Core Data Center & Critical Facilities

Build flexible, scalable and efficient core data centers with Vertiv global solutions
Vertiv makes expanding core data center and critical facility capacity easy by using modular integration techniques to effectively design and build data centers anywhere in the world.

Whether you’re the head of global data operations, a data center architect or the CIO, you know just how critical core data center capacity is to the success of your organization. It’s where thousands of fundamental tasks happen every moment, and without it, you’d be lost. But you also know that the status quo isn’t good enough. You’re in the middle of endless demands for more efficiency, greater density, improved agility – and lower costs.

Balancing all those requirements isn’t easy, but at Vertiv, we’re experts at it. We provide solutions to data center challenges for thousands of organizations around the world. Unlike the status quo of buying commodity products from multiple vendors and managing integration yourself, we offer a different path to success. We make core data centers and critical facility capacity easy by using a mix of Vertiv and discipline specific partners, offering a solution tailored to your needs anywhere in the world. We tailor the solution for your application, pre-engineering, pre-configuring, pre-testing, and pre-validating against your specific needs and expectations. Our prefabricated modular (PFM) data centers offer a variety of solutions for core data centers & critical facilities, whether you’re looking for a new build, expansion of pre-existing facilities and retrofits, or augmentation of facilities.

THE VERTIV DIFFERENCE

- We engage with IT, facilities, network and security to manage your project – from initial requirements through execution.
- We use our core competencies to drive out inefficiency. Our expertise with mass producing and customizing pre-tested, factory-integrated, multi-vendor solutions and then assembling them on-site is second to none.
- We work with your legacy facility team, keeping critical loads up and running while we add new capacity and expand.
Vertiv™ 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 Vertiv SmartMod here.

Vertiv™ Power Module 1000/1200

Power Module 1000/1200 enables you to deploy isolated, power-dense, critical infrastructure capacity just in time to meet your business demands. You can rapidly construct redundant blocks of 1000 or 1200 kVA/kW critical power infrastructure for your new or existing facility, allowing you to focus on the sensitive areas of the facility that require the most management. And, it can be used in a site architecture that is hot scalable, so you can add capacity by simply adding additional units, without taking the critical loads offline. Vertiv Power Module incorporates Liebert EXL S1 UPS offering industry-leading power density and proven reliability, multiple switchboard configurations offering distribution options for both critical and non-critical downstream loads, redundant Liebert thermal management units, and more. The entire Vertiv Power Module and its subsystems are designed to minimize additional work required at the site – from arrival on-site to startup and commissioning in days instead of months. Find out more 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](#).

**Power Module 1000/1200**
Vertiv Power Module 1000/1200 enables you to deploy isolated, power-dense, critical infrastructure capacity just in time to meet your business demands. You can rapidly construct redundant blocks of 1000 or 1200 kVA/kW critical power infrastructure for your new or existing facility. It can be used in a site architecture that is hot scalable, so you can add capacity by simply adding units, without taking the critical loads offline. Power Module incorporates Liebert EXL S1 UPS, multiple switchboard configurations, redundant Liebert thermal management units, and more. The entire Power Module and its subsystems are designed to minimize additional work required at the site – from arrival on-site to startup and commissioning in days instead of months. Find out more [here](#).

**Power Module 400/600**
With Vertiv Power Module 400/600, you can deploy the right amount of power to satisfy your needs today — in 120kVA or 200kVA increments — while allowing you to scale to the needs of tomorrow. Power Module 400/600 is both internally and externally hot scalable — you can add capacity with systems internally, or you can add additional Power Modules. This means a single unit can operate with N+1 or 2N redundancy, or you can incorporate Power Modules in an overall redundant site architecture. 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.

Vertiv partnered with a government agency to deploy a prefabricated modular data center solution for their core data center site. PFM data centers deliver low risk, high value implementations with the added benefits of faster delivery and easier on-site installation, resulting in a data center that’s up and running in hours or days instead of weeks or months. Watch the video [here](#).

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**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**