efficiency

The UniFi Cloud Key is fully capable of configuring and managing dozens of UniFi devices in your deployment. Replacing a dedicated server or computer, the UniFi Cloud Key is an ultra-low energy solution with virtually no footprint.

System Example

Hybrid Cloud Technology

The Ubiquiti[®] hybrid cloud configuration provides a secure, private SSO (Single Sign-On) to access all of your UniFi deployments from anywhere in the world. With the Ubiquiti hybrid cloud, a third-party hosted cloud service is not required, so all of your personal data and network information remains local and secure–the way it should be.

Incredible, Agile Scalability

Add, provision, configure, monitor, and manage all of your UniFi devices, whether in one or thousands of private networks–all from a central control plane.

Easily accessible through any standard web browser, the UniFi Cloud Key is a powerful solution for managing your UniFi networks across the campus or across the globe.



UniFi Controller

Designed for convenient management, the UniFi Controller software allows admins to configure and monitor UniFi devices using a graphical user interface. There is no separate software, licensing, hosting, or support fee.

Multi-Site Management

A UniFi Cloud Key installed at each deployment site provides an always-on, private UniFi cloud service. Every site is accessible through its assigned secure SSO. Each UniFi Cloud Key is independent with its own network monitoring, configuration, maps, statistics, and admin accounts.

Improved User Experience

Redesigned to be more intuitive and easier to navigate, the new UI raises the bar for enterprise network management efficiency. Important network details are logically organized for a simplified, yet powerful, interface.

Network Overview

A comprehensive overview of your network health is readily available in the new dashboard. Monitor your network's vitals and make on-the-fly adjustments as needed.

Detailed Analytics

Use the configurable reporting and analytics to monitor large user groups and expedite troubleshooting.

LAN/WLAN Groups

The UniFi Controller can manage flexible configurations of large deployments. Create multiple LAN and WLAN groups and assign them to the respective UniFi devices.

Wi-Fi Management

Use the UniFi Controller to provision UniFi APs, configure wireless networks, map out networks, and quickly manage system traffic. Powerful Wi-Fi management features include:

- RF monitoring and device mapping
- Detailed RF performance analysis
- Band steering support
- Guest portal/hotspot support

Router and Switch Management

Use the UniFi Controller to provision UniFi Security Gateways and Switches. Configure a variety of features:

- WAN/LAN/VLAN configuration
- Operation mode (switching, mirroring, or aggregate) per port
- · PoE setting per port (device dependent)
- · Jumbo frame and flow control services
- Monitor and analyze performance of each port



Dashboard

UniFi provides a visual representation and status information about different aspects of your network.



Wi-Fi RF Map

Monitor UniFi APs and analyze the surrounding RF environment.



Insights

UniFi displays the client types for a specific time period.

Specifications

	UniFi Cloud Key
Dimensions	21.7 x 43.4 x 121.9 mm (0.85 x 1.71 x 4.80")
Weight	110 g (3.88 oz)
Processor	Quad-Core SoC
Memory	2 GB DDR
Internal Storage	16 GB
Networking Interface	(1) 10/100/1000 Ethernet Port
Buttons	(1) Reset to Defaults Shutdown
Power Method PoE USB Type C	48V 802.3af or Passive PoE (Pairs 4, 5+; 7, 8 Return) 5V
Power Supply	802.3af PoE or USB-C 5V, Minimum 1A
Max. Power Consumption	5W
Operating Temperature	0 to 40° C (32 to 104° F)
Operating Humidity	20 to 90% Noncondensing
Certifications	CE, FCC, IC



Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at: www.ubnt.com/support/warranty The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.



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