![VERTIV™]

Vertiv™ Solutions Commander

Quick and easy installation and operation
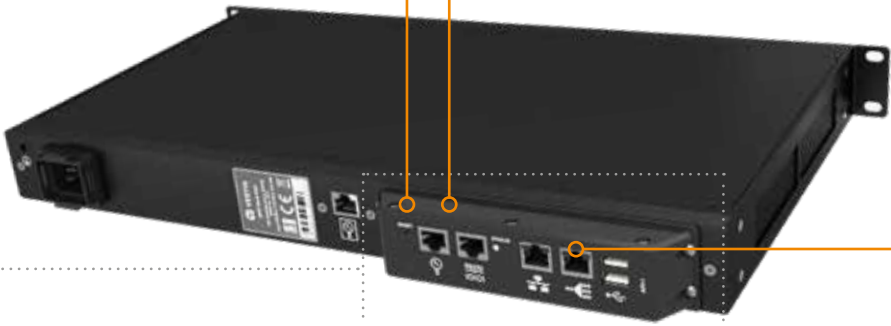Utmost security
Sustainability

**Monitoring
Controlling
Tracking
Supervision**

Communication module/gateway:
Interfaces for network communication and local environmental sensors. "Out-of-band" gateway interface for connecting to infrastructure devices.

SN sensors:
Consolidate environmental monitoring of temperature, air humidity, and potential-free input contacts with power supply at rack level.

— **Rack PDUs**

— **Branch PDUs**

— **Sensors**

— **Door closure**

— **Cooling**

— **UPS**

**Connection cables
with locking function:**
Prevent accidental unplugging of IT device cables.

What is the new Solutions Commander?

The new Vertiv Solutions Commander combines the following three important components, which up until now have been installed, set up, and maintained individually in conventional data center models:

- An intelligent PDU for power distribution

- Smart software for management, control, monitoring, and evaluation of data from connected infrastructure devices

- A gateway for collecting and preparing data from connected infrastructure devices, such as UPS, cooling, door closure, sensors, etc.

What challenges does the Solutions Commander meet?

Easy installation and maintenance

With only one interface and operation that is intuitive, installation and maintenance times are drastically reduced. One single IP address for up to 50 devices (PDUs, UPS, door closure, cooling), with an autoscan function; mass firmware and configuration updates simplify installation.

Security

In times of increasingly sophisticated hacker attacks, an out-of-band network is the key to the highest level of security. You can access systems and devices connected to the Solutions Commander at any time and from anywhere by means of a primary IP address and encrypted via https, SNMPv3 as well as via IPsec for VPN access.

Efficiency and sustainability

We ensure an extended service life for existing equipment, as all devices already installed in the data center can be connected to the new Solutions Commander. The Solutions Commander functions as an upstream unit, which raises all connected devices to current safety standard levels, and allows them to continue to be used freely while still adhering to IT compliance requirements.

Additionally, with the integrated smart software system ensures efficient management of your systems and devices and demonstrates the benefits of the entire solution by clearly evaluating trends, alarms, and logics.

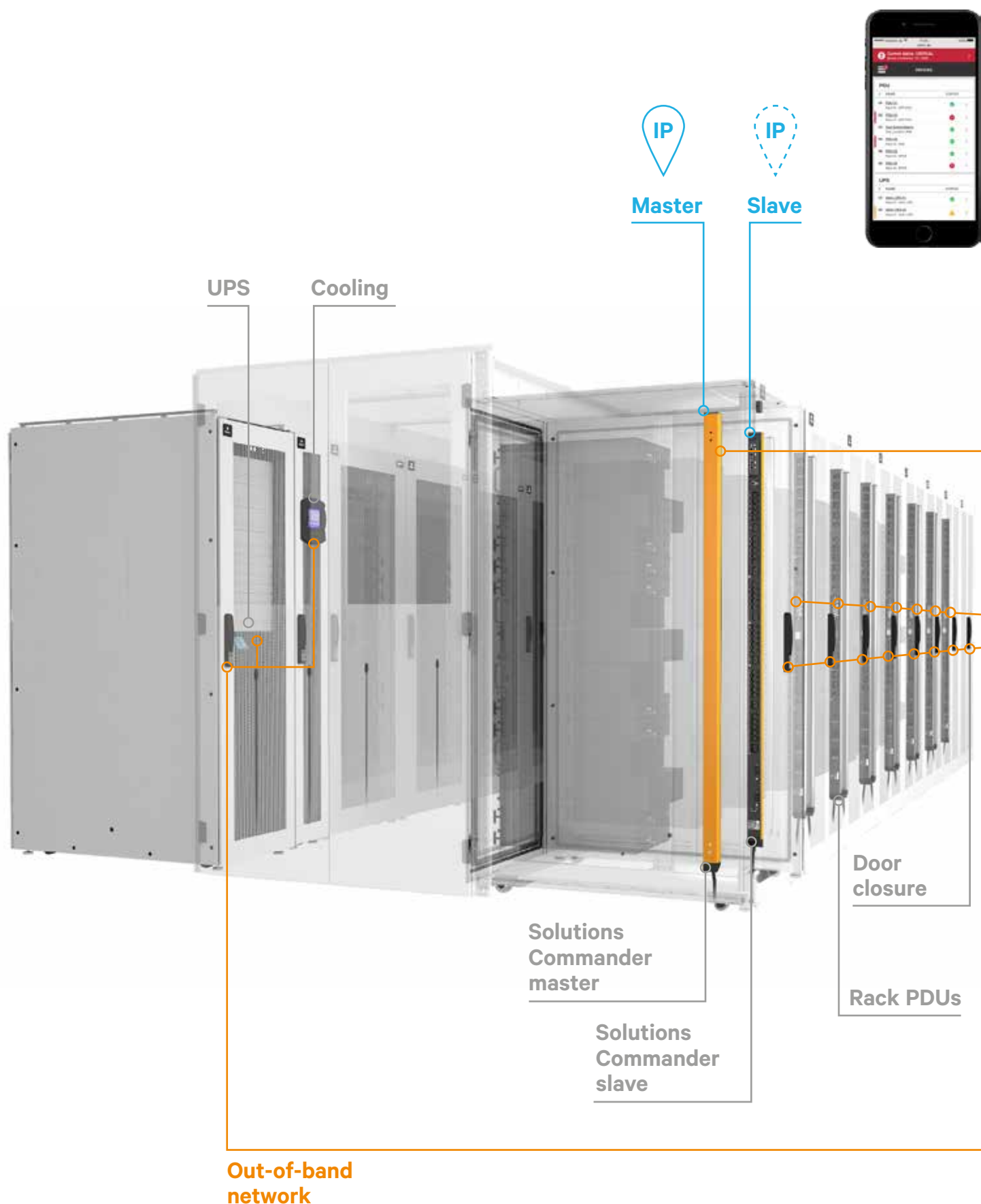# The Vertiv Solutions Commander in small data centers

The new Vertiv Solutions Commander functions not only as a **power distribution unit,** but also as **gateway and data center management software.** Quick and easy installation, configuration, monitoring, and control of a small data center or a rack row of **up to 50 IP addresses** for rack PDUs, UPS, and other IP-based infrastructure devices is guaranteed without any problems. The system is also accessible remotely over a single IP address and web interface.

The Solutions Commander makes it possible to create a local, independent small data center with independently running applications, in which data is securely stored, prepared (e.g. producing diagrams and trends), and ensures a quick and independent remedy in the case of an emergency, without great financial or personnel outlay.

The idea behind the new Solutions Commander is to extend the usual intelligent power distribution unit. It is installed in every data center – thus the new Solutions Commander requires no additional space on the rack, as it will simply replace the existing PDU.

Vertical Solutions Commander

Horizontal Solutions Commander

VERTIV™

IP
Master

IP
Slave

UPS   Cooling

Door
closure

Solutions
Commander
master

Rack PDUs

Solutions
Commander
slave

**Out-of-band
network**

The Vertiv Solutions Commander for SmartCabinets and Smart Racks

For SmartCabinets and Smart Racks the newly developed Solutions Commander is primarily a **control device**, which allows all installed components, such as the UPS or door closure, to be easily managed via a **central IP address** and offers a **comprehensive interface** for controlling all functions. The smart software allows responsible parties to evaluate all collected data and to create clear presentations of the trend results.

Control, remote monitoring, service

Central control device

- remote access to all installed components over one IP address by means of a network via browser and SNMP protocol
- optional alternative access via mobile network
- secure network interface with configurable access rights, secured internal network
- central monitoring/control of all components and sensors via user-configurable dashboard
- configurable alarm management, reporting of alarms via SNMP, SMS, or e-mail
- programmable process logic for automated operation and handling of faults up to secure IT shut-down, even if network connection is lost
- configurable local logfile for operating data and alarms
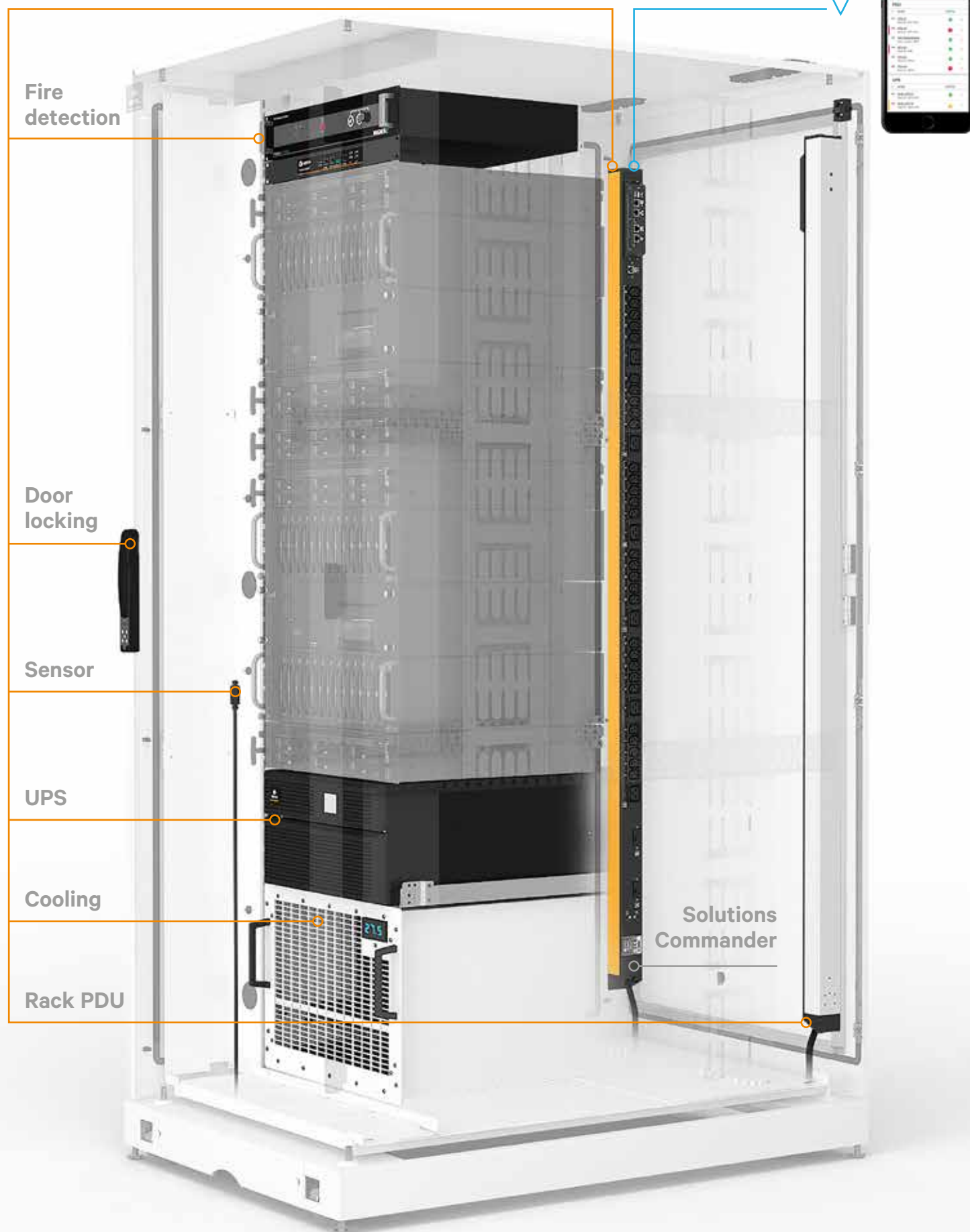- connection option for optional IP camera

Remote monitoring/administration of IT devices

- optional console server, KVM switches and LCD consoles

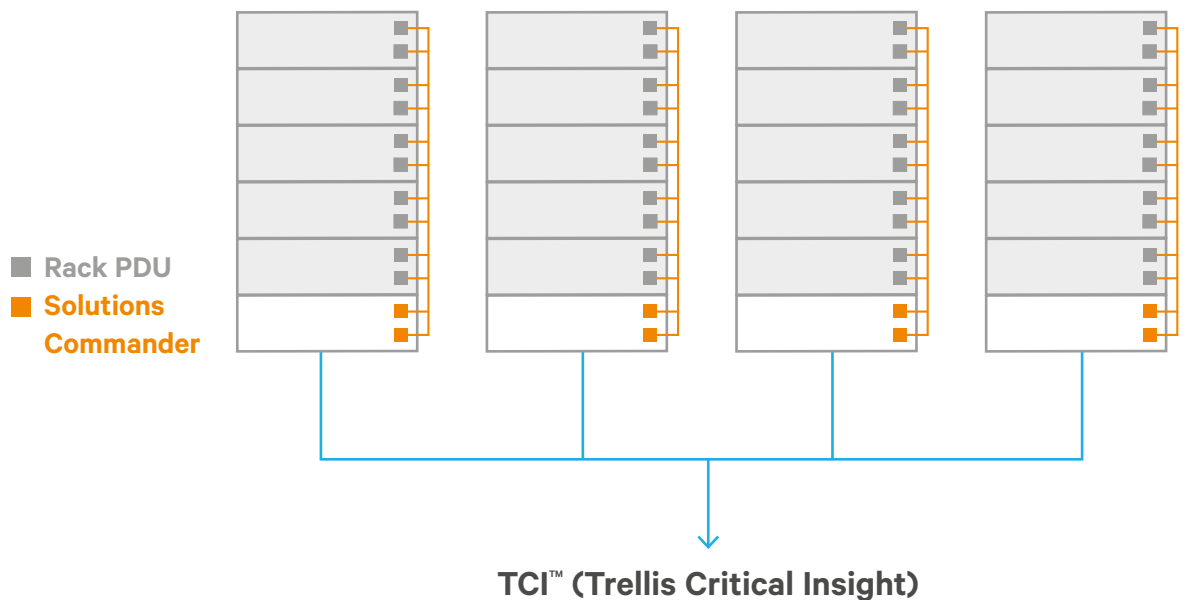### Service

- Installation service
- Maintenance contract
- Remote monitoring/maintenance service

Out-of-band network

Fire
detection

Door
locking

Sensor

UPS

Cooling
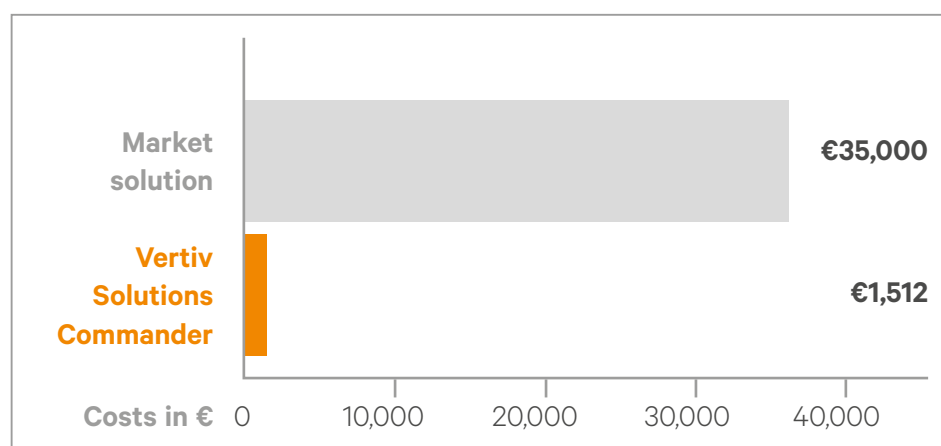
Rack PDU

IP

Solutions
Commander

The Vertiv Solutions Commander in large data centers

The Solutions Commander demonstrates its advantages even in large data centers. Similar to its application in SmartCabinets and Smart Racks, the Solutions Commander serves primarily as a **control unit** for rack rows. Together with management software such as TCI™ (Trellis Critical Insight) for example, it is the ideal addition for easy management of connected systems, such as a rack PDU or door closure, for example, by generating **a single central IP address** which ensures smooth access. An **extensive interface** offers control over all functions.

■ **Rack PDU**
■ **Solutions Commander**

TCI™ (Trellis Critical Insight)

Comparison of conventional solutions with the Solutions Commander in small data centers

	Vertiv™ Solutions Commander	Market solution
Simple installation		
Installation time	**Short, due to plug & play**	Long, due to extensive installation options
Installation outlay	**Low, due to simple installation steps**	High, due to more installation steps by specialized experts
Efficiency		
Infrastructure management	**Smart software for the most important functions (trends, alarm management, logic functions)**	DCIM with extensive functions
Network traffic	**Data of the infrastructure devices is saved on-site in the master/slave principle**	Data is permanently transferred to the DCIM system via the network
Investment costs	**Low, as only one device is needed**	High, due to three different devices (PDU + gateway + DCIM)
Useful life of infrastructure devices	**Existing older devices are raised to a higher security level**	Limited service life due to old hardware
Security		
IP address	**Own, separate network accessible with one IP address**	Each device has its own IP address in the network
Alarm management	**Centralized, non-power-dependent alarm management**	Power-dependent alarm management

Costs reduced with the Solutions Commander

Up to 95% in cost savings with one small data center with 50 rack PDUs

Market solution **€35,000**

Vertiv Solutions Commander **€1,512**

Costs in € — 0 10,000 20,000 30,000 40,000

Advantages and features

Quick and easy installation and operation

- Only one interface and intuitive operation

- A single IP address for up to 50 devices with autoscan function and mass firmware and configuration update

Utmost security

- A primary IP address
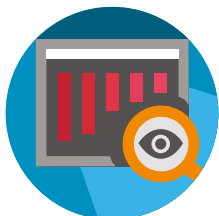
- Encryption via https, SNMPv3

- VPN access

Sustainability

- Security upgrades by means of upstream Solutions Commander for existing, older devices in the data center

Cost savings

- Substantial savings are possible due to functions such as plug & play, mass configuration and FW updates

Visibility

- Clear evaluation of trends, alarms, logics by integrated smart software system

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