Edge Data Center

Customize your edge computing with Vertiv's integrated modular solutions
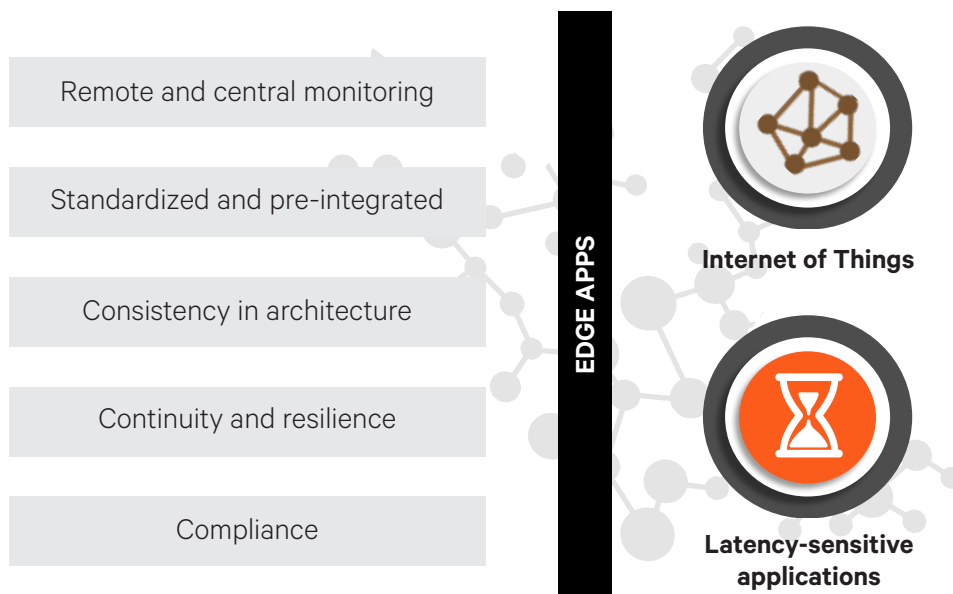
Prepared to unlock new possibilities at the edge? Vertiv global solutions can design and deliver scalable, customized edge data centers that speed deployment, minimize risk, and control your costs.

Vertiv uses modular integration techniques to tailor solutions for your application while offering the benefits of a streamlined process. We leverage industry-leading products including Vertiv™ SmartMod™ and prefabricated modular infrastructure, and combine our complete power, thermal and IT management offerings with our IT expertise to deliver comprehensive infrastructure solutions. These offerings, ranging from single racks to entire structures, are pre-configured and validated with more than 60 cross-disciplined engineers at a Vertiv facility, then delivered to customers either in a plug-and-play format or in a modular format that can be deployed by the customer over time.

With Vertiv global solutions, you can implement prefabricated modular (PFM) edge data centers of any scale that are built to maximize flexibility, improve scale, and boost efficiency. Pre-built, factory integrated systems give you the flexibility of a custom solution with the convenience of an off-the-shelf product. And, you'll have access to the breadth of our portfolio as well as the depth of our experience and our discipline specific partners to simplify mission critical challenges. Our portfolio spans power, thermal and infrastructure management products, software and solutions, and is complemented by a network of nearly 250 service centers worldwide.

PFM DATA CENTERS AT THE EDGE

- Reduce the core data center load

- Solve latency and bandwidth issues

- Address the costs of transport

- Enable innovation and real-time analytics

- Boost customer satisfaction

Customer Needs at the Edge

Remote and central monitoring

Standardized and pre-integrated

Consistency in architecture

Continuity and resilience

Compliance

EDGE APPS

Internet of Things

Latency-sensitive applications

Source: Gartner

Related Products - Americas

SmartMod

For small room IT deployments up to 10 racks and 100kW or less, SmartMod offers a simple way to install capacity in a fraction of the time a typical IT build might take. With integrated, pre-engineered, and pre-fabricated infrastructure, you can rapidly achieve your objectives. And you don't have to blow the budget, or overbuild based on uncertain future needs – with right-sized systems designed to work together and optimized for constructability and speed to startup, you can build just what you need today and expand as needed in the future. SmartMod leverages core Vertiv Critical Power, Thermal Management, and Monitoring & Control technologies, including modular and scalable Vertiv™ Liebert® EXM UPS power protection, close-coupled in-row Liebert CRV thermal management units, flexible Vertiv VR racks, Vertiv rack PDUs, thermal containment to isolate hot aisle and cold aisle airflows, and more. Find out more about the SmartMod here.
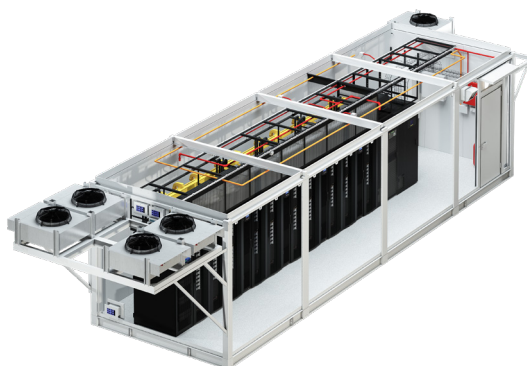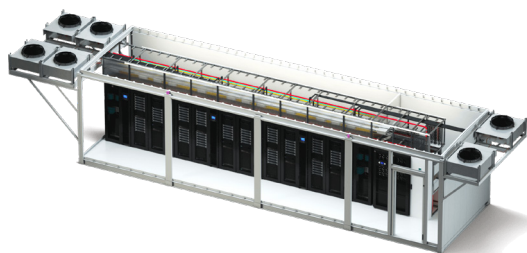
Related Products - EMEA

SmartMod

For small room IT deployments between 2-12 racks and 90kW or less, SmartMod offers a simple way to install capacity in a fraction of the time of a typical IT build. With integrated, pre-engineered, and pre-fabricated infrastructure, you can rapidly achieve your objectives. And you don't have to blow the budget, or overbuild based on uncertain future needs – with right-sized systems designed to work together and optimized for constructability and speed to startup, you can build just what you need today and expand in the future. SmartMod leverages core Vertiv Critical Power, Thermal Management, and Monitoring & Control technologies, including Liebert UPS power protection, in-row Liebert CRV thermal management units, Knürr® racks, Vertiv rack PDUs, thermal containment, and more. Find out more here.
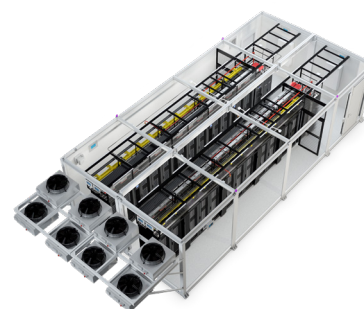
SmartMod MAX

SmartMod MAX is a simple, configurable system that extends the capability of the SmartMod platform to larger deployments. For IT deployments up to 180kW and 26 IT racks, SmartMod MAX offers a simple way to install capacity. The modules are shipped in two prefabricated sections, then connected and sealed at your site by experienced Vertiv personnel to create a contiguous space, just like a traditional data center. Configured with two rows of racks, the system uses aisle containment to ensure optimal performance and efficiency of thermal management systems. All subsystems are factory installed into a secure, weatherproof and transportable enclosure – simplifying and shortening on site time required to install and startup, and reducing the potential for risk, quality, or schedule delays. Find out more here.

Prefabricated Modular Data Centers

PFM data centers deliver low risk, high value implementations with the added benefits of faster delivery and easier on-site assembly. Designing, configuring, and fabricating data center infrastructure off-site creates tighter integration across systems, streamlines processes and enhance management of those systems.

Prefabricated modular encompasses data centers and other critical facilities that are pre-engineered with systems assembled, integrated, and tested in a factory environment to shorten deployment time frame and improve the predictability of both schedule and cost performance. They are flexible, allowing for faster deployment and lower risk, scalable, allowing for rapid response to unforeseen demand, and efficient, allowing for lower total cost.

The data center can include such subsystems as thermal management, power protection and distribution, controls and management software, and services — plus ancillary systems such as lighting, fire protection, physical security,

and water treatment — pre-configured to create a complete environment for the efficient and reliable operation of technology systems.

Other benefits include:

- Rapid Design - Leveraging repeatable subsystem building block designs enables simplicity, resulting in an efficient, automated, and low-risk design process.

- Tailored Integration - Highly complex mechanical & electrical integration activities are off-loaded to the factory where quality and velocity can be maintained.

- Simplistic Assembly - Concise and clear site documentation provides on-site teams with essential information needed to assemble modules effortlessly.
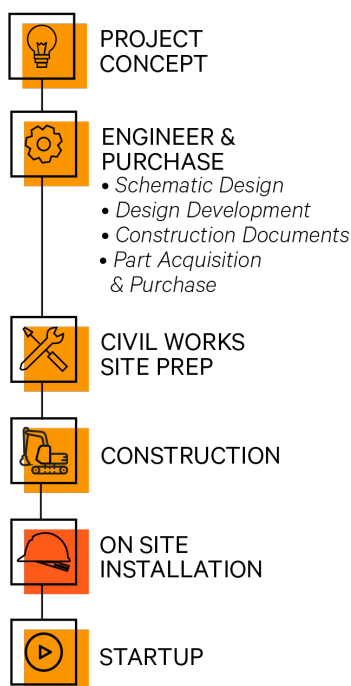
PFM DATA CENTER EDGE DEPLOYMENT

Vertiv partnered with an organization to design and deploy a prefabricated data center for their edge site, featuring:

- Liebert CRV thermal management units

- Knürr racks with Vertiv PDUs

- Liebert UPS power protection

Check out the video here.

Traditional New Build

- PROJECT CONCEPT
- ENGINEER & PURCHASE
  - *Schematic Design*
  - *Design Development*
  - *Construction Documents*
  - *Part Acquisition & Purchase*
- CIVIL WORKS SITE PREP
- CONSTRUCTION
- ON SITE INSTALLATION
- STARTUP

Prefabricated Modular New Build

- PROJECT CONCEPT
- ENGINEER & PURCHASE
  - *Schematic Design*
  - *Design Development*
  - *Construction Documents*
  - *Part Acquisition & Purchase*
- FACTORY INSTALL & TESTING
- SITE ASSEMBLY & TESTING
- STARTUP

PREFABRICATED MODULAR

- CIVIL WORKS SITE PREP
- CONSTRUCTION

■ Data Center Owner
■ Data Center Provider

Vertiv.com | Vertiv Headquarters, 1050 Dearborn Drive, Columbus, OH, 43085, USA

(R10/19)