

## Data Sheet

# A2405 Outdoor 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.

## Contiguous Indoor/Outdoor Coverage

Cellular Access Points offer significant coverage advantages over Wi-Fi outdoors and public cellular services indoors. The A2405 CAP coverage extends far beyond the limited range of Wi-Fi, providing reliable connectivity for extensive outdoor industrial, agricultural, and operational areas. When used indoors, they surpass public cellular services in coverage and capacity, tailored to the specific requirements of the facility. Unlike public cellular, which can suffer from signal degradation and congestion, NCPN CAPs ensure robust signal penetration and dedicated bandwidth, facilitating advanced applications such as automation, secure communications, and real-time data analytics in environments like warehouses and manufacturing plants.

## 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](#)



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# Cellular Access Point Specifications

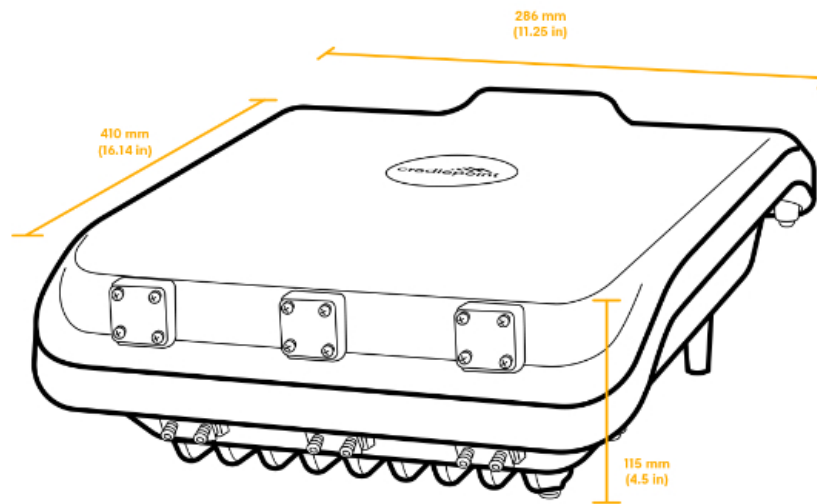
The CAP is a TDD-LTE small cell with internal antennas that provides connectivity to the SIM-authenticated devices in the private network.

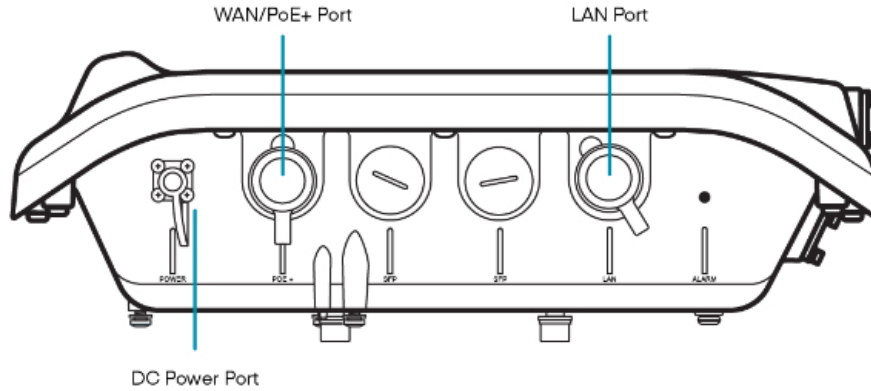
INTERFACES	
<b>Ethernet:</b>	2 x GbE
<b>Cellular:</b>	Inbuilt with internal antenna
<b>GNSS/GPS:</b>	Inbuilt with internal antenna
ENVIRONMENTAL	
<b>Temperature:</b>	<ul style="list-style-type: none"> <li>— Operating: -40 °C to 55 °C (-40 °F to 131 °F)</li> <li>— Storage: -40 °C to 70 °C (-40 °F to 158 °F)</li> </ul>
<b>Humidity:</b>	<ul style="list-style-type: none"> <li>— Operating: 5% to 90% non-condensing</li> <li>— Storage: 5% to 95% non-condensing</li> </ul>
<b>Ingress Protection:</b>	IP65
PHYSICAL	
<b>Size:</b>	410 mm x 286 mm x 115 mm (16.14 in x 11.25 in x 4.5 in)
<b>Weight:</b>	5.5 kg (12.1 lbs)
POWER	
<b>Input:</b>	One of the following: <ul style="list-style-type: none"> <li>— 12 VDC constant voltage</li> <li>— PoE+ 802.3at Type 2 (30 W max PoE+ power injector included)</li> </ul>
<b>Maximum Load:</b>	21 W
RADIO SPECIFICATIONS	
<b>Operating Modes:</b>	<ul style="list-style-type: none"> <li>— Single Carrier mode</li> <li>— Carrier Aggregation mode</li> </ul>
<b>Active Clients:</b>	<ul style="list-style-type: none"> <li>— Single Carrier mode: Up to 64</li> <li>— Carrier Aggregation mode: Up to 64</li> </ul>
<b>Single Carrier Peak Rates (based on 10 MHz BW):</b>	TDD Config 1 <ul style="list-style-type: none"> <li>— Downlink: 40 Mbps</li> <li>— Uplink: 14 Mbps</li> </ul> TDD Config 2 <ul style="list-style-type: none"> <li>— Downlink: 55 Mbps</li> <li>— Uplink: 7 Mbps</li> </ul>

<b>Carrier Aggregation Peak Rates (based on 20 MHz BW):</b>	TDD Config 1
	<ul style="list-style-type: none"> <li>— Downlink: 80 Mbps</li> <li>— Uplink: 28 Mbps</li> </ul>
	TDD Config 2
	<ul style="list-style-type: none"> <li>— Downlink: Up to 110 Mbps</li> <li>— Uplink: Up to 14 Mbps</li> </ul>
<b>Carrier Aggregation:</b>	Up to 2 CA (downlink only)
<b>MIMO:</b>	2x2
<b>Modulation:</b>	— Downlink: Up to 64 QAM
	— Uplink: Up to 64 QAM
<b>4G/LTE Bands:</b>	B48
<b>Cellular Power:</b>	40 dBm EIRP
<b>Cellular Antennas:</b>	4 internal (60 degree semi-directional)
<b>Channel Bandwidth:</b>	10, 20 MHz

## Physical Measurements & Features

### A2405





## 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:

- [A2400 Indoor Cellular Access Point Data Sheet](#)
- [A2415 Outdoor Cellular Access Point Data Sheet](#)

STEPS	COMPONENT	DESCRIPTION
1	Cellular Access Point(s)	<ul style="list-style-type: none"> <li>— A2400 Indoor Cellular Access Point</li> <li>— A2405 Outdoor Cellular Access Point</li> <li>— A2415 Outdoor Cellular Access Point</li> </ul>

## NetCloud Service Plans

REGION	NCPN PACKAGE PLAN	DESCRIPTION <sup>†</sup>	PART NUMBER
<b>US only:</b>	CBRS Cellular Access Points — Essentials	PROMO — Outdoor A2405 CAP with PoE injector and line cord	PB0x-2405NM-CC
	Renewal — Cellular Access Point	Outdoor A2405 — 1 year	PB01-NCESS-R

x = 4 or 6 years

<sup>†</sup>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\*\*](https://www.cradlepoint.com/netcloud-private-networks)