As your increasingly consolidated data center engines run hotter, you have to balance the need for speed with higher cooling costs and potential downtime. We have the people, the partners and the plan to design a more flexible power and cooling solution.
THE CHALLENGES

POWER AND COOLING **TUNE UP YOUR DATA CENTER.**

As you reduce the number of servers in your consolidated data center and increase rack density, the higher power utilization needs require a more efficient cooling solution. Striking a balance between data center availability and efficiency presents several challenges, including:

**MAINTAINING PROPER COOLING** — You need to provide enough cooling to your servers to maintain performance levels while trying to keep cooling costs low. Failure to properly cool your servers can cause them to overheat and crash, resulting in devastating downtime.

**KEEPING POWER INFRASTRUCTURE STABLE** — Power being drawn by your equipment needs to be stable and free from surges. Plus, it must be distributed efficiently so no equipment is strained. Unstable and unprotected power distribution can create slowed server response and, worse, irreversible damage.

**MAXIMIZING VISIBILITY** — Data regarding resource usage, operational status and overall infrastructure health needs to be readily accessible and understandable. Without this information, you will not know until too late that your data center power flows or cooling levels need to be adjusted.

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**POWER USAGE EFFECTIVENESS**

Power Usage Effectiveness (PUE) compares energy entering a data center to the power used to run the computer infrastructure within it. An ideal score is 1.0. Since 2011, the average rating has skyrocketed.

(Source: Data Center Knowledge, May 2013)

Air exiting IT equipment can be 30 degrees warmer than it was when it entered.²

A data center outage can cost more than $7900 per minute.¹
THE SOLUTION

REVVING YOUR **DATA CENTER ENGINES.**

Powering and cooling consolidated servers makes up a big chunk of IT spending. But when you try to minimize these costs without a solid road map and knowledgeable pit crew behind you, you risk downtime and damage to your data center. We can help you design a power and cooling solution that’s flexible for now and scalable for the future.

**FLEXIBLE AND POWERFUL COOLING RESOURCES** — Your cooling infrastructure should be flexible enough to handle the increasing power and rack density of your current consolidated data center as well as be scalable for the future.

**SMART MANAGEMENT SOFTWARE** — Having easy access to clear information regarding resource usage, operational status and the overall health of your data center is critical. With the right software, you can strike the perfect balance between data center availability and efficiency.

**MODULAR POWER** — An adaptable power protection and control system requires two critical components:

- **Uninterruptible Power Supplies (UPSs)** allow you to right-size your power flow and make on-demand adjustments as your power quality and capacity needs change. They also serve as temporary battery backup in case of outage.

- **Power Distribution Units (PDUs)** control power capacity and functionality and provide visibility into your power needs. They ensure that you know your power setup is functioning properly and not close to outage.

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THE BENEFITS

**STEERING YOUR DATA CENTER TO THE CHECKERED FLAG.**

With a flexible and scalable power and cooling solution, your organization will enjoy many benefits, such as:

**REduced COSTS**: By building a power and cooling plan that maximizes the efficiency of your resource usage, you will be able to take a bite out of a big chunk of IT spending.

**IMPROVED VISIBILITY AND OPERATIONAL EFFICIENCIES**: The management systems deployed as part of the solution can provide insights into operational efficiencies that go beyond power and cooling. You may uncover a need for more dynamic data center equipment or design a better power distribution plan based on usage patterns.

**IMPROVED INFRASTRUCTURE FLEXIBILITY**: The modular nature of a well-designed power and cooling solution will facilitate future scalability as your organization grows.

**IMPROVED UTILIZATION**: By building measurability into your power and cooling infrastructure, you gain insight into device utilization rates, allowing you to maximize them and further improve data center efficiency.

75% of organizations that implemented power demand management initiatives saw a reduction in energy costs.
WHY CDW?

YOUR POWER AND COOLING ROAD MAP.

THE PEOPLE — Our account managers have expertise and receive training in new power and cooling developments. Plus, with deep knowledge, our solution architects can guide you through every stage of solution preparation and deployment.

THE PARTNERS — Our partnership with the best in the power and cooling industry gives you access to some of the finest products on the market. We work with many vendors so you can be sure you are getting the right components for your unique situation.

THE PLAN — Our experts are with you from initial assessment and requirement discovery to site survey and product selection, all the way through to installation, management and tuning. And they’re there for ongoing support throughout the product lifecycle.

OUR PARTNERS

PARTNERS WHO GET IT.

APC by Schneider Electric is a global leader in power and cooling services. APC delivers well-planned, easily installed and well-maintained solutions throughout their lifecycle. Through its strong commitment to innovation, APC provides energy-efficient solutions for critical technology and industrial applications.

Tripp Lite offers complete data center solutions — from UPS Systems and PDUs, to Rack and Cooling, to KVMs and connectivity. Take advantage of their complimentary assessment service to ensure your facility is properly powered, protected and configured.

THE LEADERBOARD

Blog post – Converged Infrastructure and Power: Things to Keep in Mind

Read more about the benefits of converged infrastructure from one of our power and cooling industry thought leaders at CDWsolutionsblog.com/powercool

SEE FOR YOURSELF

Infographic – Power and Cooling

For more information about how a flexible and scalable power and cooling solution can improve your data center performance, check out our infographic.

To learn more, contact an account manager, call 800.800.4239 or visit CDW.com/power-cooling