

# Vertiv™ SmartIT

Pre-engineered rack infrastructure for faster, repeatable rack-scale AI deployments



## Key features

- Pre-engineered, pre-validated building block to align with the OCP and NVIDIA MGX modular reference architecture.
- Engineered for high-density deployments.
- Configurable system design for multiple deployment requirements including compute, support, and storage.
- System level self-governance and automation including proactive leak detection and automated shunt-trip for protected and reliable operations.
- Single point of contact for support.



Vertiv™ SmartIT configurations

Vertiv™ SmartIT is a configurable, pre-engineered rack solution optimized for server manufacturers and integration partners supporting NVIDIA MGX and Open Compute Project (OCP)-compliant architecture. It delivers rack-level power and cooling within a single system, extending power from the overhead busway through the Vertiv™ PowerIT Apex PDU or directly into the rack and integrating the full power train and thermal chain.

Designed as a rack-level building block, Vertiv SmartIT supports multiple deployment scenarios, from a single standalone rack to multi-rack configurations and Vertiv™ SmartRun-integrated pod-scale environments, with the same validated architecture at every scale. This flexibility is designed to deliver consistent system-level performance, reliability, and compatibility across power, cooling, and monitoring components for AI workloads.

## Application

- AI training and high-density inference
- AI networking and storage
- High-performance computing (HPC)
- Generative AI and machine learning (ML)
- AI factories

## Industries



**Colocation  
data centers**



**Hyperscale  
and cloud**



**Finance**



**Healthcare**



**Manufacturing**



**Logistics**



**Education**



**Retail**



**Federal**



**Telecom**



# Converging infrastructure layers

## Rack-scale compute

An outline of the enclosure, compute, and storage-rack power components included in each configuration.

### Components

Vertiv™ Open Rack for OCP 21"

Vertiv™ Open Rack for NVIDIA MGX 19"

## Thermal chain

Liquid and air-cooling work together to manage high-density AI heat loads across the selected rack-level configuration.

### Components

In-rack manifold

In rack - Vertiv™ CoolChip CDU

## Power train

Rack-level DC power conversion and optional UPS protection to support high-density compute.

### Components

Vertiv™ PowerDirect Shelf

DC Busbar

Vertiv™ PowerIT PDU

## Monitoring and services

Every module includes rack-level monitoring leak detection and response, plus end-to-end services from installation through commissioning.

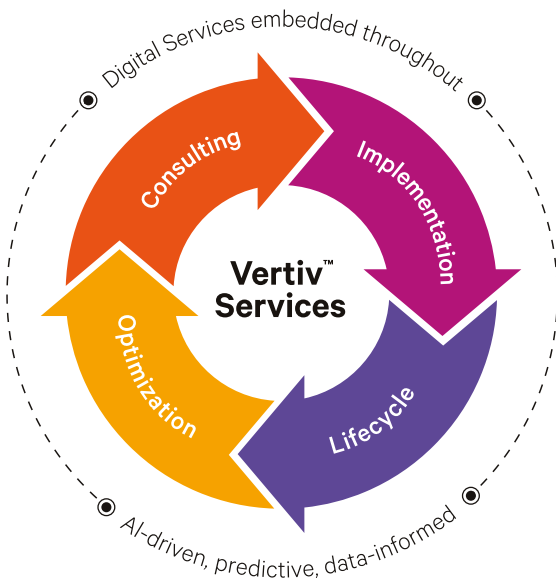
### Components

Environment and water leakage sensors

Vertiv™ Avocent® ACS

## Vertiv™ Services

Support Vertiv™ SmartIT beyond startup with lifecycle services for installation, commissioning, and ongoing maintenance.



1. Comprehensive portfolio of services to address technical and business challenges, simplify operations, and reduce costs.
2. Global team of trained specialists supporting every phase of data center deployment and operation.
3. Standardized, documented, and validated processes leveraging automation tools and proven methodologies.