Data Sheet

A2400 Indoor Cellular Access Point

2024 - 04 - 30

The NetCloud Private Network solution includes plug-and-play Cellular Access Points (CAPs) that support the 4G LTE CBRS spectrum band 48. Sometimes referred to as small cells, these CAPs form the private Radio Access Network (RAN) that cellular endpoints and clients connect to and are authenticated through the Mobility Gateway. All indoor and outdoor CAPs work together to create contiguous private network connectivity across the entire customer landscape.

Ideal Wireless LAN Solution

When Wi-Fi doesn't provide adequate coverage, reliability, or client mobility, a Private Cellular Network (PCN) is an ideal solution. Outside of smaller commercial locations, Wi-Fi's "best effort" connectivity is not good enough at best, and often results in costly losses for larger footprint businesses due to connection dead zones, sticky clients, and limited coverage capabilities – especially outdoors. The NetCloud Private Networks A2400 Cellular Access Point inherently solves these issues by elegantly balancing deployment and management simplicity with powerful insights and control.

Reliability You Can Count On

NetCloud Private Networks excels in network determinism, client mobility, and overall reliability, markedly outperforming Wi-Fi. PCNs ensure predictable network behavior with guaranteed bandwidth, essential for critical applications. Unlike Wi-Fi, where client devices determine handoffs, potentially leading to connectivity gaps, NCPN manages client mobility seamlessly across multiple CAPs, ensuring devices maintain stable connections. This systemwide approach to managing connections enhances the reliability of the LAN, reducing downtime and maintaining consistent network performance.

Notable benefits

— Plug and play CAPs with automated provisioning and quick boot up.

— Sleek form factor with built-in antennas and aesthetics similar to a Wi-Fi AP.

— Utilizes dedicated spectrum and advanced interference management, significantly reducing the risk of connection drops and ensuring superior connectivity.

— Flexible power options with PoE+ or DC input.

— Time Division Duplex (TDD) modes 1 and 2 enable customizable uplink and downlink throughputs.

Product Page

NetCloud Service

Quick Start Guide

Cellular Access Point Specifications
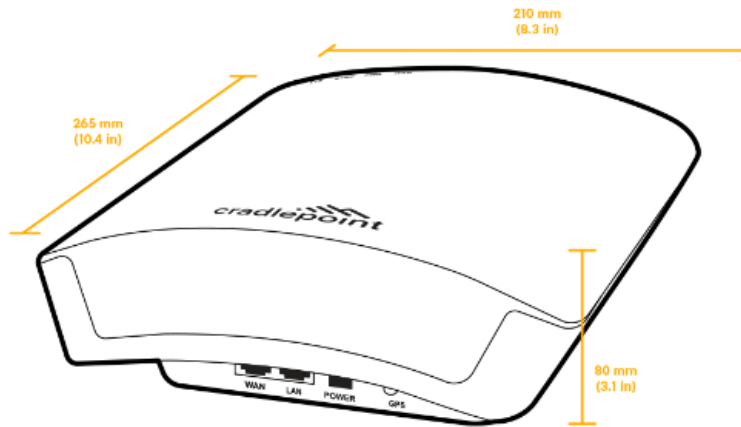
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The CAP is a TDD-LTE small cell with internal antennas that provides connectivity to the SIM-authenticated devices in the private network.
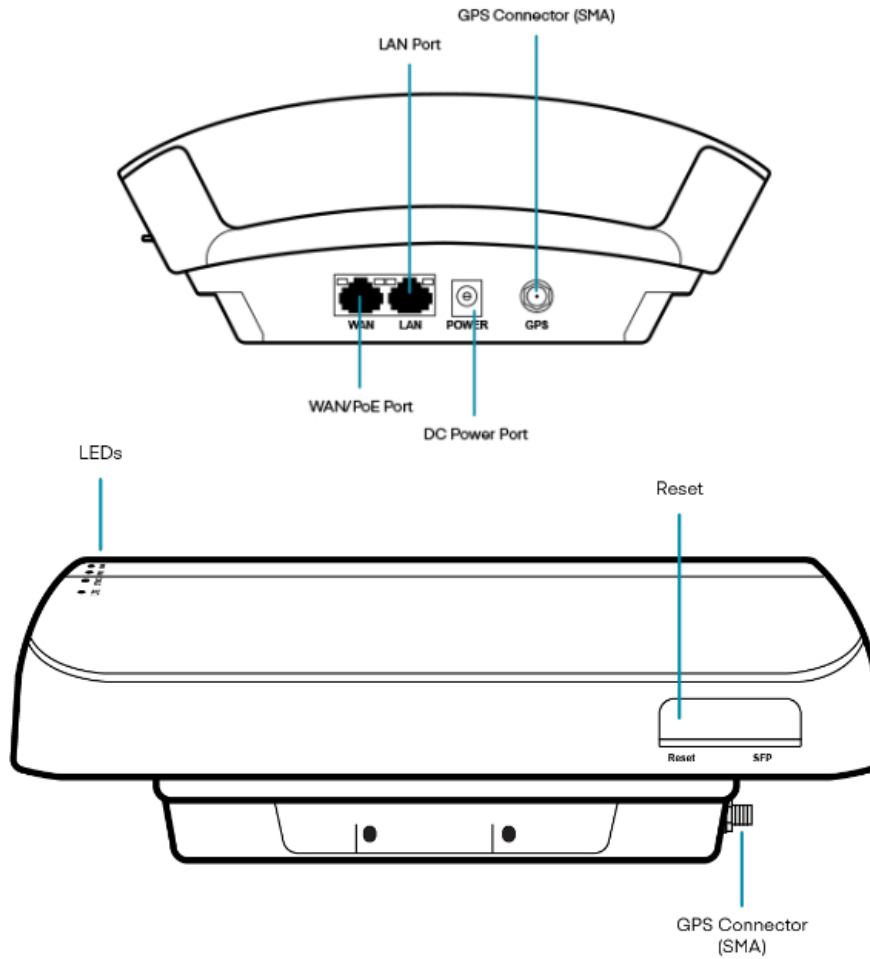
INTERFACES	
Ethernet:	2 x GbE
Cellular:	Inbuilt with internal antenna
GNSS/GPS:	Inbuilt with external antenna support through SMA
ENVIRONMENTAL	
Temperature:	— Operating: -5 °C to 40 °C (23 °F to 104 °F) — Storage: -40 °C to 70 °C (-40 °F to 158 °F)
Humidity:	— Operating: 5% to 90% non-condensing — Storage: 5% to 95% non-condensing
Ingress Protection:	IP30
PHYSICAL	
Size:	265 mm x 210 mm x 80 mm (10.4 in x 8.3 in x 3.1 in)
Weight:	2.2 kg (4.9 lbs)
POWER	
Input:	One of the following: — 12 VDC constant voltage (100-240 VAC input, 12 V/2.5 A DC power adapter cable included) — PoE+ 802.3at Type 2
Maximum Load:	21 W
RADIO SPECIFICATIONS	
Operating Modes:	— Single Carrier mode — Carrier Aggregation mode
Active Clients:	— Single Carrier mode: Up to 64 — Carrier Aggregation mode: Up to 64
Single Carrier Peak Rates (based on 10 MHz BW):	TDD Config 1 — Downlink: 40 Mbps — Uplink: 14 Mbps TDD Config 2 — Downlink: 55 Mbps — Uplink: 7 Mbps

Carrier Aggregation Peak Rates (based on 20 MHz BW):	TDD Config 1
	— Downlink: 80 Mbps
	— Uplink: 28 Mbps
	TDD Config 2
	— Downlink: 110 Mbps
	— Uplink: 14 Mbps
Carrier Aggregation:	Up to 2 CA (downlink only)
MIMO:	2x2
Modulation:	— Downlink: Up to 64 QAM
	— Uplink: Up to 64 QAM
4G/LTE Bands:	B48
Cellular Power:	30 dBm EIRP
Cellular Antennas:	4 internal (omni-directional)
Channel Bandwidth:	10, 20 MHz

Physical Measurements & Features

A2400

210 mm (8.3 in)

265 mm (10.4 in)

80 mm (3.1 in)

WAN   LAN   POWER   GPS

Ordering Guide

NetCloud Private Networks (NCPN) is comprised of a Mobility Gateway, Cellular Access Point(s), and Private SIMs, which all have corresponding NetCloud Service plans. For a complete end-to-end management solution, Cradlepoint routers and adapters should be added to the system. For details on NCPN features, refer to the summary on the NetCloud Service webpage and the detail in the NetCloud Service Features document. For more details and ordering information for the complete NCPN solution, see NetCloud Private Networks Data Sheet.

Step 1: Select NCPN **Cellular Access Point(s)** (selection of one or more indoor/outdoor models)

For details on other available cellular access points, see the following:

— A2405 Indoor Cellular Access Point Data Sheet

— A2415 Outdoor Cellular Access Point Data Sheet

STEPS	COMPONENT	DESCRIPTION
1	Cellular Access Point(s)	— A2400 Indoor Cellular Access Point — A2405 Outdoor Cellular Access Point — A2415 Outdoor Cellular Access Point

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NetCloud Service Plans

REGION	NCPN PACKAGE PLAN	DESCRIPTION†	PART NUMBER
US only:	CBRS Cellular Access Points — Essentials	PROMO — Indoor A2400 CAP with AC power supply and line cord	PA0x-2400NM-CN
	Renewal — Cellular Access Point	Indoor A2400 — 1 year	PA01-NCESS-R

x = 4 or 6 years

†PROMO SKUs (promotional SKUs) are available for a limited time and add an extra year to the standard 3 or 5-year NetCloud Service Plan. Starting 07/01/2024, new subscriptions revert to the standard 3 or 5-year NetCloud Service Plan. All renewals have a 1-year duration.

Support & Warranty

All NCPN hardware and software are sold as part of a NetCloud Service package, which includes:

— Cradlepoint Global Support for the full subscription term.

— Hardware limited lifetime warranty for as long as they have a subscription license to an active NetCloud Service Plan.

More Information

Learn more at cradlepoint.com/netcloud-private-networks

Contact MCA
Cellular Networking
Solutions (CNS) Team

605 Eastowne Drive, Chapel Hill, NC 27514

888.550.8728   cnsinfo@callmc.com   https://lte.callmc.com