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 modem 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:	IPS 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.
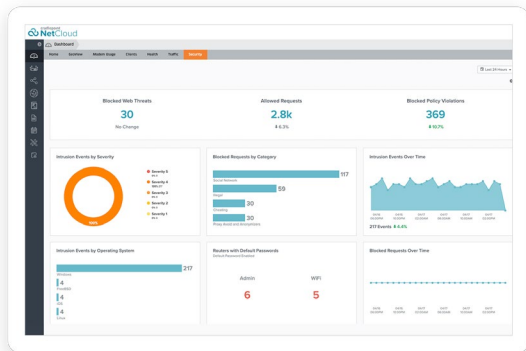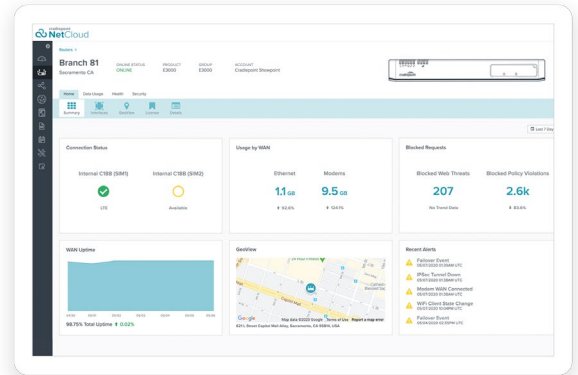

Security Services

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.
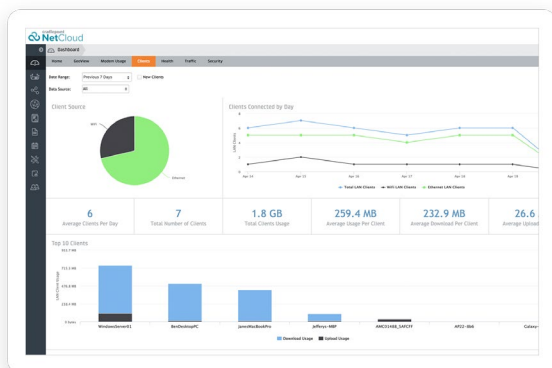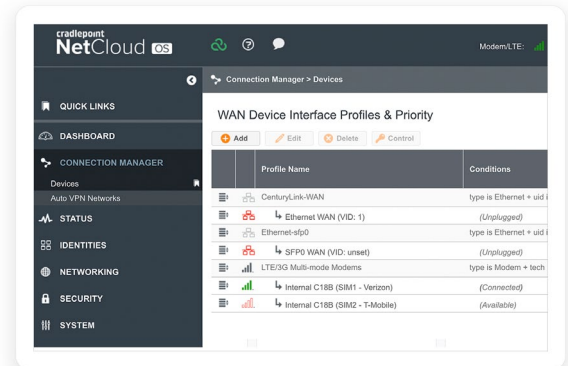
Cloud Services

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.

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Hardware Specifications

The following features are delivered through the hardware.

INTERFACES

Modem:	Embedded C18B Modem — 4 x SMA cellular antenna connectors Optional dual modem — Modular MC400 or MC500 Modem
Ethernet:	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
PoE:	4 x 802.3bt PoE Type 3/4 (up to 90W per port) — 140W total PoE power budget
Wi-Fi:	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
Expansion / Console:	1 x USB 2.0 Type A (Output: 5V, 500mA, 2.5W) 1 x Expansion (Future exp. modules) 1 x RJ45 Console
GNSS/GPS:	1 x SMA GNSS antenna connector

ENVIRONMENTAL

Temperature:	Operating: 0 °C to 50 °C (32 °F to 122 °F) Storage: -20 °C to 85 °C (-4 °F to 185 °F)
Humidity:	Operating: 10% to 90% Storage: 5% to 95%

POWER

Power Required:	Powered by external DC power supply, 100-240 VAC input, 54 VDC 3.34A output (included)

PHYSICAL

Size:	6.3 x 12.6 x 1.7 in (160 x 320 x 44 mm)
Weight:	4 lb 6 oz (1.98 kg)

CERTIFICATIONS

Safety:	UL/CUL, CB Scheme, EN60950-1, EN 62368
Materials:	WEEE, RoHS, REACH, California Prop 65

WI-FI POWER

FCC:	2.4 GHz: 26.22 dBm Conducted 5150–5250 MHz: 28.63 dBm Conducted 5725–5850 MHz: 28.65 dBm Conducted
IC:	2.4 GHz: 26.22 dBm Conducted 5150–5250 MHz: 21.70 dBm Conducted 5725–5850 MHz: 28.65 dBm Conducted

LEDs

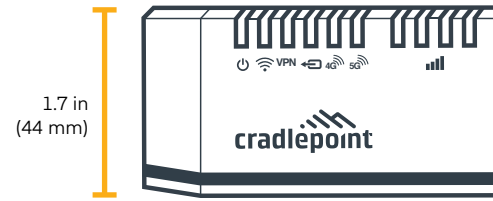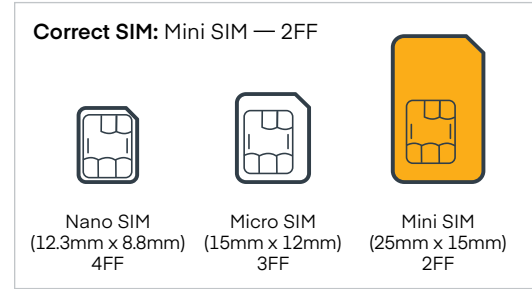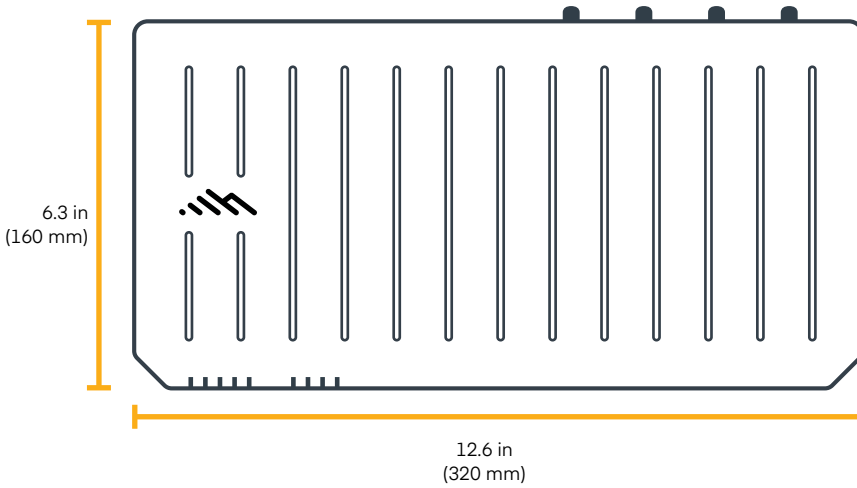Refer to the E3000 Series Enterprise Branch Router Quick Start Guide

Enterprise-Class Modem Specifications

SPECIFICATION	E3000-C18B
Technology:	Cat 18 LTE Advanced Pro (3GPP Rel. 12) — Dual SIM slots, mini 2FF form factor — SIM-based auto-carrier selection
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 — GPS, GLONASS, BeiDou, Galileo — DC voltage bias supplied (typical 3.1V)
SMS:	Yes
Regulatory:	FCC, IC, CE, RCM
Telecom:	PTCRB, GCF
Required Carrier Certifications*:	AT&T, Verizon
Public Safety Network Certifications:	FirstNet Ready™ (including Band 14) *pending
Private LTE:	Yes, includes FCC Part 96 (CBRS Band 48)

*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.

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Hardware

Physical Measurements

Correct SIM: Mini SIM — 2FF

Nano SIM
(12.3mm x 8.8mm)
4FF

Micro SIM
(15mm x 12mm)
3FF

Mini SIM
(25mm x 15mm)
2FF

6.3 in
(160 mm)

12.6 in
(320 mm)

1.7 in
(44 mm)

Front View

LEDs

Modular Modem Expansion Slot

NetCloud Manager Lightbar

SIM Slots
(below removable cover)

Rear View

Cellular Antenna Connectors (Female SMA)

Wi-Fi Antenna Connectors (Female RP-SMA)

MAIN0   DIV1   MAIN1   DIV0   2.4/5GHz   2.4/5GHz   2.4/5GHz   2.4/5GHz

RESET   EXPANSION   ⟲   GPS   1   2   3   4   5   6   7   8   9   2.5G WAN   CONSOLE   SFP/SFP+   ⎓

PoE

Reset
Button

Future
Expansion
Port

USB 2.0

GNSS/GPS Antenna
Connector
(Female SMA)

Gigabit Ethernet (GbE) Ports

2.5 Gigabit
Ethernet (GbE) Port

RJ45
Console Port

SFP/SFP+
Ethernet Port

AC Power

Power Switch

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

x = 1, 3, or 5 years

Accessories

INCLUDED	PART NUMBER
Power Supply, 54 VDC 3.34A, 2M, North America	170811-000
Cellular Antenna, Gray, 600 MHz - 6 GHz, SMA (Qty. 4)	170801-000
Wi-Fi Antenna, Gray, Dual-band 2.4/5 GHz, RPSMA (Qty. 4)	170836-000
E3000-C18B Antenna Alignment Tool	N/A
E3000 Wall Mount Screw Pack	N/A
Rack Mount Brackets	N/A
Rubber feet for Desk Mounting	N/A
OPTIONAL	**PART NUMBER**
Power Supply, 54V, 3.3A, (120W PoE budget), 2x2 large (requires a line cord)	170751-000
Power Supply Line Cord Options: — Line Cord, North America (C14) — Line Cord, European Union (C14) — Line Cord, UK (C14) — Line Cord, Australia (C14)	 170671-001 170671-002 170671-003 170671-004
Enterprise Branch E3000 Cat 18 LTE Advanced Pro Modular Modem Kit — MC400-1200M-B Cat 18 LTE Advanced Pro Modular Modem — E3000 MC400-1200M-B Modem Door with Screw — Power Supply, vehicle, 12V DC, 2x2	BF-MC400-1200M-B N/A N/A 170801-000
Enterprise Branch E3000 Cat 6 LTE Advanced Modular Modem Kit — MC400LP6 Cat 6 LTE Advanced Pro Modular Modem — Cellular Antenna, Gray, 600 MHz - 6 GHz, SMA (Qty. 2)	BF-MC400LP6 N/A 170801-000

Refer to the Cradlepoint MC400 Modular Modem webpage for more information of modular modems

Support & Warranty

The E3000 is only sold as a component of NetCloud Branch Packages.

— NetCloud Packages include support for the full subscription term.

— All Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they have a subscription license to an active NetCloud Service Plan.