



Addressing Challenges to Powering Small to Midsize IT Spaces



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Can You Predict and Manage Infrastructure Costs?

Challenge

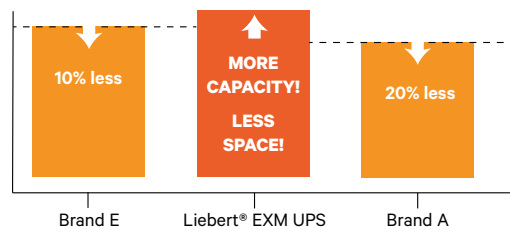
IT demands continue to escalate, but controlling costs becomes more difficult. Investing in an efficient and flexible power solution to manage capital and operating costs is a must.

Consider

Businesses face several factors when it comes to estimating budgets and managing costs. Outdated or ineffective power systems impact your energy costs. Data center power consumption is driving more operators to seek improved efficiencies. In addition, capital budgets are often tight. Striving for low cost of ownership takes into consideration not only utility costs and first costs, but also the cost of space and lost capacity, maintenance/support and opportunity costs (cost of downtime).

How to Solve

Predicting and managing your costs starts with finding the right technologies and partners. Consider highly efficient UPS systems with flexible power capabilities. These advantages will not only help save electricity, but provide the backdrop to manage future costs. Consider a pre-engineered design that can save on installation and be easily deployed. Evaluate a partner who can help your limited IT staff with remote and local power management and installation. You will want to consider UPSs with a small footprint and high power factor to ensure the most power per dollar is being delivered.



How Vertiv Can Help

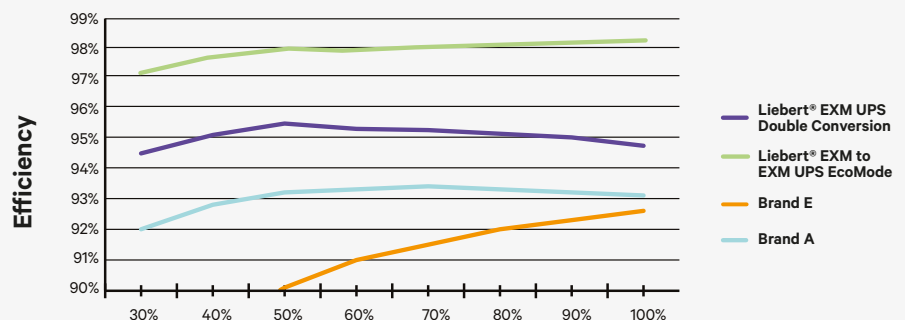
Vertiv provides cost-effective small to midsize power solutions with:

- Highly efficient designs that can provide exceptional operating savings across all load capacities
- ENERGY STAR qualified UPS models
- Optimized ancillaries that work together
- Scalable and/or modular designed solutions that minimize your capital investment to support unpredictable future demands
- Systems that deliver more power in a smaller footprint and minimize installation and cabling costs
- Remote site management capabilities, such as our unique LIFE™ Services remote diagnostics and communications solutions to reduce Mean Time to Repair (MTTR) and increase Mean Time Between Failures (MTBF) to minimize or avoid unplanned downtime



ENERGY STAR
qualified models
available

Efficiency example: Liebert® UPS (40kVA/kW, 208V) in Double Conversion Mode



Based on a 100kVA 100A 100% rated breaker

Can You Deliver the Availability Needed For Critical IT Applications?

Challenge

You recognize that your data operations, first and foremost, must be available. Recent studies* reveal availability is still the #2 concern for facilities under 5,000 s/f, and #1 for centers up to 10,000 s/f in size. As the business demands escalate, your IT systems are enablers to growth. The challenge is to maintain or increase the IT resilience and availability required for the organization to succeed.

Consider

Unavailability is unacceptable. The demand for information is all day, every day. For many facilities, service-level agreements must be met. This requires true uninterrupted power to IT systems. Those struggling with lean operations, tight budgets and staff who may lack UPS expertise can make power management more challenging, increasing the likelihood for errors and unplanned downtime.

How to Solve

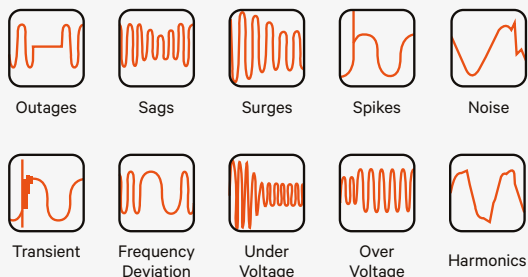
Reliable, resilient power starts with a UPS that offers robust protection from all key electrical disturbances. Look for solutions that guard against the electrical problems that arise in most facilities and provide the redundancy needed. Don't overlook UPS batteries (*ranked the weakest link in any power chain). Seek a UPS system that has the ability to monitor battery health easily and effectively. Finally, choose a support partner with trained field engineers to maintain performance and shorten service time.

How Vertiv Can Help

Vertiv has a 40 year history of providing reliable power system designs to deliver the availability required:

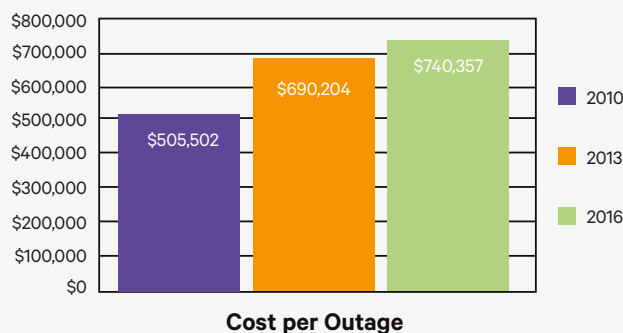
- Easy to use intelligent controls reduce human error and communicate critical status
- Battery monitoring to enable proactive management and reduce failure risks
- Maintenance bypass solutions to avoid powering down IT systems
- Extended battery options for longer-lasting protection
- Certified short circuit withstand ratings
- Flexibility to meet extra capacity/redundancy demands
- Remote service diagnostics to proactively identify problems and prevent or enable a quick, efficient response

Protection from critical power problems



Avoid Downtime Costs

Mean data center downtime costs have increased 38% since 2010.



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How Can You Improve Power System Visibility and Intelligence?

Challenge

Lack of visibility into the power system's performance can lead to costly mistakes and business productivity loss. Asking staff to manage power protection in addition to day-to-day responsibilities could hinder productivity and produce unintended problems.

Consider

Providing staff with easy and better visibility into intelligent power systems along with a method to help manage, interpret and act on the data.

How to Solve

You need power systems that provide instant access to critical operating information. Intelligent, easy-to-use UPS interface panels allow both experienced and inexperienced staff to quickly obtain operating status while reducing the likelihood of human error. If your company lacks resources to manage critical power, you need a partner who can provide both remote and local onsite support to ensure an accurate and timely response.



Unity Card

-  Capacity
-  Temperature
-  Humidity
-  Access
-  Leaks

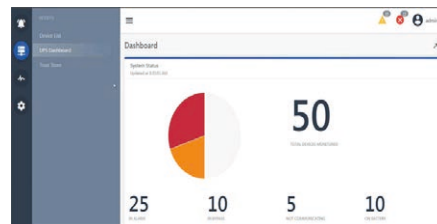
How Vertiv Can Help

Vertiv provides enhanced data insight and visibility with:

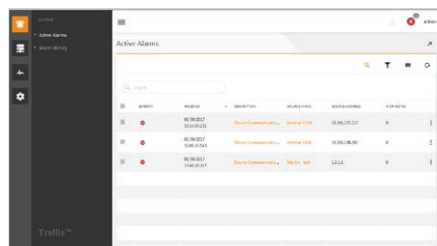
- User friendly, menu-driven monitor panel that supports secure visibility and management
- Network connectivity that allows vital status to be communicated and can be integrated with DCIM and building systems
- Multiple communications paths to ensure connectivity across protocols
- Integrated battery monitoring to proactively identify potential battery issues
- Lifecycle management with continuous remote diagnostics and proactive service dispatch to reduce staff time to monitor and maintain UPSs systems



Environet™



Vertiv™ Power Insight



How Can You Obtain Flexibility and Rapid Deployment?

Challenge

Chances are your company needs applications and systems to be up and running quickly so it can meet business demands. How do you best add, update or modify power systems to support changing IT needs across the computing landscape?

Consider

Escalating demands usually trigger new apps, servers, switches, racks and/or appliances. Each must be kept running without interruption. However, deploying new business systems can impact time, cost and labor. Staff members want the installation process to be as fast and as simple as possible. Partnering with a company that has the know-how and the resources to support deployment, installation and startup may be the answer.

How to Solve

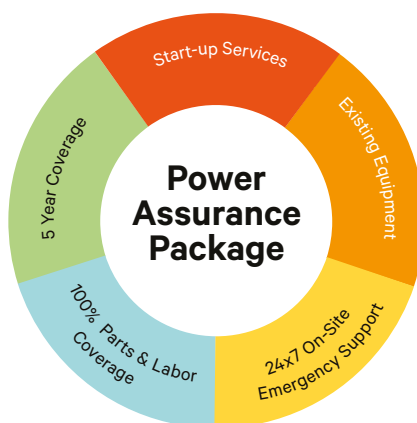
Look for power systems with a flexible design that can meet future capacity or redundancy demands. To accelerate deployment time, consider leveraging scalable platforms and programs that improve configuration, delivery and installation. Count on partners who understand the entire power chain to prevent needless problems.

How Vertiv Can Help

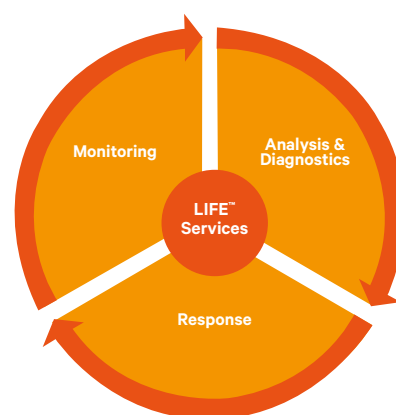
Vertiv helps accelerate deployment with:

- Designs that enable fast, smooth integration
- Robust, flexible ancillary options to meet current and future demands
- Designs that can scale to respond to changes in capacity or redundancy
- Flexible battery run times, power distribution, capacity and redundancy configurations
- Quick, quality field installation support
- Solutions that fit your space requirements

Support services can deliver both remote monitoring and local expertise throughout the infrastructure lifecycle to ensure fast, reliable system performance.



Power Assurance Package



LIFE™ Services

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Vertiv™ Solutions For Small and Midsize It Spaces

Whatever your small or midsize power needs, Vertiv has innovative technologies to address your requirements.



Liebert® EXM UPS
10-250kVA/kW

Liebert® EXM UPS: Offers efficient, reliable and flexible power protection. Scalable power and battery modules. It has a wide range of ancillary options for optimized performance. Parallel for added capacity or redundancy.



Liebert® EXS
10-30 kVA

The Liebert® EXS: Allows quick and easy access to power vital systems with an on-line, three-phase integrated UPS, optimized with a compact footprint. Standard configurations offer reliable and economical power solutions.



Liebert® ITA2 UPS
8,10kVA

Liebert® ITA2 UPS: Provides a reliable, efficient power solution with a space-saving design. Install in a rack or on the floor. Scalable battery run time, optional maintenance bypass cabinet and output distribution pods enhance availability and flexibility. Easy to install.



Vertiv™ Powerbar iMPB
Vertiv™ Geist™ PDU

Vertiv™ Powerbar iMPB: Allows businesses to cost-effectively optimize and adapt power distribution infrastructure over time.

Power Distribution Units: Includes room, row and rack-based electrical distribution.

Vertiv™ VR Rack

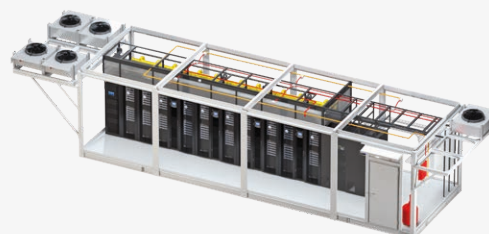
Helps standardize deployments around the world and bring them online faster, supporting a wide variety of equipment, including: servers, storage, switches, routers, PDUs, UPSs, console port servers and KVM switches.



Vertiv has a full line of racks and rack PDUs.

Vertiv™ SmartMod™

A flexible platform, optimized for simplified deployment of critical IT assets. 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.



Power Solutions for All Of Your Applications

Vertiv offers the industry's broadest portfolio of IT infrastructure solutions.

- Network edge spaces
- Midsize data centers
- Large data centers



- Labs
- VoIP
- Branch office IT



- Emergency lighting
- Control rooms
- Diagnostics/testing IT



So what should you do next?

Locate and contact your local business partner for more information.

For more information about these solutions and all others supporting the data center, visit www.Vertiv.com.

