



Powering and Connecting
Your World

EdgeReady™ Micro Data Centers

Preconfigured infrastructure for edge computing.

- Order to shipment in three business days
- Unlimited customization options
- 9U to 40U of usable space per rack
- 1.5 kVA to 10 kVA (N+N) backup power per rack
- Rack-mount and external cooling options
- Remote monitoring and control



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Why Edge Computing?

Smart sensors and devices in edge locations like factories, offices, homes, stores and warehouses have become smaller, less expensive and increasingly interconnected, creating an explosion of data. IDC predicts that 150 billion IoT devices will create 90 trillion gigabytes of data by 2025.

Organizations in every sector – including business, manufacturing, telecommunications, healthcare, financial services, retail, transportation, government, energy and education – are racing to analyze and capitalize on IoT data by implementing an edge computing strategy to supplement traditional core/cloud data centers. Gartner predicts that data processed outside core/cloud data centers will grow from 10% currently to 50% by 2022.

Why Micro Data Centers?

When an organization implements an edge computing strategy, it faces the question of how best to relocate the compute component. One option is building new data centers closer to edge locations, but this is extremely expensive and time-consuming. It also doesn't work well unless edge locations are clustered, as in a large city.

For many applications, preconfigured micro data centers that integrate a rack enclosure, backup power, remote management and cooling options are proving to be more feasible and cost-effective. They provide several benefits:

- Reduction in site-related costs
- Quicker deployment time
- Standardized configurations

Edge computing solves three problems for these organizations:

NETWORK LATENCY causes poor performance or total failure for time-sensitive or interactive applications that require near-immediate response times. Edge computing requires fewer network hops to minimize latency.

BANDWIDTH COSTS increase significantly when continuously shuttling large volumes of data from edge to core/cloud and back again. Edge computing reduces bandwidth requirements.

SYSTEM AVAILABILITY is at risk when a distant core/cloud data center is required for data processing. If the Internet connection goes down, business grinds to a halt. Edge computing reduces reliance on that connection.

Micro data centers conveniently and cost-effectively enable edge computing in locations where dedicated IT space is unavailable and impractical or cost-prohibitive to retrofit.

- Sites that require edge computing, like branch offices, banks, retail locations, cell towers and factories, often lack space and on-site IT staff, so micro data centers are designed to save space and require minimal IT support.
- Because of the critical applications served by edge computing, micro data centers also need to provide a level of system availability and security comparable to a core/cloud data center.
- The ability to customize and then standardize a solution is also key, as it makes the micro data center more cost-effective, more reliable and leads to quick, easy, repeatable deployments and service.



EdgeReady™ Micro Data Centers — The Edge Made Easy™

Tripp Lite's EdgeReady™ micro data centers are the industry's first and only micro data centers that ship three business days after the receipt of an order. Tripp Lite stocks more micro data center configurations than any other manufacturer, ships them faster and offers the broadest selection of product options for customization, fully assembled and tested. 40 base configurations are available for immediate order, or our solution team can customize every aspect of each base configuration to match specific applications. We can assemble, test and ship customized micro data centers in as little as five business days.

Benefits of EdgeReady™ Micro Data Centers

- Validated configurations simplify ordering, prevent design errors and reduce field costs
- Assembled and tested units enable rapid deployment of turnkey micro data centers
- Experienced solution experts design, assemble and test configurations in a controlled environment
- Torqued fittings and reinforced shock pallets support safe and stable shipment and re-shipment
- 40 different stocked base configurations with unlimited options for customization provide dynamic form factors to satisfy the business and technology requirements of diverse edge deployment strategies



Base Configurations Ship in Three Days

EdgeReady™ micro data center base configurations integrate a floor-standing or wall-mount rack enclosure, UPS system, network management card, network management software for up to 250 devices, environmental/security sensor, power distribution unit (PDU) and passive cooling. (See next page for active cooling and other customization options.) They ship three business days after receipt of order, either as assembled and tested units or validated kits ready for on-site assembly of components.

Base Configuration Range



Voltage	Form Factor	Usable Rack Space	Output Power Capacity	UPS Type	Assembled or Kit?	Common Applications
120V	Wall-Mount	9U to 15U	1.5 kVA to 3 kVA	Line-Interactive	Kit Only	A B D E F G J
120V	Compact Floor-Standing	15U to 21U	1.5 kVA to 3 kVA	Line-Interactive	Either	A B C E F G J
120V	Quiet Floor-Standing	15U to 21U	1.5 kVA to 3 kVA	Line-Interactive	Either	A B C E F G I J
120V	Full-Size Floor-Standing	38U to 40U	3 kVA to 3 kVA (N+N)	On-Line	Either	A B C E F G H J
208/240V	Full-Size Floor-Standing	30U to 38U	6 kVA to 10 kVA (N+N)	On-Line	Either	A B C E F G H J
230V	Wall-Mount	9U to 15U	1.5 kVA to 3 kVA	Line-Interactive	Kit Only	A B D E F G J
230V	Compact Floor-Standing	15U to 21U	1.5 kVA to 3 kVA	Line-Interactive	Either	A B C E F G J
230V	Full-Size Floor-Standing	30U to 40U	3 kVA to 10 kVA (N+N)	On-Line	Either	A B C E F G H J

Common Applications	
A Reduce Network Latency	F Support High Availability
B Simplify Configuration	G Protect Important Data
C Accelerate Installation	H Protect Mission-Critical Data
D Minimize Space Requirements	I Reduce Acoustic Noise
E Standardize Deployments	J Minimize Support Requirements

Customization is Unlimited

Our solutions team is standing by to help you tailor your EdgeReady™ micro data center to match the business and technology requirements of your edge deployment strategy. We ship custom solutions in as little as five business days, assembled and tested.

We can help you customize your EdgeReady™ micro data center in several ways:

- Quick and easy customization via stocked add-on accessories for the base configurations
- Upgrades to included components of base configurations with stocked alternatives
- Customization of individual components like racks, PDUs and cables (increases lead time)



Customization Options

Modify Base Components	
Rack Enclosures	Change rack spaces, width, depth, door type, caster type, color, weight capacity, NEMA rating, seismic rating, shelving, compartments, integrated cable management. Tripp Lite stocks 100+ options and can completely customize racks to match customer specifications. (Replaces standard rack.)
UPS Systems	Change capacity, upgrade to on-line operation or N+N redundancy for increased availability, downgrade to line-interactive operation for reduced cost, upgrade to lithium-ion batteries to increase battery lifespan, add hot-swappable power module capability. Tripp Lite stocks 100+ rack-mount options and offers UPS customization. (Replaces standard UPS.)
PDUs	Upgrade to a switched PDU for increased power manageability and outlet control, change outlet configurations, change horizontal/vertical form factor, add automatic transfer switching. Tripp Lite stocks 100+ single-phase options and offers PDU customization. (Replaces standard PDU.)
Add Optional Accessories	
Active Cooling	Add in-rack cooling up to 2 kW or external cooling up to 9.7 kW. All-in-one units are self-contained, do not require piping or drainage, plug into standard outlets, operate unattended and support remote management.
Extended Runtime	Add external battery packs to increase backup runtime. Micro data centers provide battery backup for 8 to 15 minutes at 50% load with internal batteries, depending on model. External battery packs can extend backup runtime to hours. Tripp Lite stocks 24 rack-mount options.
KVM Switches	Add rack-mount console KVMs with a built-in LCD monitor, NIAP-certified secure KVMs and IP remote access KVMs with up to 64 ports. Tripp Lite stocks 80+ KVM options.
Console Servers	Add up to 48 serial ports in 1U to access devices securely over the primary network or fail-safe alternative. Connectivity options include dual Ethernet, Wi-Fi, analog modem and cellular modem. Tripp Lite stocks 12 options.
Security	In addition to the locking steel enclosure that comes standard with each micro data center, add remote door sensors to detect unauthorized intrusion. Standard key-locking door handles can also be replaced with combination handles, and additional options are available through rack customization.
Airflow Management	Add blanking panels and brush strips with cable access to cover unused rack spaces and prevent air recirculation for more efficient and effective cooling. Add overhead thermal ducts to help isolate and remove exhaust air.
Cable Management	Add horizontal, vertical, internal or external cable managers. Tripp Lite stocks 40+ options.
Power Cords	Add length-optimized or color-coded power cords to connect IT equipment to PDUs. Tripp Lite stocks 250+ options.
Network Cables	Add copper or fiber network cables to interconnect IT equipment. Tripp Lite stocks 1000+ options and offers complete network cable customization.
Patch Panels	Add copper and/or fiber patch panels with up to 60 ports in 1U. Tripp Lite stocks 60+ options.
Additional Options	Tripp Lite also makes rack-mountable surge protectors, power conditioners, network switches, audio/video solutions and device chargers, as well as a full line of 3-phase power solutions up to 400 kVA.

Full-Size Floor-Standing Micro Data Center

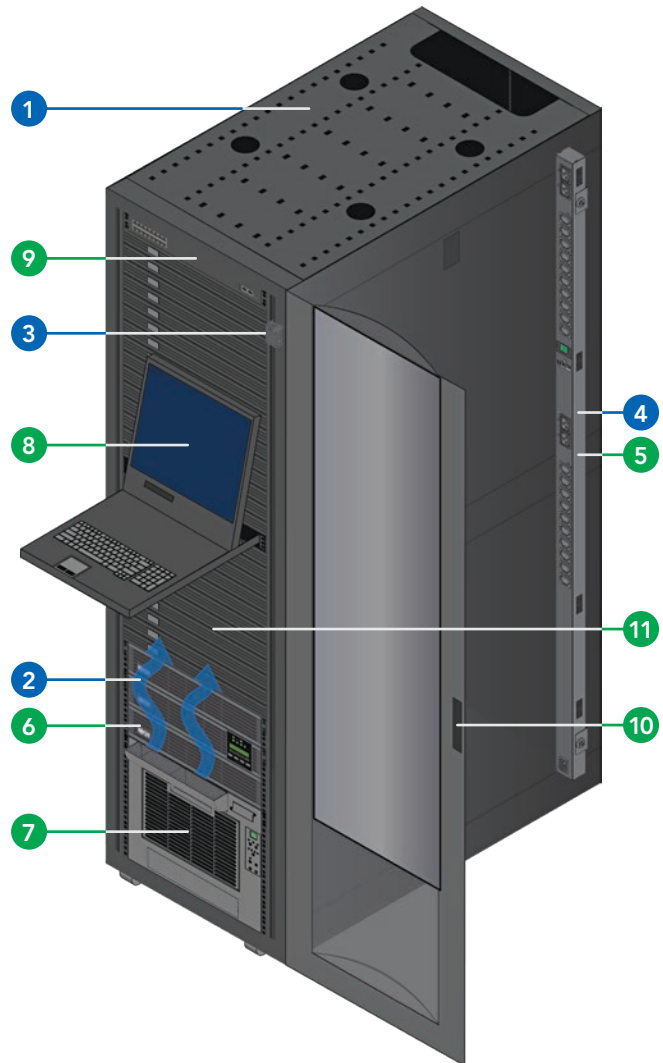
Hardware Included with Base Configuration

- 1 42U RACK ENCLOSURE** provides locking steel cabinet, 3000 lb. total weight capacity and reinforced pallet for stable shipment and reshipment of assembled unit.
- 2 6 KVA ON-LINE UPS SYSTEM** provides expandable battery backup, VFI operation, auto bypass, pure sine wave output and zero transfer time (N+N redundancy also available).
NETWORK MANAGEMENT CARD provides remote monitoring and control with automated threshold alerts.
- 3 ENVIRONMENTAL SENSOR** enables remote temperature, humidity and digital input monitoring.
- 4 METERED PDU** provides digital current metering and numerous outlets for IT equipment.

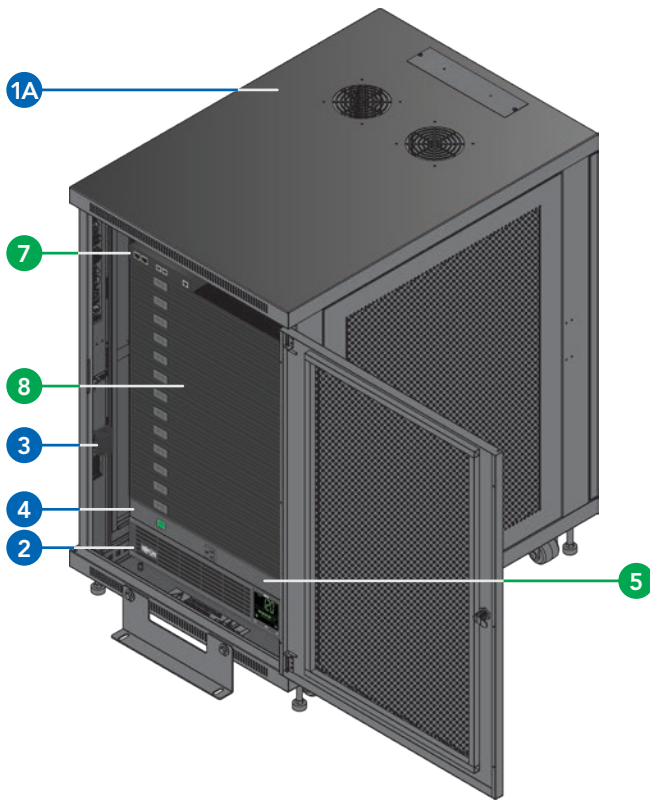
Optional Accessories for Custom Configuration

- 5 SWITCHED PDU** replaces metered PDU to add network management, automated threshold alerts and remote individual outlet control; vertical (0U) installation.
- 6 EXTERNAL BATTERY PACK** extends runtime from 11 min. with internal batteries to 51 min. at 50% load.
- 7 RACK-MOUNTED AIR CONDITIONING UNIT** provides 2 kW of close-coupled cooling, plugs into a standard outlet, operates unattended, restarts automatically after outages and supports remote management.
- 8 CONSOLE KVM SWITCH** with 16 ports includes a folding LCD screen and built-in IP remote access.
- 9 CONSOLE SERVER** provides 8 serial ports, 4 USB ports, dual Ethernet, embedded cryptography and built-in PSTN modem for fail-safe remote device access if the primary network connection is lost.
- 10 DOOR SENSOR KIT** monitors front/rear doors for remote intrusion detection and alerts; replacement door handles provide combination locks in addition to keyed locks.
- 11 AIRFLOW MANAGEMENT ACCESSORIES** (blanking panels shown) prevent hot air recirculation for efficient cooling.

ADDITIONAL OPTIONS NOT SHOWN: Horizontal, vertical and external cable managers; copper and/or fiber network cables and power cords for IT equipment; copper and/or fiber patch panels, including modular patch panels; additional environmental sensors to monitor temperature at multiple locations.



Compact Micro Data Center



Hardware Included with Base Configurations

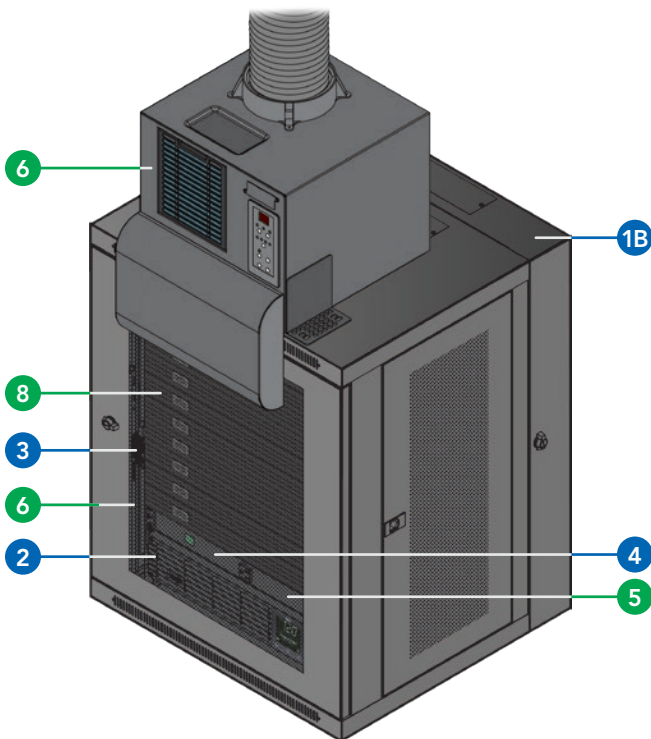
- 1A 24U COMPACT RACK ENCLOSURE** provides locking steel cabinet, 1000 lb. total weight capacity and reinforced pallet for stable shipment and reshipment of assembled unit.
- 1B 15U WALL-MOUNT RACK ENCLOSURE** provides locking steel cabinet and 200 lb. total weight capacity.
(Note: Wall-mount micro data centers only ship as kits because you must mount the cabinet to the wall before installing equipment.)
- 2 LINE-INTERACTIVE UPS SYSTEM** (3 kVA in compact floor-standing cabinet; 1.5 kVA in wall-mount cabinet) provides battery backup, automatic voltage regulation and sine wave output. **NETWORK MANAGEMENT CARD** provides remote monitoring and control with automated threshold alerts.
- 3 ENVIRONMENTAL SENSOR** enables remote temperature, humidity and digital input monitoring.
- 4 METERED PDU** provides digital current metering and numerous outlets for IT equipment.

Optional Accessories for Custom Configurations

- 5 SWITCHED PDU** replaces metered PDU to add network management, automated threshold alerts and remote individual outlet control.
- 6 AIR CONDITIONING UNIT** provides 0.6 kW of close-coupled cooling.
- 7 CONSOLE SERVER** provides serial and USB ports, dual Ethernet, embedded cryptography and PSTN modem support for fail-safe remote device access if the primary network connection is lost.
- 8 AIRFLOW MANAGEMENT ACCESSORIES** (blanking panels shown) prevent hot air recirculation for efficient cooling.

ADDITIONAL OPTIONS NOT SHOWN: Horizontal, vertical and external cable managers; copper and/or fiber network cables and power cords for IT equipment; copper and/or fiber patch panels, including modular patch panels; additional environmental sensors to monitor temperature at multiple locations.

Wall-Mount Micro Data Center



Choose a Partner that Knows Critical Infrastructure

Micro data centers are smaller than traditional data centers, but they are just as critical to the success of your organization. When you are protecting critical systems, your choice of partner is critical too.

Tripp Lite offers you an attractive combination of reliability, value and service:

PROVEN PRODUCT RELIABILITY

Tested to strict quality, compatibility and safety standards, our products are also backed by years of field-proven reliability, protecting the world's largest companies and data centers from damage, downtime and data loss.

INDUSTRY-LEADING VALUE

Cost efficiency is a key element of every Tripp Lite product. Combining multiple products, our micro data centers leverage our unique manufacturing efficiencies to provide a superior balance of features, quality and competitive cost.

RESPONSIVE SERVICE FROM EXPERIENCED SOLUTION EXPERTS

Tripp Lite's Chicago-based, in-house application engineers have helped customers build and deploy thousands of critical solutions just like our micro data centers. We are available by phone, email or chat to provide quick answers and fully customized solutions. Our website also provides user-friendly product finders, detailed specifications and downloadable documentation around the clock.



“Tripp Lite’s micro data centers were cost-effective, easy to install and provided the critical infrastructure we needed for our pumping operation servers. We haven’t had a problem since installation more than two years ago, so we have a lot of confidence in Tripp Lite. We are currently working on a second phase with their team.”

– IT Director, South American Energy Company

“As part of a recent acquisition, we needed to install servers and network video recorders at multiple branches in order to provide responsive service and meet regulatory requirements. Tripp Lite micro data centers provided high-availability power and cooling to protect our critical data. We were also able to install quickly in improvised spaces and manage remotely from a unified interface.”

– Facilities Manager, Multinational Bank



Pulse Supply
909 Ridgebrook Road, Sparks, Maryland 21152, USA
TEL : +1-410-583-1701 FAX : +1-410-583-1704
E-mail: sales@pulsesupply.com
<https://www.pulsesupply.com/tripp-lite>



Manufacturing Excellence.

