

# Data Sheet **E3000**



The Cradlepoint NetCloud Enterprise Branch Service with E3000 Series Router is suited for fixed branch, healthcare, financial services and retail locations, ideally when combined with need for security services at scale with performance. The all-in-one form factor includes full-featured routing, security, switching with PoE ports and Wi-Fi, making it easy to connect branches to the Internet and critical applications without the need for extra hardware or complicated configurations. And the embedded LTE modern means that connectivity is always available from day 1 without waiting for a wired connection.

#### Notable Features

- Take advantage of embedded Cat 18 LTE modem for fast day-1 or primary connectivity.
- Terminate a primary wired broadband link with LTE as failover for highly resilient hybrid connectivity.
- Enable larger branch locations especially when combined with comprehensive security and application analytic ability.
- Integrate into your existing network with standards-based dynamic routing and VPN tunnel support.
- Define policies through centralized, cloud-based management for easy deployment at scale.
- Add a second cellular modem for dual LTE connectivity.
- Add 5G with modular modem capability.

#### Ideal for Wireless WAN

For an all wireless WAN, the E3000 offers Gigabit-class LTE performance, which can support the throughput and service needs of an enterprise branch with the ability to add a second LTE connection for increased available bandwidth and reliability. For organizations moving to a Wireless WAN, the E3000 offers the ability to pair LTE with a wired link and use LTE as a failover connection or a primary connection.

# 5G Optimized for Upward Compatibility

The E3000 Enterprise Branch Router is 5G-optimized with the ability to act as a controller for a Cradlepoint 5G Wideband Adapter. The unique capability of Cradlepoint to operate the adapter in captive mode means that the two separate, Ethernet-connected appliances can be managed as a single entity. In addition, the E3000 Is designed to embed a future generation modular 5G modem. These two capabilities ensure not only upward compatibility for 5G, but the best investment protection available.

## **Performance**

Stateful Firewall Throughput:

Throughput:

Application Aware Services & Analytics:

IPSec VPN Throughput: Concurrent VPN Tunnels:

Concurrent Sessions (TCP): Typical Client Count:

2 Gbps

1.5 Gbps

1.5 Gbps

400 Mbps

20

130,000

100

Performance testing was conducted based on requirements as defined in RFC2544 using fixed-frame 1518 byte packets. Throughput results reflect uni-directional UDP traffic with less than 1% packet loss as tested with wired connections.

Results do not reflect performance of the cellular wireless operator networks.

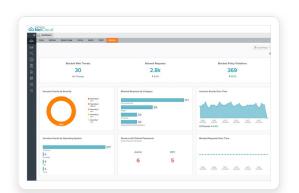


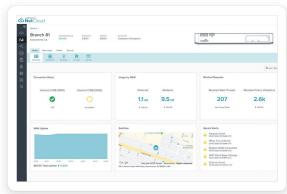
## Key Software Capabilities

Cradlepoint NetCloud Service for the E3000 provides everything needed to unlock the power of LTE at the network edge and connect users and IoT devices to critical applications and services. The NetCloud Service package for the E3000 includes router software for optimizing routing, VPN, SD-WAN, and security capabilities. The cloud capabilities include group policy definition, reports, troubleshooting, and analytics dashboards. The service includes a warranty for as long as there is an active subscription on the router, online training, live and online support, and all software and firmware updates.

#### **Router Services**

The next generation hardware has the processing power to handle demanding router-delivered services, dynamic routing protocols, and application aware traffic steering, supported with our exclusive NetCloud Essentials+Advanced software package.



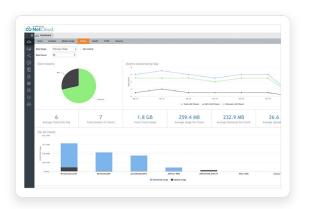


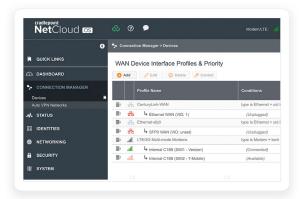
## Security Services

NetCloud Essentials+Advanced packages include security features and options, such as stateful zone-based firewall and threat protection, to optimize the E3000 to meet the evolving security needs of distributed environments.

## Connection Manager

Connection Manager provides the ability to manage all WAN connections types, both wireless and wired, from a single software-defined policy. Our custom-built modem software ensures users establish Wireless WAN connectivity faster while maintaining the highest level of resiliency.





## Cloud Services

NetCloud Manager delivers true zero-touch deployment with the ability to define and deliver policy across entire groups of endpoints. Users can create a cloud-orchestrated hub and spoke VPN network and gain insights and analytics required for rapid troubleshooting and diagnostic workflows.



# **Hardware Specifications**

The following features are delivered through the hardware.

Temperature: Operating: 0 °C to 50 °C (32 °F to 122 °F)

Operating: 10% to 90% Storage: 5% to 95%

**Humidity:** 

Storage: -20 °C to 85 °C (-4 °F to 185 °F)

Embedded C18B Modem  — 4 x SMA cellular antenna connectors	Power			
	Required:	Powered by external DC power supply, 100-240 Vinput, 54 VDC 3.34A output (included)		
Optional dual modem  — Modular MC400 or MC500 Modem	PHYSICAL			
9 x GhE R I45 (I AN/WAN switchable)	Size:	6.3 x 12.6 x 1.7 in (160 x 320 x 44 mm)		
1 x 2.5GbE RJ45 (LAN/WAN switchable)	Weight:	4 lb 6 oz (1.98 kg)		
1 x 10GbE SFP+ (LAN/WAN switchable)  SFP: Finisar FTLF8519P3BNL, FTLF1318P3BTL	CERTIFICATI	CERTIFICATIONS		
<ul> <li>SFP+: Finisar FTLX8574D3BCL, FTLX1475D3BCL, FCBG110SD1Cxx</li> </ul>	Safety:	UL/CUL, CB Scheme, EN60950-1, EN 62368		
4 x 802.3bt PoE Type 3/4 (up to 90W per port)	Materials:	WEEE, RoHS, REACH, California Prop 65		
— 140W total PoE power budget	WI-FI POWE	-FI POWER		
Dual-radio, dual-band, concurrent operation (2.4 GHz and 5 GHz)  — 4x4 MU-MIMO 802.11ax Wi-Fi 6 with DFS	FCC:	2.4 GHz: 26.22 dBm Conducted 5150–5250 MHz: 28.63 dBm Conducted 5725–5850 MHz: 28.65 dBm Conducted		
<ul> <li>1,148 Mbps (2.4 GHz) and 2,400 Mbps (5 GHz)</li> <li>External 4x4 antennas</li> <li>Global Optimized Wi-Fi</li> </ul>	IC:	2.4 GHz: 26.22 dBm Conducted 5150–5250 MHz: 21.70 dBm Conducted 5725–5850 MHz: 28.65 dBm Conducted		
Enterprise, Open	LEDs			
— 802.11k, 802.11r, 802.11v	Refer to the E	3000 Series Enterprise Branch Router Quick Start Gu		
1 x USB 2.0 Type A (Output: 5V, 500mA, 2.5W) 1 x Expansion (Future exp. modules) 1 x RJ45 Console				
1 x SMA GNSS antenna connector				
	9 x GbE RJ45 (LAN/WAN switchable) 1 x 2.5GbE RJ45 (LAN/WAN switchable) 1 x 10GbE SFP+ (LAN/WAN switchable) — SFP: Finisar FTLF8519P3BNL, FTLF1318P3BTL — SFP+: Finisar FTLX8574D3BCL, FTLX1475D3BCL, FCBG110SD1Cxx  4 x 802.3bt PoE Type 3/4 (up to 90W per port) — 140W total PoE power budget  Dual-radio, dual-band, concurrent operation (2.4 GHz and 5 GHz) — 4x4 MU-MIMO 802.11ax Wi-Fi 6 with DFS — 1,148 Mbps (2.4 GHz) and 2,400 Mbps (5 GHz) — External 4x4 antennas — Global Optimized Wi-Fi — WPA/WPA2/WPA3 Personal, WPA2/WPA3 Enterprise, Open — 802.11k, 802.11r, 802.11v  1 x USB 2.0 Type A (Output: 5V, 500mA, 2.5W) 1 x Expansion (Future exp. modules) 1 x RJ45 Console	9 x GbE RJ45 (LAN/WAN switchable)  1 x 2.5GbE RJ45 (LAN/WAN switchable)  1 x 10GbE SFP+ (LAN/WAN switchable)  SFP: Finisar FTLF8519P3BNL, FTLF1318P3BTL  SFP+: Finisar FTLX8574D3BCL, FTLX1475D3BCL, FCBG110SD1Cxx  4 x 802.3bt PoE Type 3/4 (up to 90W per port)  140W total PoE power budget  Dual-radio, dual-band, concurrent operation (2.4 GHz and 5 GHz)  4 x4 MU-MIMO 802.11ax Wi-Fi 6 with DFS  1,148 Mbps (2.4 GHz) and 2,400 Mbps (5 GHz)  External 4x4 antennas  Global Optimized Wi-Fi  WPA/WPA2/WPA3 Personal, WPA2/WPA3 Enterprise, Open  802.11k, 802.11r, 802.11v  1 x USB 2.0 Type A (Output: 5V, 500mA, 2.5W)  1 x Expansion (Future exp. modules)  1 x SMA GNSS antenna connector		



# **Enterprise-Class Modem Specifications**

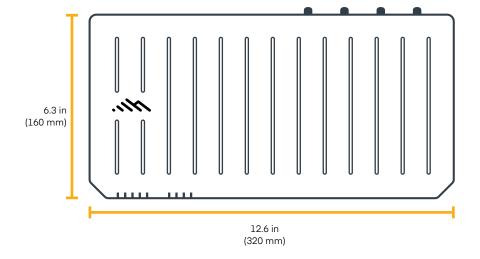
SPECIFICATION	E3000-C18B
Technology:	Cat 18 LTE Advanced Pro (3GPP Rel. 12)
	Dual SIM slots, mini 2FF form factor
	<ul> <li>SIM-based auto-carrier selection</li> </ul>
Fallback:	WCDMA/UMTS/HSPA+
Carrier Aggregation:	Up to 5CA downlink, 2CA uplink
	Refer to modem carrier aggregations article
Peak Downlink Rates:	LTE: 1.2 Gbps
	WCDMA: 42.2 Mbps
Peak Uplink Rates:	LTE 150 Mbps
	WCDMA: 5.76 Mbps
MIMO:	4x4 MIMO
QAM:	256
LTE Bands:	LTE FDD
	— B1, B2(B25), B3, B4(B66), B5(B26/B18/B19), B7, B8, B12, B13, B14, B20, B28, B29, B30, B32, B71
	LTE TDD
	— B38, B39, B40, B41, B42, B43, B46, B48
WCDMA Bands:	B1, B2, B4, B5(B19), B8
Power:	LTE 23 dBm ± 1, DC-HSPA+ 23 dBm ± 1 (typical conducted)
Antennas:	SMA female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4. included)
GNSS/GPS:	Active GNSS
	<ul> <li>— GPS, GLONASS, BeiDou, Galileo</li> </ul>
	<ul> <li>DC voltage bias supplied (typical 3.1V)</li> </ul>
SMS:	Yes
Regulatory:	FCC, IC, CE, RCM
Telecom:	PTCRB, GCF
Required Carrier Certifications*:	AT&T, Verizon, Telstra (Cat 16)
Public Safety Network Certifications:	FirstNet Ready™ (including Band 14)
Private LTE:	Yes, includes FCC Part 96 (CBRS Band 48)

<sup>\*</sup>Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications, to operate on their network. A carrier listed in the approvals section means Cradlepoint completed additional testing and acquired technical approval for that given carrier. Any carrier not listed may not require additional testing or approval beyond telecom industry certifications to operate on their network.

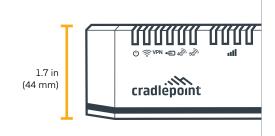


# Hardware

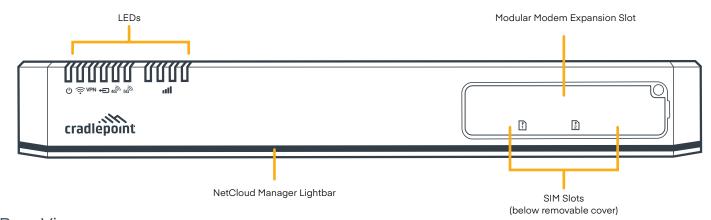
## Physical Measurements



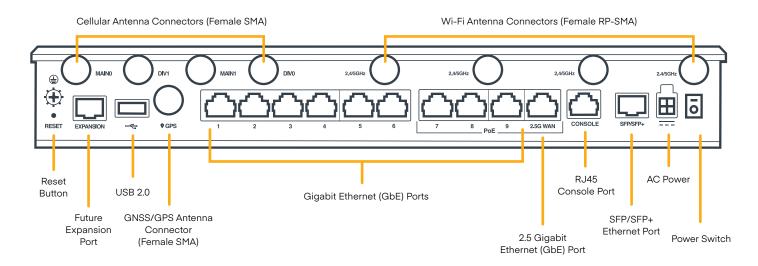




#### Front View



### Rear View





# Ordering Guide

**NetCloud Enterprise Branch Essentials** packages and plans contain all the features and capabilities required for small to mid-sized branch applications. Essentials Packages include 24x7 support (phone support: 24 hour weekdays with emergency response on weekends, web: 24x7, chat: 24x5) and a limited lifetime warranty.

For additional capabilities, a **NetCloud Enterprise Branch Advanced Plan** can be added to the NetCloud Enterprise Branch Essentials Package at any time.

See additional details of what is included in the Essential and Advanced NetCloud software: cradlepoint.com/netcloud-manager

For more details on the E3000 router, included with the NetCloud Enterprise Branch Packages, see below.

## NetCloud Package and Plans

REGION	DESCRIPTION	PART NUMBER
North America:	NetCloud Enterprise Branch Essentials + Advanced Package with E3000-C18B	BFAx-3000C18B-GN
U.S. & Canada	NetCloud Enterprise Branch Essentials Package with E3000-C18B	BF0x-3000C18B-GN
	NetCloud Enterprise Branch Essentials + Advanced Package with E3000-C18B	BFAx-3000C18B-GE
<b>Europe:</b> European Union (EU)	NetCloud Enterprise Branch Essentials Package with E3000-C18B	BF0x-3000C18B-GE
United Kingdom (UK)	NetCloud Enterprise Branch Essentials + Advanced Package with E3000-C18B	BFAx-3000C18B-GU
onited Kingdom (OK)	NetCloud Enterprise Branch Essentials Package with E3000-C18B	BF0x-3000C18B-GU
Asia Pacific:		
Asia-Pacific (AP),	NetCloud Enterprise Branch Essentials + Advanced Package with E3000-C18B	BFAx-3000C18B-GP
Australia, & New	NetCloud Enterprise Branch Essentials Package with E3000-C18B	BF0x-3000C18B-GP
Zealand (NZ)		
	NetCloud Enterprise Branch Advanced Plan	BF0x-NCADV
All Regions:	NetCloud Enterprise Branch Essentials + Advanced Plan Renewal	BFAx-NCEA-R
	NetCloud Enterprise Branch Essentials Plan Renewal	BF0x-NCESS-R

x = 1, 3, or 5 years



# Data Sheet **E3000**



The Cradlepoint NetCloud Enterprise Branch Service with E3000 Series Router is suited for fixed branch, healthcare, financial services and retail locations, ideally when combined with need for security services at scale with performance. The all-in-one form factor includes full-featured routing, security, switching with PoE ports and Wi-Fi, making it easy to connect branches to the Internet and critical applications without the need for extra hardware or complicated configurations. And the embedded LTE modern means that connectivity is always available from day 1 without waiting for a wired connection.

#### Notable Features

- Take advantage of an embedded Gigabit-Class LTE modem for fast day-1 or primary connectivity.
- Terminate a primary wired broadband link with LTE as failover for highly resilient hybrid connectivity.
- Enable larger branch locations especially when combined with comprehensive security and application analytic ability.
- Integrate into your existing network with standards-based dynamic routing and VPN tunnel support.
- Define policies through centralized, cloud-based management for easy deployment at scale.
- Add a second cellular modem for dual LTE connectivity.
- Add 5G with modular modem capability.

#### Ideal for Wireless WAN

For an all wireless WAN, the E3000 offers Gigabit-Class LTE performance, which can support the throughput and service needs of an enterprise branch with the ability to add a second LTE connection for increased available bandwidth and reliability. For organizations moving to a Wireless WAN, the E3000 offers the ability to pair LTE with a wired link and use LTE as a failover connection or a primary connection.

# 5G Optimized for Upward Compatibility

The E3000 Enterprise Branch Router is 5G-optimized with the ability to act as a controller for a Cradlepoint 5G Wideband Adapter. The unique capability of Cradlepoint to operate the adapter in captive mode means that the two separate, Ethernet-connected appliances can be managed as a single entity. In addition, the E3000 Is designed to embed a future generation modular 5G modem. These two capabilities ensure not only upward compatibility for 5G, but the best investment protection available.

#### **Performance**

Stateful Firewall Throughput:

Throughput:

Application Aware Services & Analytics:

IPSec VPN Throughput: Concurrent VPN Tunnels:

Concurrent Sessions (TCP): Typical Client Count:

2 Gbps

1.5 Gbps

1.5 Gbps

400 Mbps

20

130,000

100

Performance testing was conducted based on requirements as defined in RFC2544 using fixed-frame 1518 byte packets. Throughput results reflect uni-directional UDP traffic with less than 1% packet loss as tested with wired connections.

Results do not reflect performance of the cellular wireless operator networks.