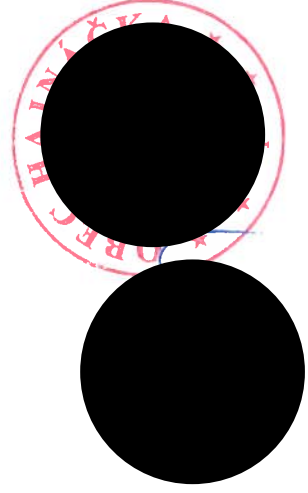


Príloha č. 5: Podrobný popis prístupového bodu (AP) s väzbou na finančné limit

Položka	Merná jednotka	Počet jednotiek	Jednotková cena (v EUR bez DPH)	Vysúťažaná suma celkom (v EUR s DPH)	Limity podľa Príručky pre oprávnenosť výdavkov PO7 OPIL pre dopytovo orientované projekty „Wifi pre Teba“ (max. suma za 1 AP v EUR s DPH)
Externý prístupový bod (AP) č. 2-3, 5-10:					1 500,00
Pristupový bod	ks	8	1 300,00	10 400,00	(nevypĺňa sa)
Inštalácia a konfigurácia AP	ks	8	100,00	800,00	(nevypĺňa sa)
Centrálne komponenty (switch, router, optické káble, ...)	ks	8	50,00	400,00	(nevypĺňa sa)
Spolu				11 600,00	(nevypĺňa sa)
Interný prístupový bod (AP) č. 1, 4, 11 :					1 000,00
Pristupový bod	ks	3	820,00	2 460,00	(nevypĺňa sa)
Inštalácia a konfigurácia AP	ks	3	100,00	300,00	(nevypĺňa sa)
Centrálne komponenty (switch, router, optické káble, ...)	ks	3	50,00	150,00	(nevypĺňa sa)
Spolu				2 910,00	(nevypĺňa sa)
Celkom				14 510,00	



CENOVÁ PONUKA

Názov zákazky: **WiFi pre obec Hajnáčka**
V rámci projektu: **Wifi pre obec Hajnáčka**
Miesto dodana: **Obec Hajnáčka**
Objednávateľ: **Obec Hajnáčka, Hlavné námestie 484, 980 33 Hajnáčka**
Dodávateľ: **FILLECK, s.r.o., Jánošíkova 12/A, 986 01 Fiľakovo**

P.Č	Názov	Počet	MJ	Cena za MJ s DPH	Cena celkom bez DPH	DPH 20%	Cena celkom s DPH
1	Interné WiFi zariadenie - prístupový bod	3	ks	820,00 €	2 050,00 €	410,00 €	2 460,00 €
2	SW manažment AP - k internému prístupovému bodu	3	ks	50,00 €	125,00 €	25,00 €	150,00 €
3	Inštalácia interného prístupového bodu + príslušná dokumentácia	3	ks	100,00 €	250,00 €	50,00 €	300,00 €
4	Externé WiFi zariadenie - prístupový bod	8	ks	1 300,00 €	8 666,67 €	1 733,33 €	10 400,00 €
5	SW manažment AP - k externému prístupovému bodu	8	ks	50,00 €	333,33 €	66,67 €	400,00 €
6	Inštalácia externého prístupového bodu + príslušná dokumentácia	8	ks	100,00 €	666,67 €	133,33 €	800,00 €

CENA CELKOM BEZ DPH

12 091,67 €

DPH

2 418,33 €

CENA CELKOM S DPH

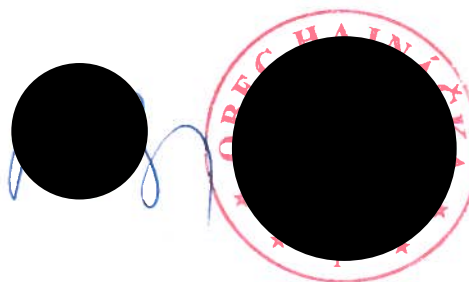
14 510,00 €

Interné WiFi zariadenie, typ, označenie:	Cambium, cnPilot e600
Externé WiFi zariadenie, typ, označenie:	Cambium, cnPilot e501s

Vyhotovil: Ing. Ladislav Fehér

Dňa:

21.09.2022



Test splnenia technických parametrov (TSTP) v rámci "Wifi pre Teba"

TSTP slúži pre žiadateľa ako podklad pre špecifikáciu riešenia spĺňajúcu minimálne technické parametre požadovaných vyzovov.

Technické parametre riešenia sa navrhujú v súlade so schválenou Štúdiou uskutočniteľnosti <https://metais.finance.gov.sk/studia/detail/8c95df2d-700e-47ce-a1b0-4cbf3334b453?tab=document> a musia spĺňať požiadavky Robustného, Spoľahlivého a Bezpečného produktu, ktorý poskytne občanom bezplatný prístup na internet prostredníctvom Wifi pripojenia.

1. **Robustný:** definuje minimálne technické parametre Prístupového bodu (Access pointu), resp. ostatného HW vybavenia.
2. **Spoľahlivý:** definuje minimálne podmienky pre poskytnutie kvalitného internetového pripojenia.
3. **Bezpečný:** definuje minimálne podmienky pre sieťovú a fyzickú bezpečnosť.

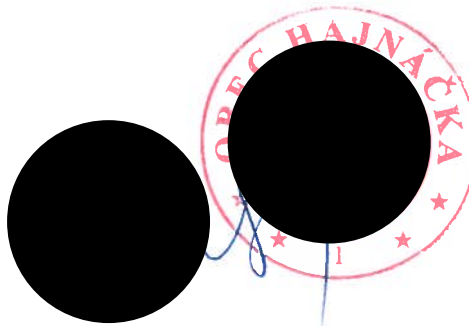
Upozornenie: výsledky tohto testu slúžia výlučne pre potreby žiadateľa a nie sú zárukou výsledku v procese schvaľovania žiadosti o NFP.

Otázka č.	Znenie otázky	Odkaz na relevantnú časť Technických listov (Žiadateľ uvedie predmetnú časť Technických listov, resp. iného relevantného zdroja zodpovedajúceho konkrétnemu parametru)	Odpoveď (po kliknutí na bunku vyberte jednu z možností)
1.	Kompaktné dvopásmové WiFi zariadenia (2,4GHz - 5 GHz), ktoré sú certifikované pre európsky trh?	Data sheet (je v prílohe ZoD)	Áno
2.	Životný cyklus použitých produktov vyšší ako 5 rokov?	Data sheet (je v prílohe ZoD)	Áno
3.	Stredná doba medzi poruchami (MTBF) minimálne 5 rokov?	Data sheet (je v prílohe ZoD)	Áno
4.	Možnosť centrálného manažmentu pre nadenie, monitoring a konfiguráciu siete (single point of management)?	Data sheet (je v prílohe ZoD)	Áno
5.	Súlad s „802.11ac Wave 1, Institute of Electrical and Electronics Engineers“ (IEEE) štandardom?	Data sheet (je v prílohe ZoD)	Áno
6.	Podpora 802.1x IEEE štandardu?	Data sheet (je v prílohe ZoD)	Áno
7.	Podpora 802.11r IEEE štandardu?	Data sheet (je v prílohe ZoD)	Áno
8.	Podpora 802.11k IEEE štandardu?	Data sheet (je v prílohe ZoD)	Áno
9.	Podpora 802.11v IEEE štandardu?	Data sheet (je v prílohe ZoD)	Áno
10.	Schopnosť AP obsluhovať naraz aspoň 50 rôznych užívateľov bez zníženia kvality služby?	Data sheet (je v prílohe ZoD)	Áno
11.	Minimálne 2x2 MIMO (multiple-input-multiple-output)?	Data sheet (je v prílohe ZoD)	Áno
12.	Súlad s Hotspot 2.0 (Passpoint WiFi Alliance certification program)?	Data sheet (je v prílohe ZoD)	Áno
13.	Súčasťou dodávky bude projektová dokumentácia ktorá bude obsahovať sieťové zapojenie aktívnych prvkov siete s IP adresným plánom, Simuláciu pokrytia priestoru, Meranie skutočného pokrytia, technické listy aktívnych prvkov, funkčný popis a vyobrazenie obsahu hotspot portálu s umiestneným logom?	Odovzdávací protokol, Data sheet (je v prílohe ZoD)	Áno

Všetky otázky sú zodpovedané

Počet odpovedí "nie" 0

Počet nezodpovedaných otázok 0



Podrobný popis prístupového bodu

WiFi Pre Teba Hajnáčka

Legenda k mapám

AP č.1 Interný Obecný úrad, Súpisné číslo 484

GPS: 48.2163575N,19.9524861E, LV 1251, Parc.č. CKN 706

AP č.2 Externý Obecný úrad, Súpisné číslo 484

GPS: 48.2164367N,19.9524325E, LV 1251, Parc.č. CKN 706

AP č.3 Externý Námestie/park, Súpisné číslo -

GPS: 48.2161511N,19.9534758E, LV 1, Parc.č. EKN965/1

AP č.4 Interný Zdravotné stredisko, Súpisné číslo 461

GPS: 48.2159739N,19.9551336E, LV 1, Parc.č. 169/1

AP č.5 Externý Zdravotné stredisko, Súpisné číslo 461

GPS: 48.2159739N,19.9551336E, LV 1, Parc.č. 169/1

AP č.6 Externý Futbalové ihrisko, Súpisné číslo 418

GPS: 48.2148608N,19.9534692E, LV 1, Parc.č. CKN433

AP č.7 Externý Požiarna zbrojnica, Súpisné číslo 416

GPS: 48.2162778N,19.9515367E, LV 1, Parc.č. CKN699

AP č.8 Externý Zastávka kolónia, Súpisné číslo -

GPS: 48.2267906N,19.9443189E, LV 237, Parc.č. CKN 1175/2

AP č.9 Externý Zastávka Dom Dôchodcov SS, Súpisné číslo -

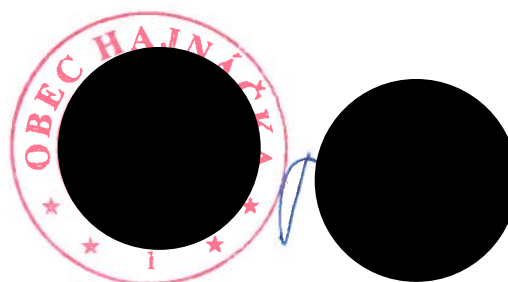
GPS: 48.2209675N,19.9529542E, LV 1, Parc.č. CKN 1342

AP č.10 Externý Štávia, Súpisné číslo -

GPS: 48.1987958N,19.9566408E, LV 1, Parc.č. E966/1

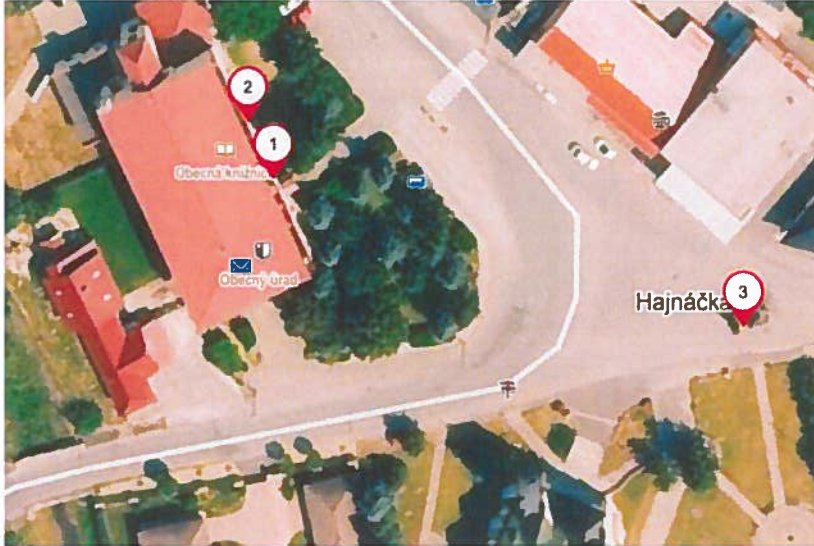
AP č.11 Interný Komunitné centrum, Súpisné číslo -

GPS: 48.2167250N,19.9528817E, LV 191, Parc.č. CKN397



WFI pre teba Hajnáčka

- č.1 Obecný úrad 1x interný AP SČ. 484, Parcela CKN 706, vedené na LV 1251, KÚ.Hajnáčka
- č.2.Obecný úrad 1x externý AP, SČ. 484, Parcela CKN 706, vedené na LV 1251, KÚ.Hajnáčka
- č.3.Námestie/park 1x externý AP, Parcela E 965/1, Vedené na LV 1, KÚ.Hajnáčka



- č.4. Zdravotné stredisko 1x interný AP, SČ.461, Parcela 169/1, Vedené na LV 1, KÚ.Hajnáčka
- č.5. Zdravotné stredisko 1x externý AP, SČ.461, Parcela 169/1, Vedené na LV 1, KÚ.Hajnáčka



č.6. Futbalové ihrisko 1x externý AP, SČ.418, Parcela CKN 433, vedené na LV 1, KÚ.Hajnáčka



č.7. Požiarna zbrojnica 1x externý AP, SČ. 416, Parcela CKN 699, vedené na LV 1, KÚ.Hajnáčka



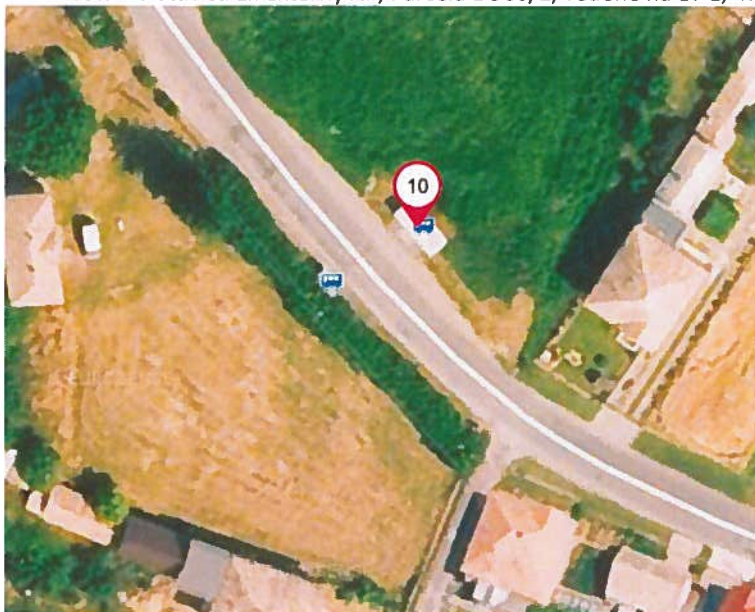
č.8.Zastávka Kolónia 1x externý AP, Parcela CKN 1175/2, vedené na LV 237, KÚ.Hajnáčka



č.9. Zastávka DDSS 1x externý AP, Parcela CKN 1342, vedené na LV 1, KÚ.Hajnáčka



č.10. Zastávka Šťavica 1x externý AP, Parcela E 966/1, vedené na LV 1, KÚ.Hajnáčka



č.11. Komunitné centrum Hajnáčka 1x interný AP, Parcela CKN 397, vedené na LV 191, KÚ.Hajnáčka



cnPilot e501S

Outdoor Sector Wi-Fi Access Point

IP67 802.11ac 90°~120° Integrated Sector Antenna



Perfect for demanding, high density applications and longer range coverage across large areas, including: industrial or education campuses, enterprise and hospitality complexes, public parks and recreational areas, or just about any demanding outdoor environment requiring cost-effective, controller managed WLAN access points.

THE CNPILOT WI-FI NETWORK HIGHLIGHTS

Operational superiority – The e501S with integrated sector antenna supports 256 client associations, 16 SSIDs, WPA-2 encryption, Dynamic VLANs, DFS channels, Access Control Lists (ACL), and more. The 802.11ac e501S is the essential workhorse for today's demanding, high density outdoor Wi-Fi networks.

High performance Wi-Fi network - All cnPilot's Enterprise access points (APs) support features like controller-less roaming, dynamic channel selection, automatic transmit power control, band steering, and more – essential features for easy Wi-Fi operations.

Mesh Rapidly setup multi-hop mesh networks either dedicating one radio (e.g.: 5 GHz) for mesh backhaul, or using both bands for client access simultaneously.


Wireless Backhaul Integration – the aux PoE port on the e501S offers PoE out, eliminating the need for a second power line perfect for powering on a standard 802.3af camera, or on Cambium's PMP 450 or ePMP backhaul subscriber modules (SMs) for wireless backhaul enabled Wi-Fi hotspots.

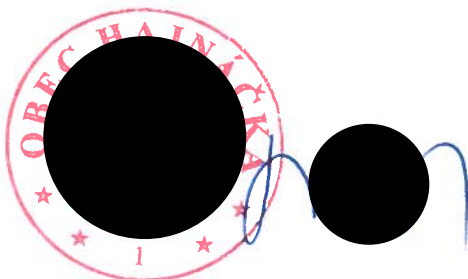
Resilience - Dual on-board Active/Standby memory banks ensure higher availability. The e501S can store two versions of the software – defaulting to a working operational software if needed – reducing the likelihood of site visits and increasing network up-time.

DESIGNED FOR THE OUTDOORS

- 802.11ac, 256 users, 16 SSIDs
- 90°~120° coverage
- 23 dBm front-back ratio
- UV rated IP-67 enclosure
- Operating Temp: -30C ~ +60C
- Electrical heater for cold start
- Ruggedized - ESD protection, industrial- grade components
- Packaged with wall & pole mount bracket
- Special LTE coexistence filters
- Light weight ~ 1.3 Kg

cnMAESTRO™ – WI-FI CONTROLLER

- Guest Access: Custom splash pages, vouchers, social login 
- Zero-touch provisioning
- Inventory tracking
- Map location
- Monitoring: key stats, alarms
- Mass (bulk) upgrade
- Integrated troubleshooting: Wi-Fi APs, clients & Cambium SMs
- Controller: Cloud or Virtual On-premises (NOC) controller



Access Point Specifications

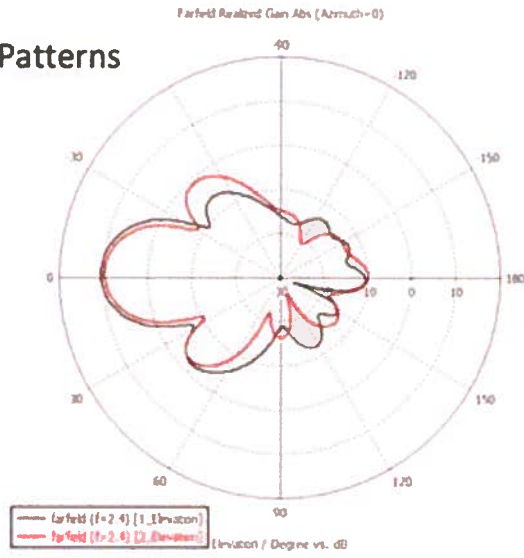
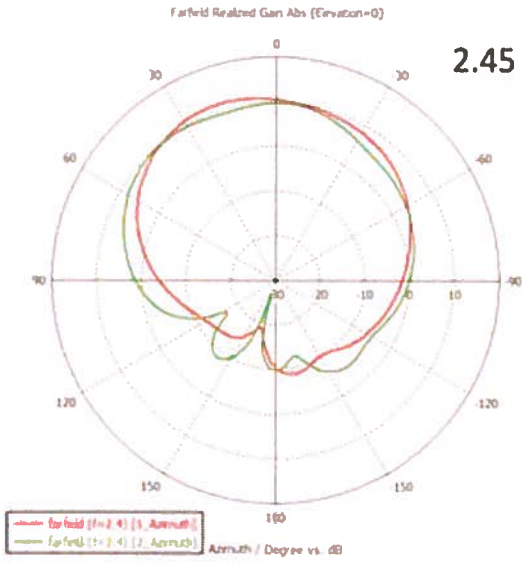
Standards	IEEE 802.11a/b/g/n/ac IEEE 802.11d/e/h/i/k/r/u/v/w Modulation: BPSK, QPSK, CCK, 16/64/256-QAM Radio modes : DSSS, OFDM	Frequency Bands	2.400 to 2.2484 GHz <i>(Country-specific limits apply, some bands require DFS)</i> 5.150 to 5.250 GHz 5.250 to 5.350 GHz 5.470 to 5.725 GHz 5.725 to 5.850 GHz
MIMO, Streams	2x2:2 MIMO	Power Supply	802.3af PoE Injector, or PoE switch. 802.3at or PoE+ if using PoE-Out Aux port.
Channel Width	20MHz, 40MHz, 80MHz	Dimensions	30 x 20.4 x 6.5 cm (11.8 x 8 x 2.55 Inch)
Concurrent Clients	256	Weight	1.3 Kg (2.8 lb)
SSIDs	16	Operating Temperature	-30°C to +60°C (-22°F to +140°F)
Antenna	Dual polarized, Omnidirectional, Integrated	Operating Humidity	up to 95% non-condensing
Transmit Power <i>(conducted total)</i>	2.4GHz : 29dBm 5GHz : 28dBm	Power Consumed	13W (max, without PoE-out) 8W (typical)
Antenna Gain	2.4GHz : 10.5dBi 5GHz : 13dBi	Secure Mounting	Kensington Key Slot
Max Data Rate	2.4GHz : 300Mbps 5GHz : 867Mbps	Environment Rating	IP67
LED	Two multi-color software controlled LEDs	MTBF	1,611,174 Hours
Interference Mgmt	Hardware LTE Filtering	PoE-Out	Aux Port supports Cambium and 802.3af modes
Ethernet Ports	Two auto-sensing auto MDIX Gigabit Ethernet (10/100/1000 Mbps) RJ45 Ports	Reset Button	Supported
Radio Features	Maximum ratio combining (MRC) Cyclic delay/shift diversity (CDD/CSD) Space-time blocking coding (STBC) Low-density parity check (LDPC) Packet Aggregation: A-MPDU, A-MSDU	Certifications	FCC, CE, IC, UL, EN60601-1-2 (Medical EMC), WEEE/RoHS compliance
Wi-Fi Alliance	Wi-Fi certified a,b,g,n,ac WPA2 – Enterprise, Personal WMM, Passpoint	Mounting Options	Wall and Pole mount bracket. Supports Poles with 1.5" and 3" Diameter.

Wi-Fi Features

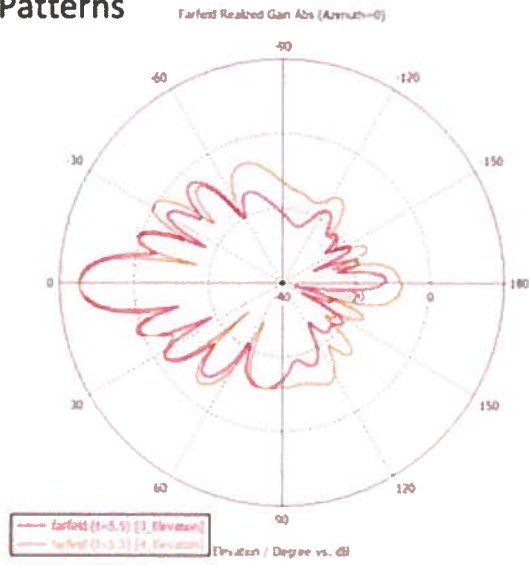
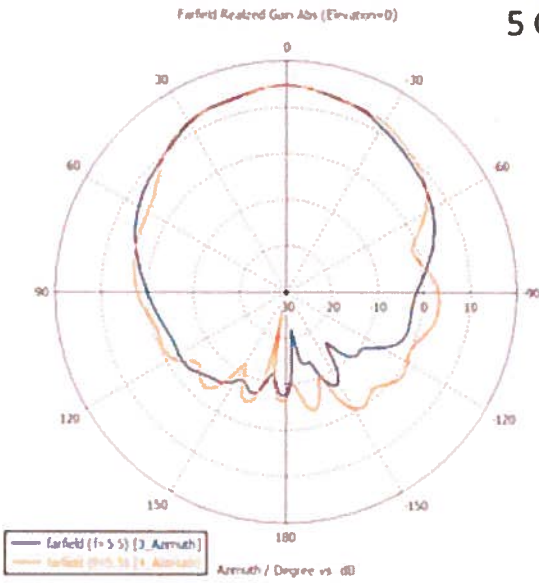
Management Modes	cnMaestro cloud managed cnMaestro on-premises VM controller managed Autopilot (AP as controller) Standalone with AP GUI (http/https), CLI (telnet/ssh)	Wireless Security	WPA-TKIP, WPA2-AES, 802.11i WPA-PSK, WPA2-PSK, WPA2-Enterprise 802.1x Authentication with various EAP types (EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-AKA', EAP-FAST Protected Management Frames (802.11w)
RF Management	AutoRF automatically manages channel and power	Dynamic SSID Service	By time/date, by monitored host.
Guest Access Captive Portal	cnMaestro Controller Portal Integrates with 3 rd party Guest Access Portals Built-in Portal on AP LDAP & RADIUS authentication Walled Garden with DNS whitelist Wireless as well as Wired devices supported.	MAC Authentication	On-AP MAC filtering list. On-Controller MAC filtering list. RADIUS MAC Authentication. MAC Authentication fallback to Captive Portal
Rate Limiting	Per-client, Per-WLAN static and dynamic rate limiting	Firewall	Layer-2, Layer-3, DNS ACL. DoS Attack Protection.
Client Isolation	On AP, Network-wide.	3G/4G/LTE Offload	Passpoint (Hotspot 2.0)
Fast Roaming	802.11r, Opportunistic Key Caching, Enhanced Roaming	DHCP Relay	Supported, with Option-82 customization
Airtime Mgmt	Airtime Fairness, Band Steering, Band Balancing	NMS Monitoring	SNMP v1, v2c, v3
AAA Support	RADIUS Authentication, Accounting, Dynamic Authorization (CoA, DM). Server failover, load-balancing	Client APIs	Client Presence/Location API DNS, NAT and TCP Connecting Logging
QoS	802.11e/WMM QoS. DSCP/ToS mapping.	Time Synchronization	Auto (from controller), NTP
Ethernet (L2) Services	802.1p/802.q, RADIUS assigned VLAN, VLAN per SSID, VLAN pooling. LLDP. IGMP Snooping (v1/v2/v3)	Troubleshooting Tools	Packet Capture, Spectrum Analyzer, Ping, Traceroute, Syslogs
Mesh	WDS Mesh with Single and Multiple radio hops.	Traffic Tunnels	L2TP, L2oGRE, PPPoE
Network Services	NAT, DHCP Server		

2D GAIN PATTERNS

2.45 GHz Patterns



5 GHz Patterns



ORDERING INFORMATION: cnPILOT e501S

Regulatory Model Number (common to all SKUs):

C000100P501

A Sales part #

Region

PL-E501SYXXA-<US/EU/CA/IL/IP/EG/LK/RW> Y = if this position has a "p", then that SKU includes a PoE Injector and localized AC line cord
 Y = if this position has a "X", then that SKU does not include a PoE Injector or AC line cord. YY will always be "00"
 XX = if this position has a two-digit country code, then a localized AC line cord is included for the specified country code. The following countries require a unique two-digit regulatory country code appended to the part number:
 United States (US), Canada (CA), Europe (EU), Israel (IL), Egypt (EG), Sri Lanka (LK). For other certified countries, use the Rest of World (RW) two-digit country code

Discover more information on cnPilot at: <http://community.cambiumnetworks.com/>

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cnPilot e600 Indoor

Gigabit 802.11ac wave 2 dual band 4x4 Indoor access point

The High powered, Gigabit speed, beamforming, Multi-user MIMO (MU-MIMO) 802.11ac wave 2 e600 access point with a 4x4 array antenna array implements the latest standards. Perfect for just about any place needing high capacity throughput, high range, and/or high client capacity. Ideal workhorse to take on high traffic demand in Classrooms (Schools), Indoor public spaces, Malls, Hotels, or Enterprise offices



CONTROLLER MANAGED + AUTONOMOUS

Managed by Cambium's cnMaestro™ cloud controller or On-premises controller, the cnPilot e600 management includes:

- Zero touch onboarding • Inventory tracking • Monitoring
- Mass Configuration • Dashboard views with Alarms • Mass upgrade • Troubleshooting • Hierarchical device organization

CONTROLLER-LESS ROAMING. POWERFUL SIMPLICITY

The e600 supports seamless roaming for up to 1,000 clients without needing a controller in the network! Hotspot portal hosting on the AP itself offers controller-less simplicity.

MONETIZE: VOUCHERS, SOCIAL LOGIN



Monetize your Wi-Fi service; cnMaestro's Guest access feature supports splash page hosting, social login and payment gateway. All built-in power packed features available right on the controller! These features along with the ability to create time, rate and volume limited traffic profiles along with vouchers for temporary guest access makes the e600 ideal for Hotels, Coffee shops, Campgrounds, and Office guest Wi-Fi.

SERVICE AWARE WLANS. BETTER USER EXPERIENCE

Nothing is more frustrating than connecting to an Access point, but not getting to the Internet! When connection to a critical resource such as an external Gateway or AAA is down, the e600 can turn off the impacted SSIDs enabling client devices to select a different working neighboring Access point.

INDOOR/OUTDOOR WI-FI MESH. FLEXIBILITY

Indoor meshing across multiple e600s or Indoor/Outdoor meshing across the Indoor e600 and the Outdoor e500 offers a convenient way to easily expand Wi-Fi coverage without wires.

COVERAGE. CAPACITY. SPEED

The plenum rated e600, packs a max transmit power of 28 dB, and is DFS certified to make use of additional reserved 5GHz DFS channels, offering more flexibility than ever for both coverage and capacity. Throughput management via Airtime fairness, increased performance by Automatic channel scanning (ACS), and higher client device speeds from Band steering ensure your network can adapt to the dynamics of ever changing client behaviors.

HIGH DENSITY, HIGHLY AVAILABLE

A capacity of 256 max concurrent client associations, and 16 SSIDs, along with dual on-board Active/Standby memory banks ensure the e600 combines high density with high availability.

LICENSE FREE HIGH PERFORMANCE. ONE LOW PRICE.

The 802.11ac wave 2 e600 comes with a free controller, and no AP management license fees. One of the most competitively priced 4x4 Access point

SPECIFICATIONS

ACCESS POINT SPECIFICATIONS

Standards	IEEE 802.11a/b/g/n/ac Wave 2 Other standards: 802.11h/d/r/u/w/
MIMO Streams	2x2 (2.4 GHz), 4x4 (5 GHz) MIMO streams
Range	250 m (800 Ft)
Concurrent Clients	512
Max Data Rate	1.73 Gbps (1,733 Mbps)
SSID	16 SSIDs across 2 radios
Standards	-45.5 dBi (2.4 GHz) -4.25 dBi (5 GHz)
Multi-Hop Mesh	Yes. Supported on Indoor & Outdoor access points. Mesh auto-recovery supported.
Polarization	Dual-linear
Antenna Coverage	Omni (360°)
USB	Yes
Bluetooth radio	Yes BLE

Controller modes	<ul style="list-style-type: none"> • Autonomous Controller-less operations (i.e., roaming) • Cloud Managed • On-premise virtualized controller
------------------	---

WI-FI FEATURES

WPA-TKIP, WPA2 AES, 802.1x, 802.11w (Protected Management Frames)	
Hotspot 2.0 Passpoint	Yes
Captive Portal Guest Access	<ul style="list-style-type: none"> • enMaestro Controller based • Redirection to external RADIUS Server • Active Directory Integration
Authentication	Secure Web page, RADIUS based 802.1x including EAP-SIM/AKA, EAP-PEAP, EAP-TLS, and EAP-TLS MAC authentication (local database or External RADIUS server)
Accounting	Yes. Supports RADIUS based accounting to multiple AAAs
Scheduled SSID	Turn SSID ON/OFF on a daily/weekly time of day basis
VLAN	Dynamic VLAN assignment from RADIUS server. VLAN per SSID per user
Data Limiting	Dynamic rate limiting of client traffic per SSID
Subscriber QoS	WMM
Client Isolation	Yes
Controller-Less Fast Roaming	Yes. 802.11r. Opportunistic Key Caching supports Enhanced roaming <small>(Controller-less Fast Roaming)</small>

Cloud & On-Premises Available in the Cloud or as a downloadable virtualware image (On-Premises)

enMAESTRO WI-FI CONTROLLER

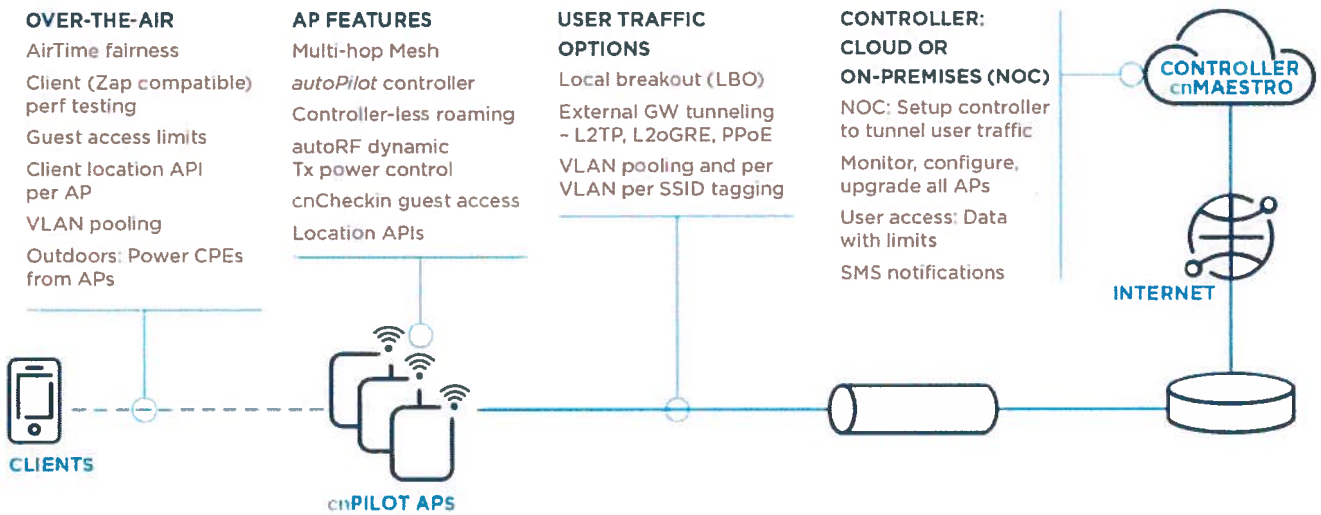
Common Manager	Manage both enPilot and Cambium's ePMP and PMP 450 radios
Troubleshooting	Single screen wireless view, showing Wireless backhaul, Access point & clients
Frictionless On-Boarding	Secure large scale bulk onboarding Zero touch bulk configuration and provisioning
Device Inventory	Inventory tracking and reporting
Monitoring	Insightful status monitoring, rich visibility to device lifecycle Alarms and events management – Critical/Major/Minor Statistics graphs and table display

Ethernet Ports	Two (2) x 1 Gigabit Ethernet (10/100/1000 Mbps)
12 V DC Input	Yes
Frequency bands	2.4 GHz, 2400-2484 MHz 5 GHz, 5150-5850 MHz with DFS band support
Power Supply (Multiple choices)	Standard 802.3at injector (supplied), 802.3at PSE, 802.3af PSE (limited performance), 12V dc adapter (accessory or PoE switch)
Power Consumed	22 W (max)
Dimensions	180x180x42mm (or 18x18x4.2cm)
Weight	400 g
Temperature	0°C to +50 °C
LED	Single LED window with tri-color (Amber, Blue, Green) display
Max TX Power	22 dBm
Physical Lock	Kensington key hole

Meshing	Multi-hop meshing supported (3)
ACS: Automatic Channel Selection	Yes. Set at start or run periodically
NAT	Yes
DHCP Server	Yes
Firewall	Yes. NAT logging
ACL, DNS-ACL	Yes. L2, L3 or DNS based access control
Band Steering Band Balancing	Yes
Airtime Fairness	Yes
Tunneling	<ul style="list-style-type: none"> • L2TP • L2oGRE • PPPoE
Tools	<ul style="list-style-type: none"> • Packet capture • Wireless Sniffer • IP connectivity • Tech support (logs) • Wi-Fi analyzer
Services	<ul style="list-style-type: none"> NTP server config Syslog servers SNMP traps support DNS proxy enPilot's critical resource service awareness feature reacts to the health of an external Gateway or AAA and turns SSID ON/OFF
APIs	Presence Locationing API
Certifications	FCC, ETSI, CE

Key Stats Monitoring	7 day historic stats
Portal Hosting	Setup Hotspot portals segmented by SSIDs
Voucher	Time and Rate limited Guest access portals with Vouchers for 1,000 client devices
Social Login	Facebook, Google
Site Grouping	Group sets access points for convenient management
Client Insight	Shows client history with aggregate client manufacturer views
Multiple Admins	Multiple admin provisioning per account
Software Upgrade	Ability to upgrade multiple WiFi devices at a time

THE ADAPTIVE CNPILOT NETWORK



OVER-THE-AIR

- AirTime fairness
- Client (Zap compatible) perf testing
- Guest access limits
- Client location API per AP
- VLAN pooling
- Outdoors: Power CPEs from APs

AP FEATURES

- Multi-hop Mesh
- autoPilot controller
- Controller-less roaming
- autoRF dynamic
- Tx power control
- cnCheckin guest access
- Location APIs

USER TRAFFIC OPTIONS

- Local breakout (LBO)
- External GW tunneling - L2TP, L2oGRE, PPOE
- VLAN pooling and per VLAN per SSID tagging

CONTROLLER: CLOUD OR ON-PREMISES (NOC)

- NOC: Setup controller to tunnel user traffic
- Monitor, configure, upgrade all APs
- User access: Data with limits
- SMS notifications

Ordering Information: The cnPilot e600 Indoor 802.11ac WAVE 2 Access point. Available in models with and without PoE Injectors

Regulatory Model Number (common to all SKUs): cnPilot™ E600 Indoor

Sales part #s (examples)	Description
PL-E600P<US/EU/XX>A- US/EU/RW	E600 with PoE injector. PL-E600PUA-US: FCC model. PL-E600PEU-EU: ETSI (EU), PL-E600PXXA-RW: ROW. IC certified as well.
PL-E600X00A-<US/EU/ROW>	E600 No PoE injector. FCC/ETSI (EU)/IC/ROW certified versions.

Other country specific SKUs are also available. Please contact an authorized Cambium cnPilot distributor for more details or see Cambium Partner portal for list of SKUs.

Discover more information on cnPilot at <http://community.cambiumnetworks.com/>