



Vertiv™ SmartAisle™ 2

Empowering Data Center Infrastructure



WE ARE VERTIV

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 facing 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.

OUR PRESENCE

GLOBAL PRESENCE

Manuf. and Assembly Locations **19** Service Centers **270+**
Service Field Engineers **2,700+**
Technical Support/Response **330+**
Customer Experience Centers/Labs **17**



US AND CANADA

Manuf. and Assembly Locations **7**
Service Centers **120+**
Service Field Engineers **850+**
Technical Support/Response **120+**
Customer Experience Centers/Labs **4**

LATIN AMERICA

Manuf. and Assembly Locations **1**
Service Centers **20+**
Service Field Engineers **300+**
Technical Support/Response **25+**
Customer Experience Centers/Labs **2**

EUROPE, MIDDLE EAST AND AFRICA

Manuf. and Assembly Locations **5**
Service Centers **70+**
Service Field Engineers **600+**
Technical Support/Response **95+**
Customer Experience Centers/Labs **6**

ASIA PACIFIC

Manuf. and Assembly Locations **6**
Service Centers **60+**
Service Field Engineers **950+**
Technical Support/Response **90+**
Customer Experience Centers/Labs **5**

Deploy a data center without compromise

Balancing data center objectives for capacity, space utilization, availability & efficiency are challenging tasks in traditional data center. Faced with these challenges, IT and data center managers increasingly want infrastructure strategies that are alternative to conventional approaches. As a global leader in critical infrastructure, Vertiv™ has performed significant research into alternative approaches.

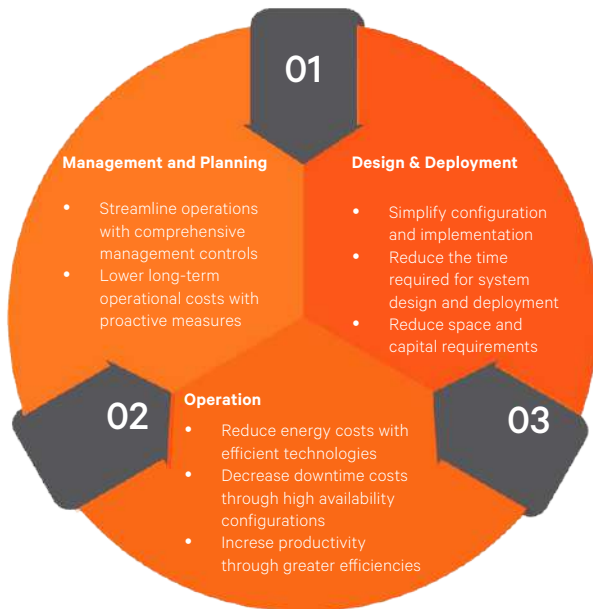
A close analysis of the market reveals four main archetypes for edge applications where 'smart approach' towards data center build up works out. There are certain application arenas where micro & medium data center like infrastructure is necessary. To make these alternative approach smarter, Aisle containment architecture with all flexibility, availability, ultimate efficiency & remote management is the one stop solution.

The four archetypes are as follows:

- Data Intensive
- Machine latency sensitive
- Human latency sensitive
- Life Critical

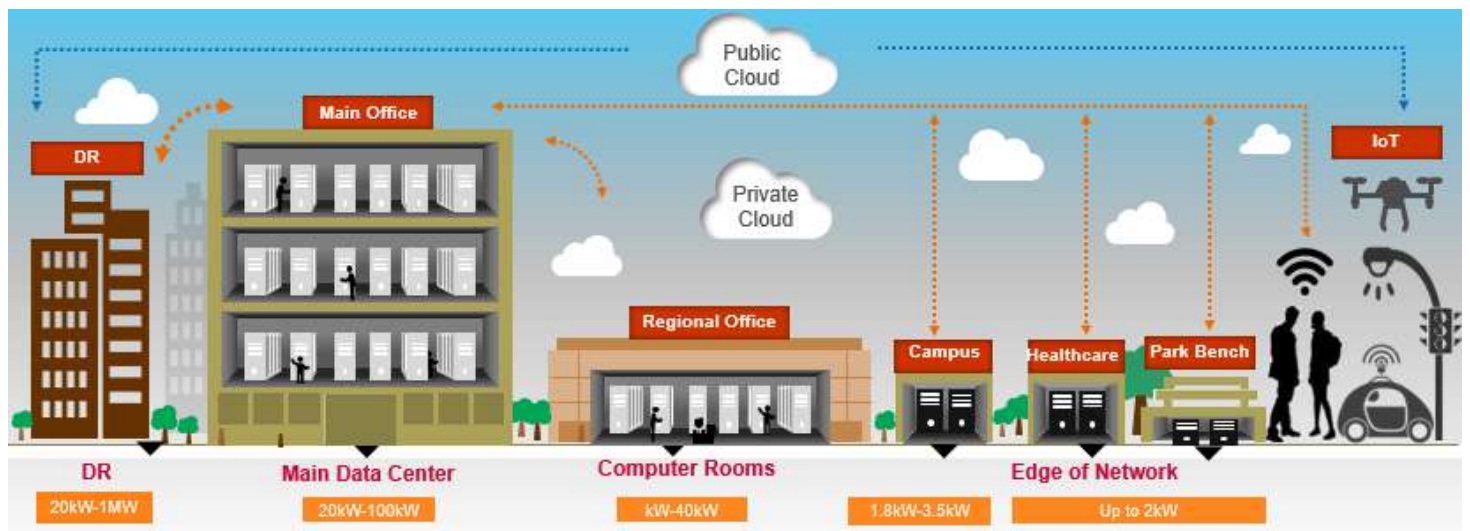
What IT & Data Center Manager wants

- Improve energy efficiency, space utilization & IT productivity
- Feature interoperability for fast & easy design and implementation
- Offer measurable savings in capex & opex



In modern IT archetype, edge infrastructure play a significant role and small closet to micro data centers are being deployed to match uptime.

In this connected IT infra (as mentioned in image), smart approach with aisle containment is deployed in DC (data center) & DR (disaster recovery center) as an alternative approach based on demand from data center infrastructure managers.



Vertiv™ SmartAisle 2

The most advanced fully integrated data center infrastructure solution with the futuristic capabilities embedded with sophisticated technology to make the data center operations efficient, quickly deployable, provide monitoring and control of the entire operations.

Closely coupled systems like Monitoring, Physical security, Surveillance, Power management, Optimized cooling, Fire suppression, Water leak detection are pre-configured in the Vertiv SmartAisle 2 for a completely synchronized operation.

Intuitive Control Panel

- Enhanced system visibility in the controller users to gain a complete insight of the system operation
- Assist in troubleshooting to ensure that the system is always operating at its best efficiency

Unmatched Efficiency

- Vertiv SmartAisle 2 logic for Precision AC ensures the most accurate cooling environment for servers
- A high efficiency UPS system for efficient power conversion and transmission

Rapid Deployment

- With an integrated approach, Vertiv SmartAisle 2 facilitates quickest onsite deployment of the entire DC in a matter of weeks
- The add-as-you grow modular design creates a provision for future expansion of the DC space

Remote Management

- An intelligent system which works 24/7 & monitors the Vertiv SmartAisle 2 operations & provides preventive alerts to avoid any downtime. It captures every minute detail to provide analysis & statistical information. It also features a real time video recording, access control in the event of an alarm detection
- RDU501 offers real-time calculation for Vertiv Smart Aisle 2. System PUE monitoring and System power load proportion ensure optimal power usage. The drag-and-drop interface allows for rapid modelling of Vertiv SmartAisle 2



Vertiv SmartAisle 2 is a combination of the most advanced innovations in data center with the simplest self-assembled integrated design that is tailor-made to fit and perform in your white-spaces surpassing your expectations.



WELCOME TO THE WORLD OF THE MOST ADVANCED CONTROLLER INTEGRATING THE ENTIRE DATA CENTER INFRASTRUCTURE

MAIN SCREEN

Displays the current status of the unit, operational efficiency, aisle temperature and number of alarms based on priority



PUE Screen

Displays the precise PUE with detailed bifurcation of power usage by recording the demand fluctuations



THERMOGRAPH PROFILE

Displays the entire temperature field of each rack in the unit providing micro-level data for temperature variation



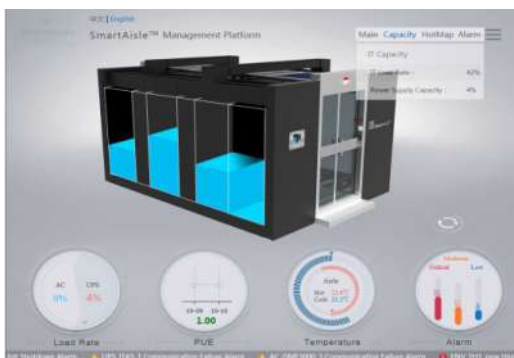
SYSTEM ALARMS

Displays all the current alarms with the precise fault location and the level of urgency in the Vertiv™ SmartAisle 2



IT LOAD PROFILE

Displays the capacity utilization for the load rate and the power supply to factor the instant demand profile variation



NEPHOGRAM

Displays real-time temperature reading for each rack on both sides of the hot aisle and the cold aisle



Vertiv SmartAisle 2

THE MOST ADVANCED DATA CENTER INFRASTRUCTURE

Vertiv™ SmartAisle 2 is equipped with precision cooling, UPS system, power management, monitoring & control technologies and fire suppression integrated into a holistic enclosed system solution

MODULAR CONSTRUCTION

- Multiple containment options for more site flexibility– Modular, Vertical and Retractable systems; with VE cabinets enable rapid delivery & implementation
- Integrated with safety system like openable magnetic roof plate; automatic sliding door can also be customized



POWER DISTRIBUTION SYSTEM

- Inbuilt power distribution set up for the necessary utilities and the IT racks with metered devices which measure the power consumption
- Vertiv™ SmartAisle 2 offers Vertiv™ Geist make unique lock using standard C14 / C20 power cord, dual color chassis and U-locking feature

UPS SYSTEM

- Highly advanced APM series UPS unit specifically designed for high operating efficiency
- Power transmission efficiency of upto 96% on full load



PRECISION COOLING UNITS

- Multiple type of Precision AC system can be configured- like air/ water cooled, chiller, etc. allowing maximum flexibility in design & operation. Liebert CRV4 series with VCC (shared outdoor unit for multiple indoor units) offers over and above 25% better efficiency. The high density Liebert XD solution can be offered in Vertiv SmartAisle 2
- Integrated with Vertiv SmartAisle 2 logic control feature that functions the most efficient/accurate thermal control algorithm to maximize energy saving



SUPPORT UTILITIES

- Magnetic locking roofs with automatic opening feature for exhaust ventilation in case of power outage
- Automatic sliding doors with finger print access control & fire alarm integration with inbuilt fire suppression system

INTELLIGENT LIGHTING SYSTEM & CABLE MANAGEMENT

- Integrated 3-color bright lights, set display, illumination and easy-to-understand interface to facilitate appropriate space lighting needs within Vertiv™ SmartAisle 2
- Specifically designed roof trunking feature helps easily guide the cable run over the entire Vertiv SmartAisle 2 unit



REMOTE MANAGEMENT

- Equipped with a completely intelligent RDU 501 Monitoring System, Trellis™ Smart InfraSight takes data from Liebert® RDU501 devices and represents it into a 3D model for one glance monitoring.
- Apart from physical site access control, SmartAisle is equipped with 4 HD cameras located in both the hot and cold aisle to facilitate remote viewing of the physical site conditions

ADVANCED TOUCH SCREEN DISPLAY CONTROLLER

- The most sophisticated controller with unparalleled capabilities of measuring, controlling and monitoring the entire system configuration thereby providing real-time and accurate PUE of the system



