



# Edge Data Center Solutions

Complete Solutions Engineered to Accelerate Edge Deployments



**Power**



**Cooling**



**Racks &  
Enclosures**



**Monitoring &  
Management**



**Services**



# 1. Edge Deployment Challenges

Adding compute capacity at the Edge can be a long and complicated process for IT and Facility leaders.

## Time Consuming Process

The process from planning to commissioning takes 6 – 12 months on average and is difficult to predict with confidence.

## Hidden Costs

Over half the cost of a deployment goes to the process, including planning, consulting, site prep, etc.

## Cooling Capacity

Computing generates too much heat for the existing infrastructure, requiring additional cooling capacity.

## Power Upgrades

New compute technologies may require more power than the current facility can handle.

## Management

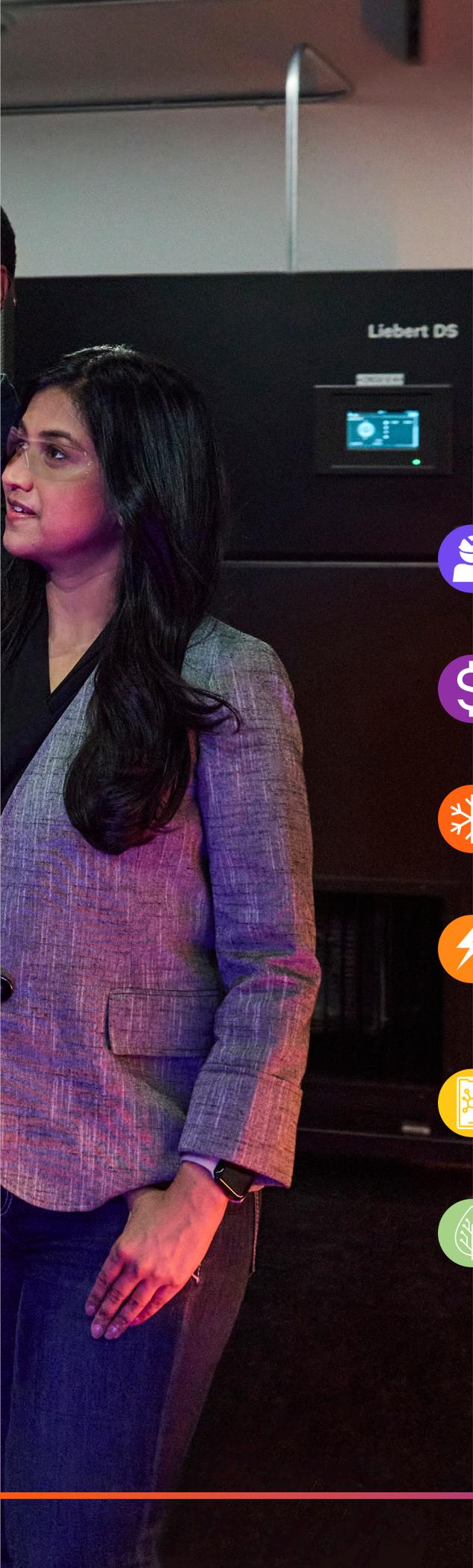
IT distributed across multiple sites and from different vendors is very challenging for IT teams to manage efficiently.

## Sustainability

With energy costs and demand both rising at the Edge, the pressure is on to find more sustainable technologies.



***Did you know that 60% of network outages are related to power or cooling?***



# How Vertiv™ Solutions Simplify Deployment

Pre-engineered systems simplify edge deployments with a repeatable and scalable solution, enabling business agility for future growth.



## Accelerate Deployments

Accelerate the deployment process by reducing planning, build, and overall deployment time.



## Reduce Costs

Reduce costs associated with planning, construction and renovation and make the budget for the project more predictable.



## Integrated Cooling

Many solutions offer integrated cooling and containment to maximize cooling capacity and energy efficiency in the space.



## Pre-Integrated Power Distribution

Solutions can include Busway, UPS battery backup, surge protection, and pre-integrated power distribution to IT rack enclosures to simplify installation and commissioning.



## Remote Management

Standardized, single-vendor solutions include remote management options to simplify environments.



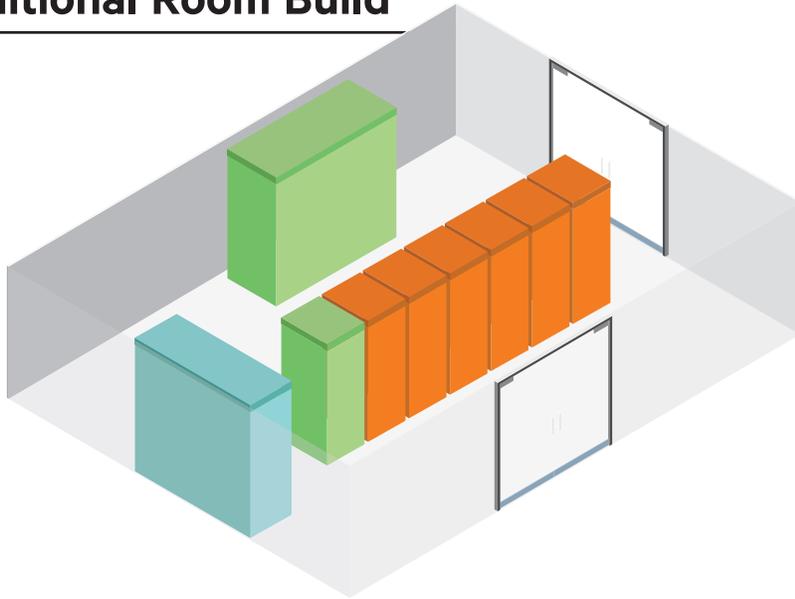
## Contained In-Row Cooling

Contained systems with dedicated cooling are proven to reduce cooling energy use and carbon emissions by as much as 30%.

***Vertiv is a Global Leader in Data Center Power and Cooling Solutions***

# It is Time to Rethink the Traditional Process

## Traditional Room Build



Racks



Power



Cooling

### Complex Process

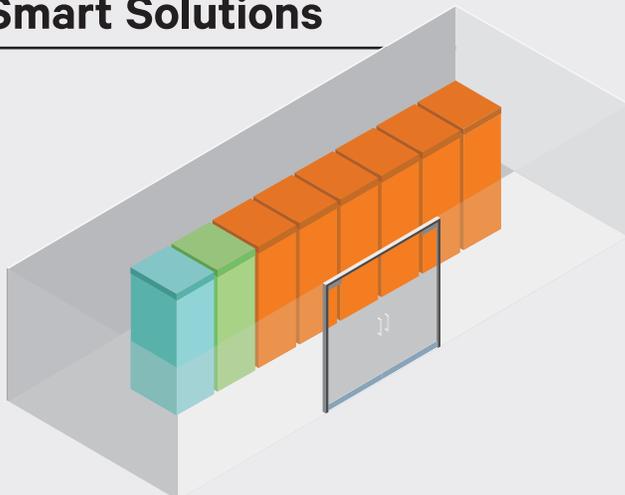
Months of planning, design, procurement, legal permitting, and consulting go into creating custom designs for a room build or upgrade. It takes months for each deployment, and each room is typically repeated all over again for every location.

### Planning and labor consume

# 50%

of the deployment cost\*

## Vertiv™ Smart Solutions



Racks



Power



Cooling

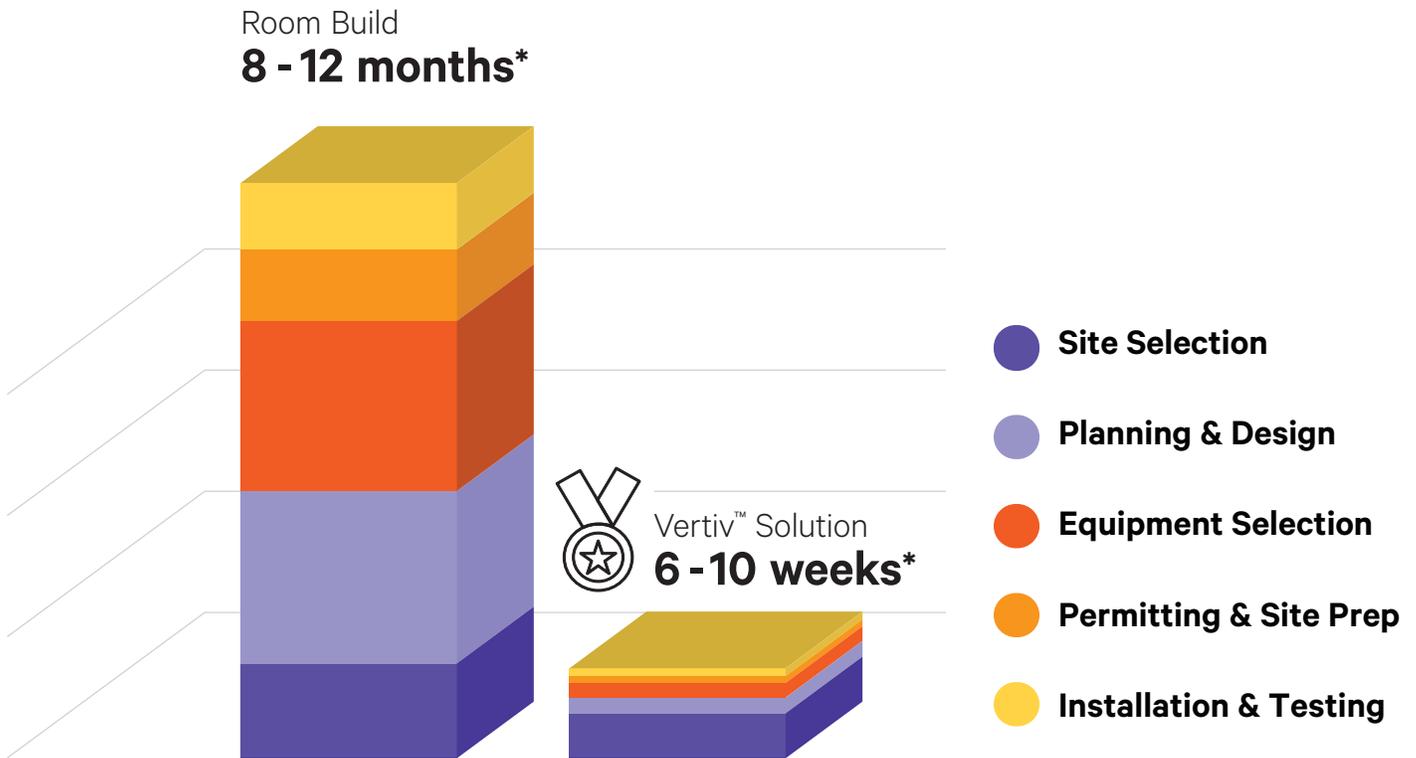
### What's Included

- Sealed Racks
- In-Row Cooling
- Power Distribution & UPS
- Fire Suppression
- Physical Security
- Optional fire suppression

*Pre-Engineered Solutions eliminate most of the design and planning that goes into Edge deployments.*

## Vertiv™ Smart Solutions vs Room Build

*Pre-engineered systems greatly reduce time spent on planning and design, which drives down deployment cost.*



**80%**

**Faster time to deployment\***



**30%**

**Initial cost savings per deployment\***



**20%**

**Reduction in carbon emissions\***

\*For illustration purposes only. Figures are estimations based upon Vertiv's internal engineering studies and analysis. Actual deployment times, costs, and savings may vary depending upon scope, specifications, geographic locations, etc.

## 2. Pre-Engineered Edge Solutions

### Vertiv™ SmartRow™ 2

Deployment-ready contained row of racks for Edge Data Centers.

2 – 8 Racks

Up to 40kW with full redundancy (N+1)

#### What's Included



IT Rack Enclosures



Contained In-Row Cooling



UPS Battery Backup



Power Distribution



System HMI



Remote Management



Built-in Security

*Pre-engineered solutions from Vertiv include virtually everything needed to keep IT infrastructure running 24/7.*



SCAN FOR  
MORE DETAILS

## Vertiv™ SmartAisle™ 2

Deployment-ready contained aisle solution for Edge Data Centers.

8 – 20 Racks

Up to 200kW with full redundancy (N+1)



### What's Included

IT Rack Enclosures



Contained In-Row Cooling



UPS Battery Backup



Power Distribution



System HMI



Remote Management



Built-in Security



*Vertiv™ Smart Solutions can be installed  
in days, not months.*

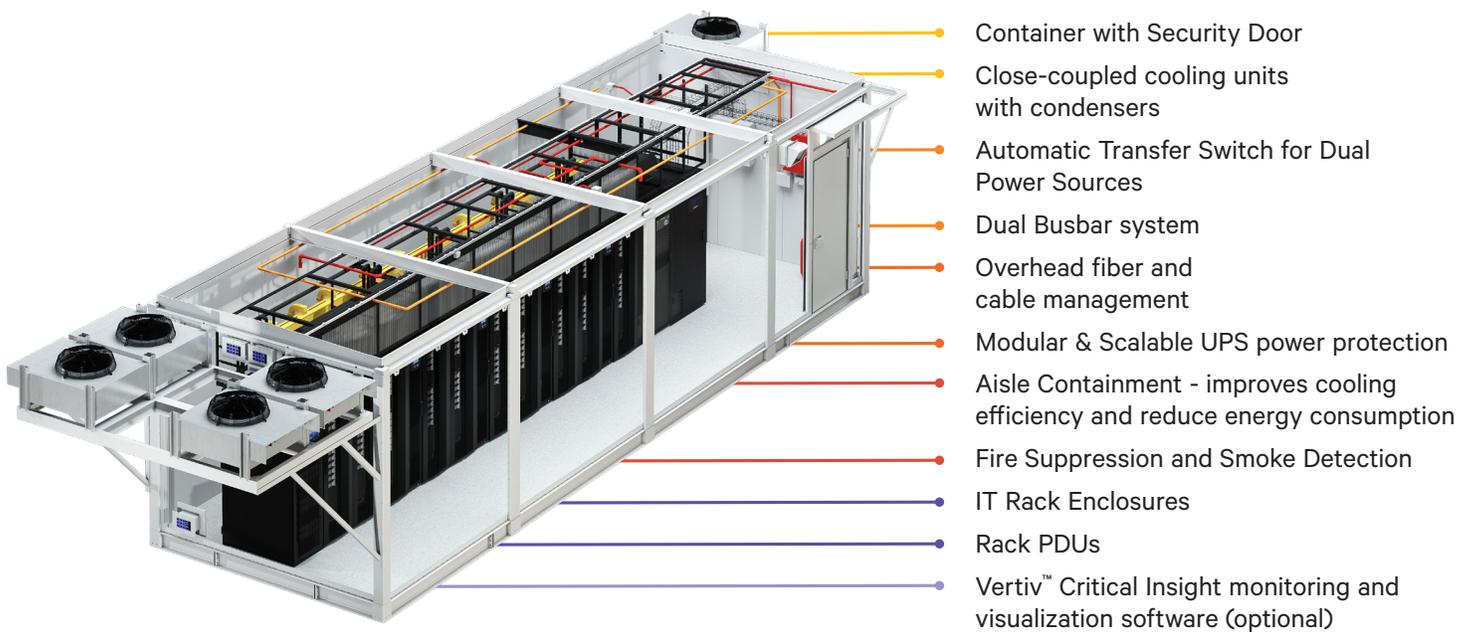


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MORE DETAILS**

# Vertiv™ SmartMod™

Modular Data Center with Everything Needed to Achieve Your IT Objectives.

2 - 14 Racks | Up to 100kW



- Container with Security Door
- Close-coupled cooling units with condensers
- Automatic Transfer Switch for Dual Power Sources
- Dual Busbar system
- Overhead fiber and cable management
- Modular & Scalable UPS power protection
- Aisle Containment - improves cooling efficiency and reduce energy consumption
- Fire Suppression and Smoke Detection
- IT Rack Enclosures
- Rack PDUs
- Vertiv™ Critical Insight monitoring and visualization software (optional)

**Check out our product  
in the Vertiv™ XR App**



**SCAN FOR  
MORE DETAILS**



# Prefabricated Modular Solutions

Vertiv prefabricated modular data centers deliver low risk deployments through faster delivery and easier on-site assembly.

## Rapid Design

Standardized subsystems enable efficient design process.

## Tailored Integration

Customized documentation provides concise information for module assembly.

## Simplistic Assembly

Mechanical & Electrical integrations are completed at the factory.

## PFM Data Center Edge Deployment



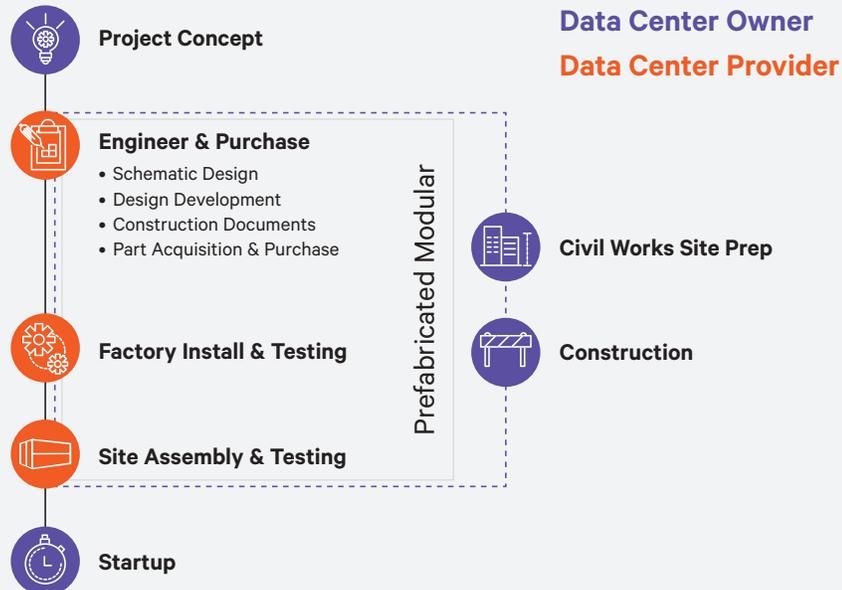
Vertiv partnered with a government agency to deploy a prefabricated modular data center solution for their core data center site. PFM data centers deliver low risk, high value implementations with the added benefits of faster delivery and easier on-site installation, resulting in a data center that's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

[Watch the video here.](#)

### Traditional New Build



### Prefabricated Modular New Build



# Vertiv™ SmartCabinet ID

## Product Highlights

- Complete Datacenter Solution
- Zero-U Rack Space Cooling
- 3.5kW & 7kW Split-System Cooling
- IP54 Rated (Dust/Water Resistant)
- Mountable UPS Power
- Mountable PDU's
- Remote Monitoring
- HMI Screen
- Physical Security Lock
- 24U & 42U Cabinets
- NAM & International
- Service Offering
- Complete Vertiv Solution





### Outdoor heat rejection

Maintain proper temperature control inside the rack with outdoor heat rejection. And with the option to mount the condenser on the roof of the rack, added flexibility is built in.



### Fully sealed rack

IP54 rating protects mission-critical IT equipment from dust and water, providing a longer life to the equipment and peace of mind to business owners.



### Zero-U cooling solution

The Zero-U cooling solution maximizes the investment in your business by utilizing the full cabinet, allowing for more IT equipment to be installed.



### HMI display with built-in communications

Easy remote access for monitoring and management of power, thermal conditions, and unit security, allowing for more precise control over your most valuable assets.



### Integrated power distribution

Enable your IT investment to stay protected and online by installing a rack PDU on the pre-integrated mounting brackets. For added visibility, choose from select intelligent Vertiv™ Geist™ rPDU models that are compatible with the integrated HMI display (rPDU's sold separately).



### Emergency backup power

Reliable backup operations in the event of utility power failure through the use of the Vertiv™ Liebert® GXT5 UPS (sold separately).

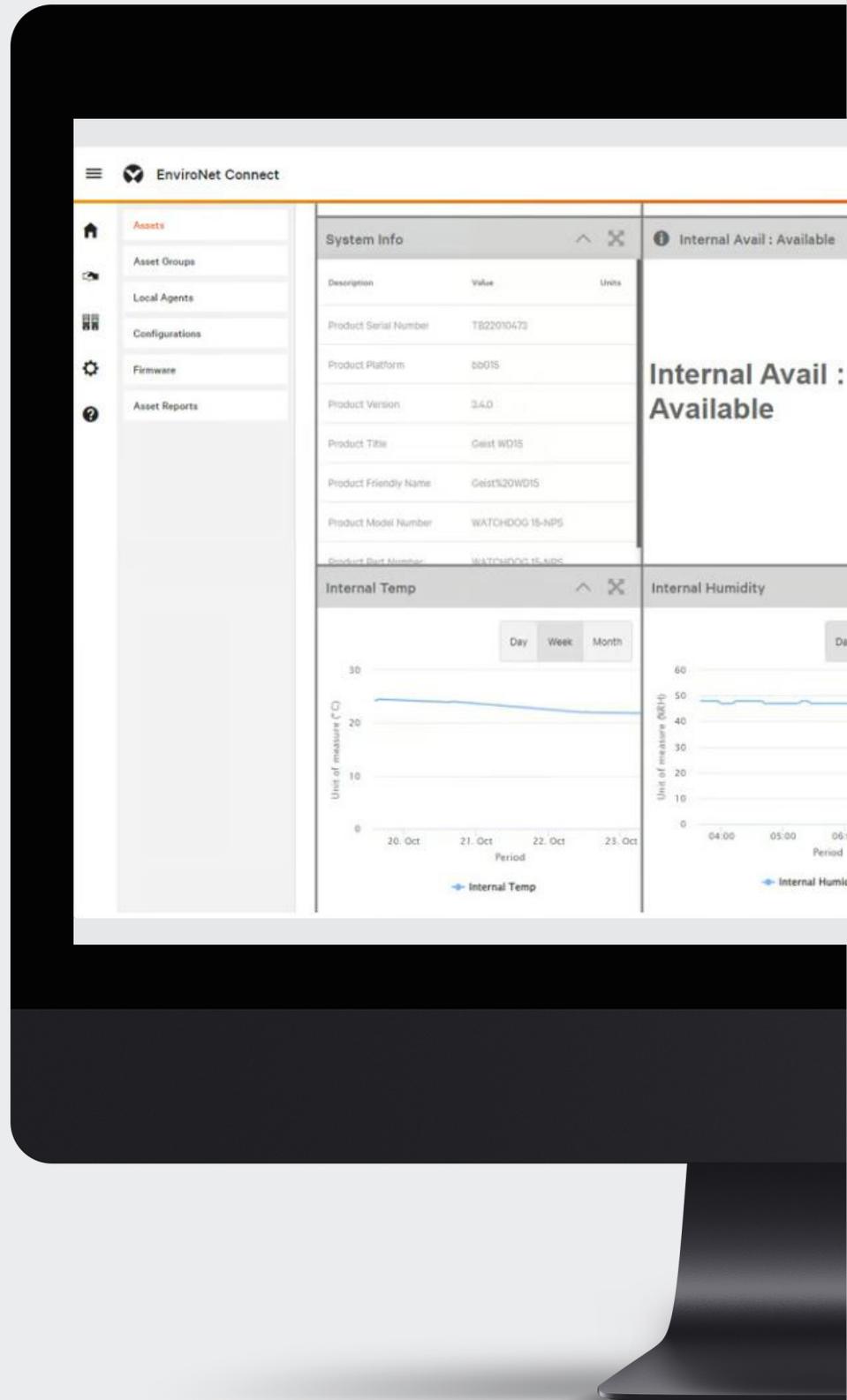


### Protect your investment with service offerings from Vertiv

We are here to support you with service solutions for your critical infrastructure and to maintain your vital applications. From thermal management to power and power distribution, the Vertiv™ SmartCabinet™ ID has a full suite of service offerings to help protect your investment and your business.

# Vertiv™ Environet™ Connect

Cloud-native platform for managing and monitoring IT infrastructure. It offers fleet management, bulk provisioning, device settings updates, firmware management, trending, and alarming.



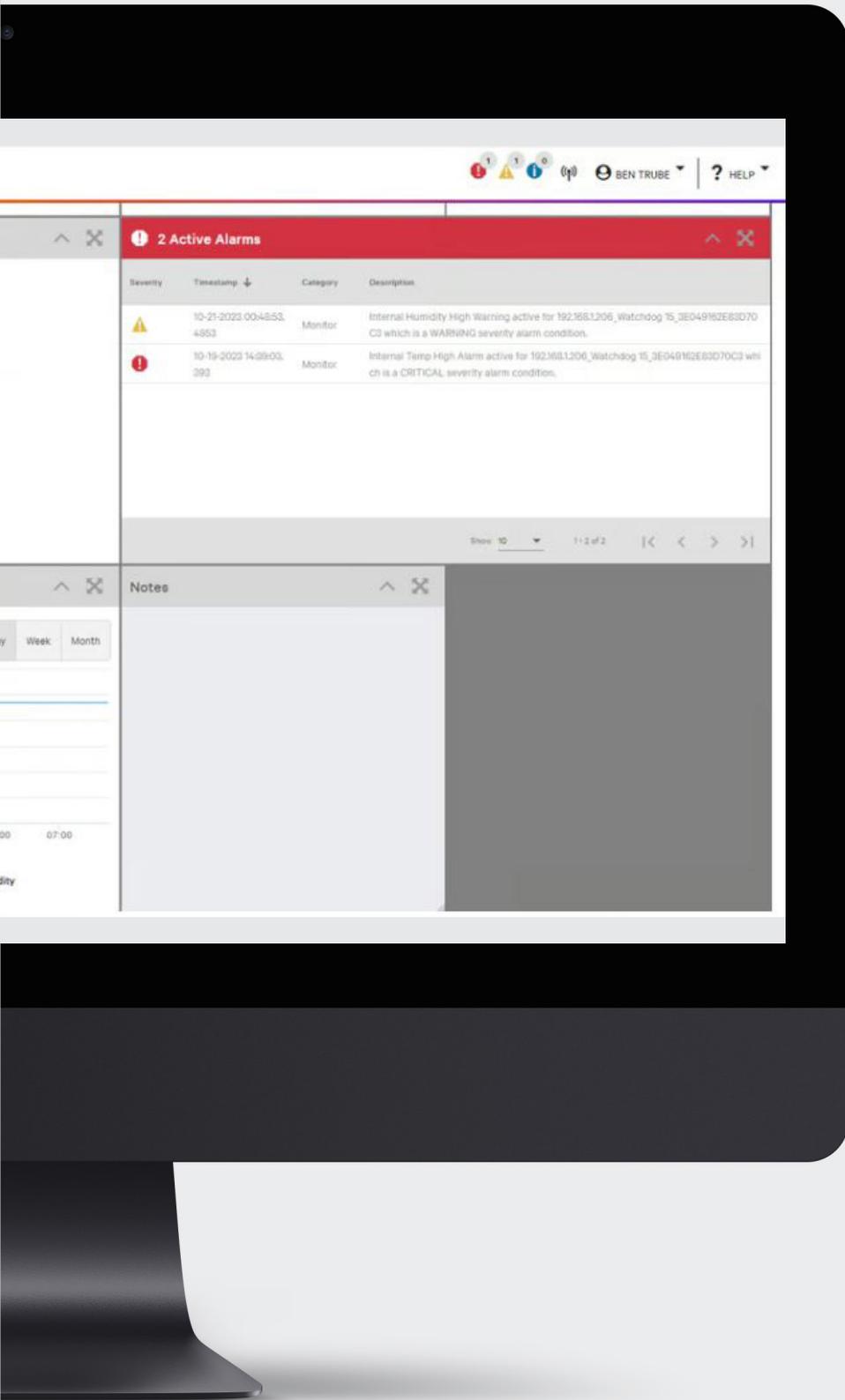
## Secure Cloud-Native Platform

Maintain the safety and reliability of your critical infrastructure.



## Seamless Device & Fleet Management

Supports distributed IT infrastructure and multi-tenant environments.



**Management**



**Alerting**



**Trending**



### **Always Up-to-Date and Accessible**

Always have the latest software, features, and supported devices.



### **Unified Cloud Portal**

Effortlessly manage device lifecycles through a portal, keeping firmware and device settings current.

# Vertiv™ Avocent® DSView™ Solution

Provision, Automate, and Control all your IT devices with a Vendor-Neutral Platform.

## Management Platform

Brain of the Avocent® DSView™ Solution  
1 required per fleet



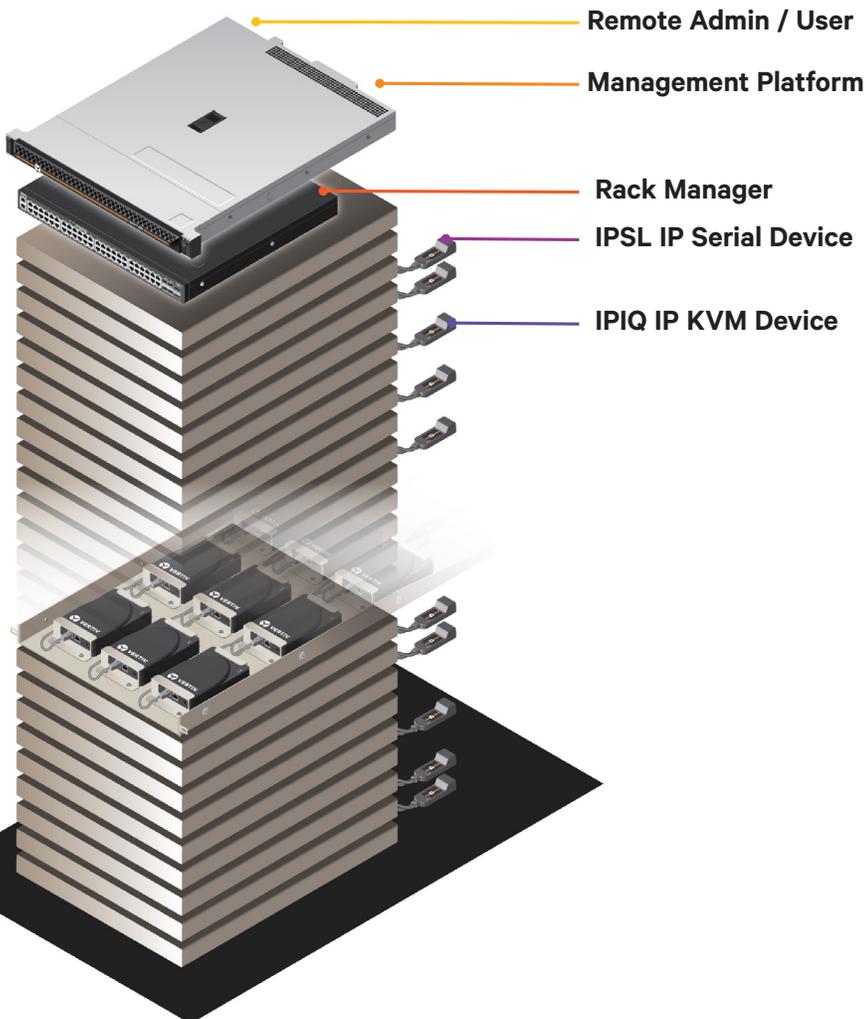
## Rack Manager

Aggregates Interface Modules  
1 per rack (optional)



## Interface Modules

IP modules provide KVM  
& Serial access to devices



## Compatibility

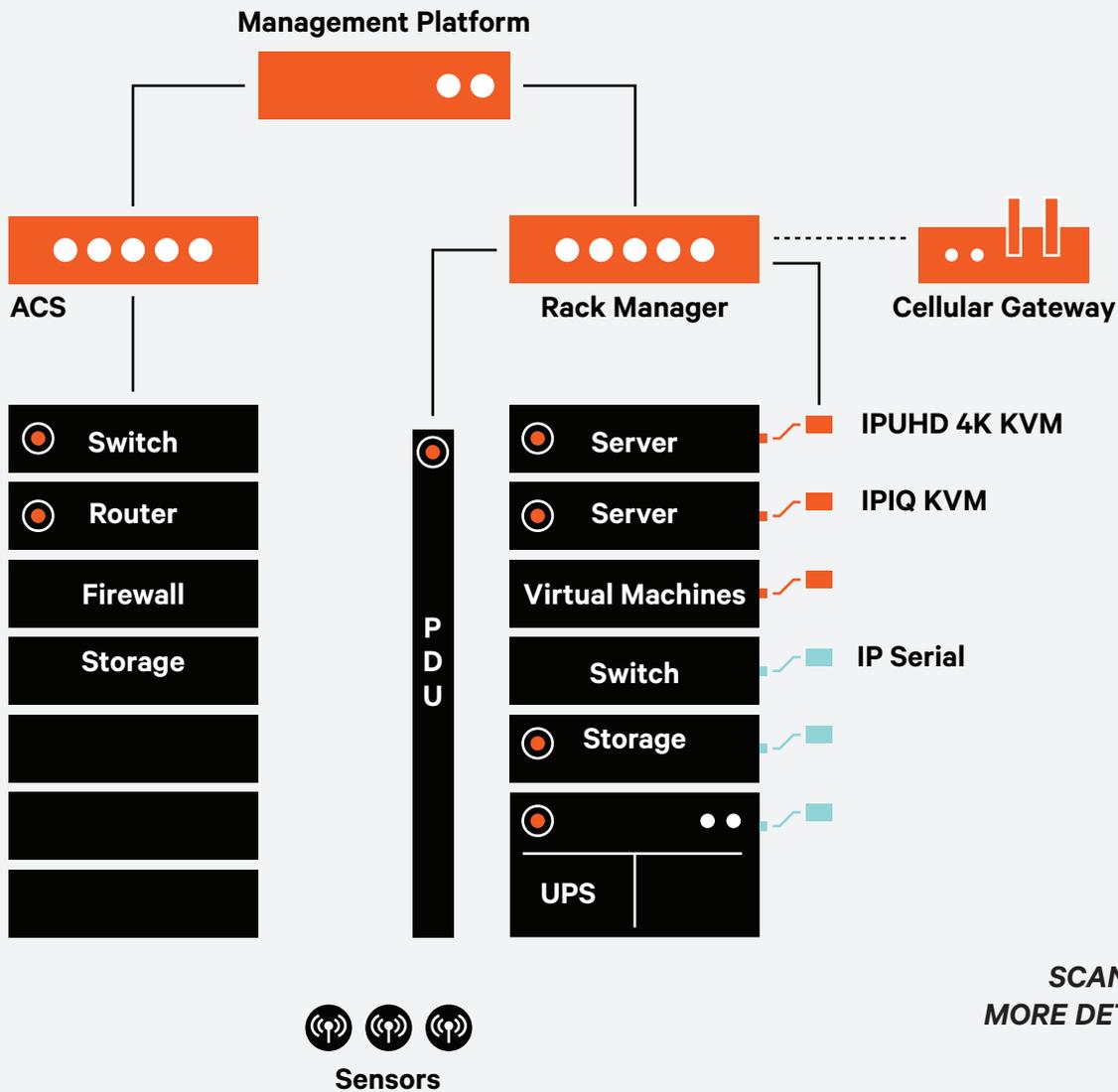
### IT Devices

- Servers
- Service Processors
- Virtual Machines
- Routers
- Switches
- Firewalls
- Storage Devices

### Power Devices

- Rack PDUs
- UPS

*Centralized IT Management enabling automation, provisioning, management, monitoring, and control of all your IT devices like no other solution in the market.*



**Only Vertiv™ Avocent® DSView™ Solution provides the following:**

- Common architecture with an open platform and APIs
- Flexible and scalable deployments
- Fastest and most feature rich KVM experience
- Most expansive management of IT devices
- KVM, Serial, Service Processor on a single device
- 100 + simultaneous users
- All digital architecture
- Multilevel security for users and devices
- USB-C native to match IT trends

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