



Vertiv™ SmartCabinet™

Intelligent, Integrated Containment
for IT Infrastructure



The Next Generation Edge Solution for Digital Transformation

About Vertiv

Vertiv brings together hardware, software, analytics and ongoing services to ensure its customers' vital applications run continuously, perform optimally and grow with their business needs. Vertiv solves the most important challenges faced by today's data centers, communication networks and commercial and industrial facilities with a portfolio of power, cooling, and IT infrastructure solutions and services that extends from the cloud to the edge of the network. Headquartered in Columbus, Ohio, USA, Vertiv employs around 20,000 people and does business in more than 130 countries. For more information, and for the latest news and content from Vertiv, visit [Vertiv.com](https://www.vertiv.com).

Vertiv.com

OUR PURPOSE

We believe there is a better way to meet the world's accelerating demand for data - one driven by passion and innovation.



GLOBAL PRESENCE

Manufacturing Locations: **23**
Service Centers: **290+**
Service Field Engineers: **3,300+**
Technical Support Personnel: **250+**
Customer Experience Centers: **14**

AMERICAS

Manufacturing Locations: **10**
Service Centers: **170+**
Service Field Engineers: **1,500+**
Technical Support Personnel: **105+**
Customer Experience Centers: **5**

EUROPE, MIDDLE EAST AND AFRICA

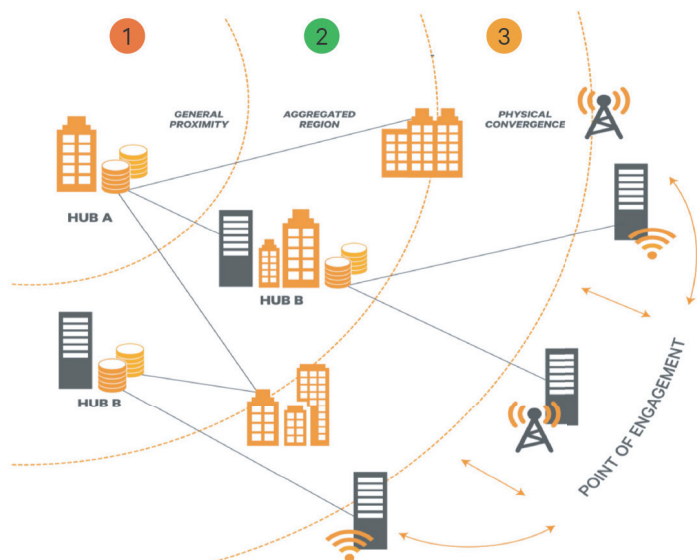
Manufacturing Locations: **9**
Service Centers: **65+**
Service Field Engineers: **620+**
Technical Support Personnel: **75+**
Customer Experience Centers: **5**

ASIA PACIFIC AND INDIA

Manufacturing Locations: **4**
Service Centers: **55+**
Service Field Engineers: **1,190+**
Technical Support Personnel: **70+**
Customer Experience Centers: **4**

THE DIGITAL WORLD IS CHANGING. HOW WE LIVE AND DO BUSINESS AND VICE VERSA

- 1 Traditional**
 - Cloud / Data Center
- 2 Local**
 - Aggregation Sites
 - Metro Data centers
- 3 Edge**
 - Rooms / Building

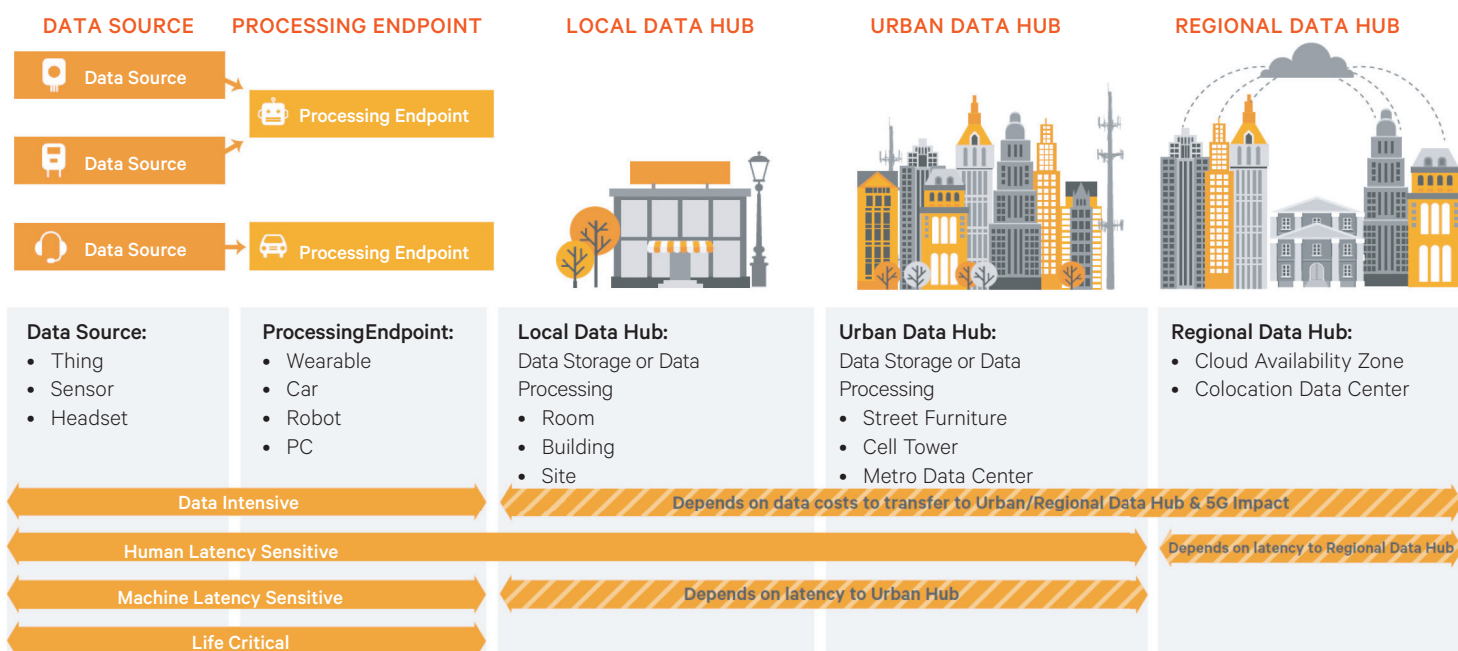


Traditionally, data was generated at the Core and consumed at the Edge.

This model is now changing, with the large and growing number of smart devices and sensors generating a massive amount of information at the Edge.

Just a fraction of the content created at the Edge will be sent to the Core. Most of it will be processed and filtered at Edge sites.

What will enable this major shift?



Vertiv researched and analyzed the technology drivers and requirements of Edge use-cases across a wide range of business segments and verticals. The use-cases were each assigned to one of four archetypes that best characterize its intent and challenges:

- Data Intensive
- Human Latency
- M2M Latency
- Life Critical

KEY CONSIDERATION FOR PREPARING EDGE SPACES



High-efficiency, flexible micro data centers

To support edge deployments, traditional infrastructure approaches need to be revisited. From brick-and-mortar designs, infrastructure deployments will shift to micro data centers which are fully integrated and easily deployable that can be virtually deployed anywhere. These micro data centers provide compute, storage and access to reduce latency and support 5G and IoT applications.



Provision for speed and scalability for future growth

Owing to the expected spike in data brought by 5G applications, the challenge is finding out the scale needed to support these applications. Hence, infrastructure at the edge must be designed for flexibility and scalability. Rack to row-based micro data centers can be scaled up easily depending on the demands and with little floor space required.



Location, location, location

One of the challenges faced by telecom operators is identifying where to setup these edge locations. Because of the capital investment it entails, setting up a new data center may not look attractive for some. But for others, a novel approach would be to set up micro data centers at the base of their cell towers to save on cost and also to optimize on infrastructure investment.

Some would also opt to set up micro data centers in high traffic areas as these are closer to users and would address any latency issues.



Increased intelligence for remote management across multiple sites

As new edge locations are expected to rapidly materialize with 5G, the ability to remotely monitor and manage these locations will become critical because the sheer quantity of locations will be difficult to manage through regular human visits. Data center infrastructure management (DCIM) will be critical to the success of 5G networks at the edge.

Enter SmartCabinet™, a pre-configured, self-contained solution that offers the efficiency, economy, interoperability, and control to implement an exceptional infrastructure strategy.

- **Economical** - Reduces implementation costs compared to conventional solutions
- **Simplified** - Maximize use of existing infrastructure and gets up-and-running in a matter of weeks
- **Controllable** - Enforce add/change policies, speeds IT administration request response times significantly

SmartCabinet™
Split 600/800mm



SmartCabinet™
Premium

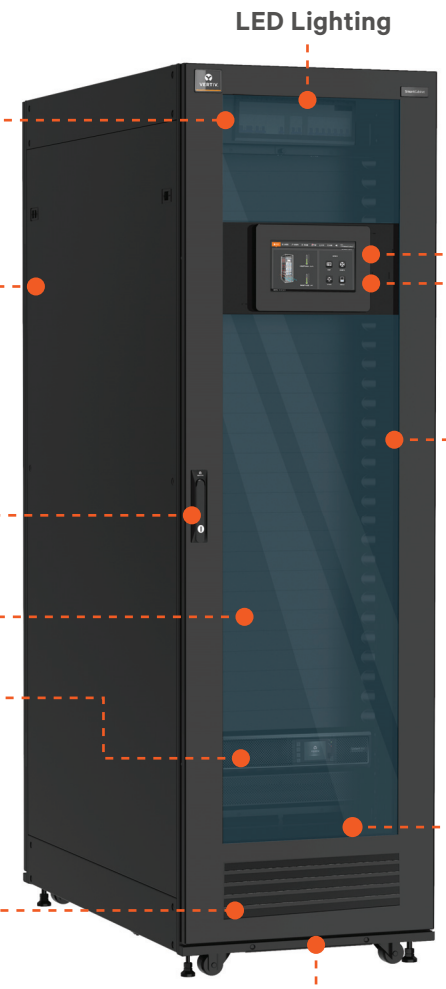


SmartCabinet™ ECO



The Next Generation Edge Solution for Digital Transformation

SmartCabinet™ - Split



LED Lighting

Power Management Unit (PMU)
Built-in PMU provides power management and distribution to UPS, cooling unit and rack PDU. Comes with surge protection device.

Rack Power Distribution Unit (rPDU)
Features branch level metering and remote on/off control of individual receptacles.

Smart Lock
Provides secure door access via ID card, web interface and key.

Blanking Panel

UPS & Internal Battery
On-line double conversion UPS with internal battery module ensures clean power feeding to critical IT equipment. Power Factor: 1.0.

Emergency Fan
Activates automatically in the event of overheating or cooling unit failure.

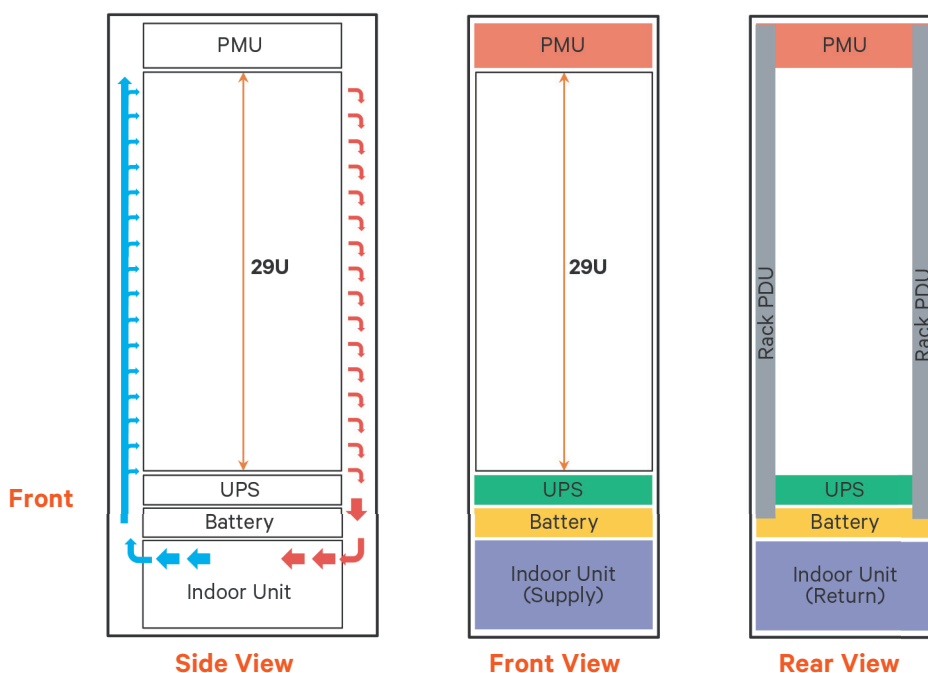
LCD Touchscreen Panel
User-friendly display enables easy access to power, cooling, environment and security information.

Centralized Management & Monitoring
Enables central management of all intelligent components within the rack.

Environmental Sensor
Report critical environmental information and alarm notification. Ensure IT equipment is kept in desired condition.

Cooling Unit
Features cooling modulation, enables cooling on demand and quick adapt to load fluctuation due to focused area within the system.

Water Leak Detector



SmartCabinet™ Premium

Cooling Unit

Features cooling modulation, enables cooling on demand and quick adapt to load fluctuation due to focused area within the system.

Smart Lock

Provides secure door access via ID card, web interface and key.

Power Management Block (PMB)

Built-in power management and distribution to UPS, cooling unit and rack PDU. Comes with surge protection device.

UPS & Internal Battery

On-line double conversion UPS with internal battery module ensures clean power feeding to critical IT equipment. Power Factor: 1.0.

LED Lighting

LCD Touchscreen Panel

User-friendly display enables easy access to power, cooling, environment and security information.

Centralized Management & Monitoring

Enables central management of all intelligent components within the rack.

Environmental Sensor

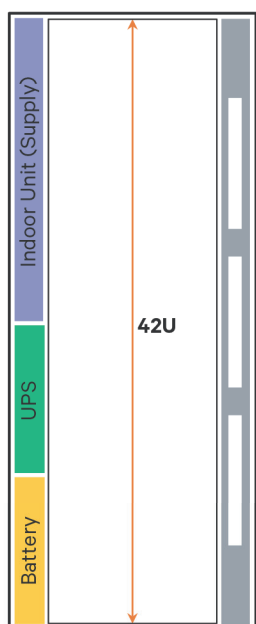
Report critical environmental information and alarm notification. Ensure IT equipment is kept in desired condition.

Blanking Panel

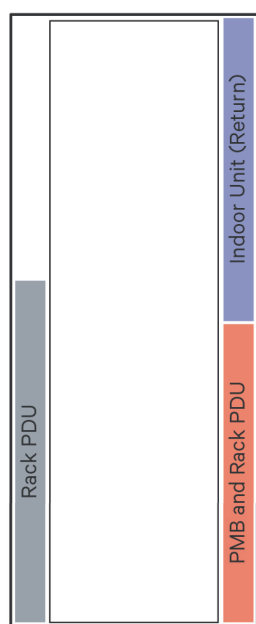
Emergency Fan

Activates automatically in the event of overheating or cooling unit failure.

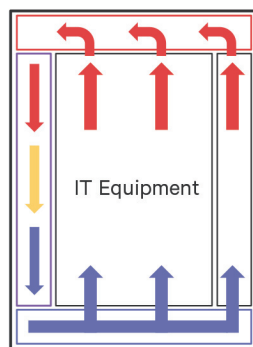
Water Leak Detector



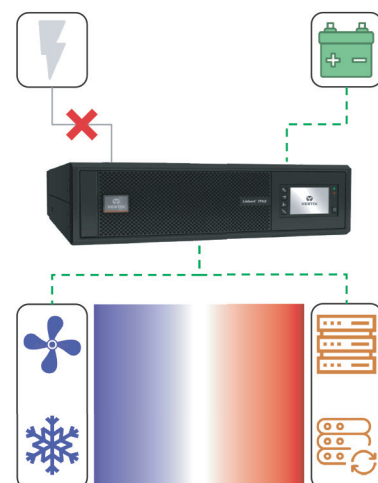
Front View



Rear View



Top View



The Next Generation Edge Solution for Digital Transformation

SmartCabinet™ ECO

ECO Fan Module

Enables ECO mode and activates intelligently. Provides emergency ventilation in the event of overheating or cooling unit failure.

Power Management Unit (PMU)

Built-in PMU provides power management and distribution to UPS, cooling unit and rack PDU. Comes with surge protection device.

Rack Power Distribution Unit (rPDU)

Features branch level metering and remote on/off control of individual receptacles.

Blanking Panel

Smart Lock

Provides secure door access via ID card, web interface and key.

UPS & Internal Battery

On-line double conversion UPS with internal battery module ensures clean power feeding to critical IT equipment. Power Factor: 1.0.

LED Lighting

LCD Touchscreen Panel

User-friendly display enables easy access to power, cooling, environment and security information.

Centralized Management & Monitoring

Enables central management of all intelligent components within the rack.

Environmental Sensor

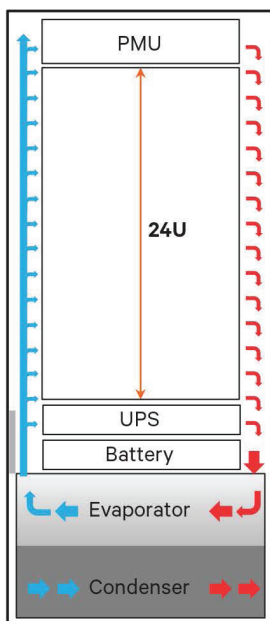
Report critical environmental information and alarm notification. Ensure IT equipment is kept in desired condition.

Air Inlet

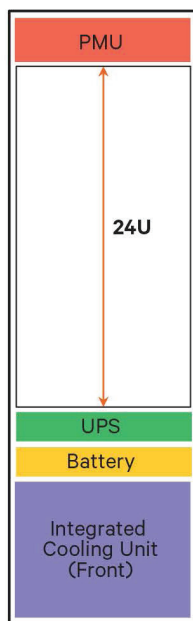
Cooling Unit

Integrate cooling coil and condenser within the cooling unit for complete heat exchange. Provide variable cooling capacity directly to IT equipment.

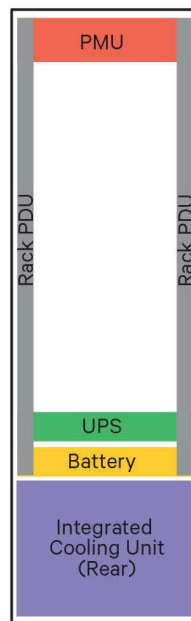
Water Leak Detector



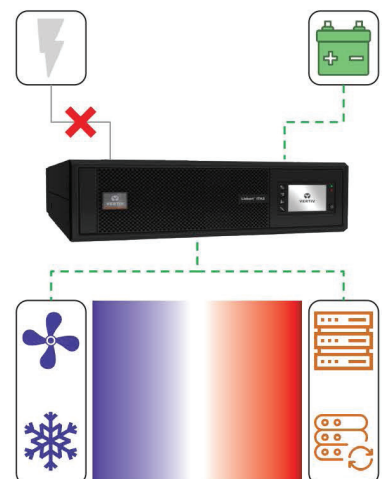
Side View



Front View



Rear View



TECHNICAL SPECIFICATION

Components	SmartCabinet™ - Split	SmartCabinet™ Premium	SmartCabinet™ ECO
UPS Model	Liebert ITA2		
UPS Capacity	5 kVA	6 kVA	
UPS Power Factor	Unity		
System Capacity (IT Capacity)	3000 W		
Rack PDU Type	Switched, 32A input, 18 x C13 + 6 x C19, 2pcs	Switched, 16A input, 14 x C13 + 2 x C19, 1 pc (PMB) 16A input, 12 x C13 + 4 x C19, 1 pc (PDU)	Switched, 16A input, 12 x C13 + 4 x C19, 2pcs
Rack PDU Form Factor	OU		
Cooling Type	Split		Self-contained w / ECO Mode
Cooling Capacity	900 W to 3500 W		
Refrigerant	R410a		
Supplementary Cooling	Emergency Fan		
Cooling High Availability	None	UPS Backup Cooling	
Rack Dimension (H x W x D) (mm)	2000 x 600 x 1200 (mm) 2000 x 800 x 1200 (mm)	2000 x 800 x 1100 (mm)	2150 x 600 x 1200 (mm) incl. top fan module
Door Lock Type	Smart Lock (Tempered Glass Door)		Smart Lock (Tempered Glass Door) Mechanical Lock (Steel Door)
Ingress Protection	IP5X		IP2X
Rack Useable IT Space	29U	42U	24U
Centralized Monitoring	In-built Infrastructure Monitoring		
Monitoring Interface	9-inch LCD Touchscreen IP-based Web Interface Mobile Apps		

