An Overview of Data Center Optimization

THE SITUATION | THE CHALLENGES | THE SOLUTION | THE BENEFITS
Your data center is the engine that drives your IT infrastructure and optimization is the key to its potential. As consolidation and distribution grow in popularity, you have more tools than ever to get ahead. But how do you keep your data center safe and secure while pushing it to the limit?

An optimized data center built by a crew of experts can put you on the fast track to a competitive advantage.

IT leaders rank data center consolidation as their top IT infrastructure priority.¹

THE RACE IS ON.

Every day, organizations are making smarter use of new technology to get out in front of the competition:

- Software-defined data centers
- Distributed data centers
- Consolidation
- Cloud
- Mobility
- Converged infrastructure
THE CHALLENGES

You want to maximize your data center’s performance, but there are a few speed bumps in your way. They include:

VIRTUALIZATION UNCERTAINTIES — Networking, storage and computing virtualization are expected to grow 97% per year through 2018. But there are still a lot of unknowns. Any missteps can cause downtime, costing an average of $7,900 per minute.³

CONSOLIDATION BARRIERS — 78% of IT managers are driving toward smaller data centers and more efficient usage.¹ This puts pressure on their IT teams to execute consolidation perfectly.

OVERHEATING — Servers already run hot, putting out air 30 degrees warmer than they take in.⁴ More power in a smaller space means even more heat. Without ample cooling, they’ll crash and burn.

LOOSE BOUNDARIES — With virtualization and cloud computing, there’s no limit to the resources you can use. But your IT team still has limits on how much technology it can integrate and safeguard.

DATA SPRAWL — In our interconnected world, data is moving in many different directions. This leads to duplicate data that’s hard to chase down, organize and keep secure.

HOW TO GET PAST THEM:

Stay Flexible — Technology is constantly moving forward. When new products are introduced, a flexible and scalable data center can hit the ground running.

Stay Protected — Backup solutions, security protocols and business continuity capabilities can put distance between security threats and your most important data.
REV UP YOUR INFRASTRUCTURE.

Optimization is more than a boost for your data center. It’s critical to helping you stay on pace for success in the future. We get it. That’s why we have the technology, partnerships and expertise to bring you a winning solution.

OUR OPTIMIZATION CREW CAN FINE-TUNE YOUR DATA CENTER IN THREE KEY STEPS:

1. INFRASTRUCTURE CONVERGENCE
   We’ll help you combine computing, networking and storage under a single management system so your data center can run more smoothly. This creates a smarter, more scalable infrastructure that includes:
   - Virtualization software
   - Servers
   - Networking components
   - Data storage devices

2. POWER AND COOLING
   We offer modular, scalable power and cooling solutions to keep energy consumption and costs low and prevent downtime due to overheating. They include:
   - Modular power — UPSs and PDUs that manage energy and record usage data
   - Smart management software — Tools to help you monitor system health and efficiency
   - Cooling systems — Powerful and flexible units that can cool your densest racks

3. STORAGE AND BACKUP
   We’ll help you beat data sprawl by standardizing and simplifying data storage with smarter backup solutions. They include:
   - Storage area networks
   - Storage management software
   - Servers
   - Archiving software
   - eDiscovery software
   - Data duplication
   - Storage virtualization
From start to finish, we ensure that all of your data center needs are met — no matter how big or small. The support we provide throughout your solution lifecycle includes:

**Assessment** — Our certified solution architects conduct onsite evaluations and find opportunities to give your data center a boost

**Design** — Our team of experts helps you design a data center solution around your specific needs

**Planning and Deployment** — We create a roadmap for a strategic implementation that minimizes disruptions and downtime

**Post-Sale Support** — If your products or solutions ever need a quick tune-up, our experts are here to help

**Managed Services** — Lighten the load on IT by letting us manage various elements of your data center, such as power and cooling, network services, storage, security and more
There are big prizes waiting for you when you win the race to optimization. Better data center efficiency leads to less energy consumption, which in turn leads to lowered operating costs of power and cooling. And that’s just the start.

THE BENEFITS

WELCOME TO THE WINNER’S CIRCLE:

EFFICIENCY
With more streamlined processes, your data center can function more efficiently and serve your workforce better.

SIMPLICITY
By taking steps to optimize one or many aspects of your data center processes, management will be a far simpler proposition for IT.

SCALABILITY
By properly optimizing your data center, you can be sure that it will be scalable enough to handle your present demands and whatever demands the future brings.

STABILITY
With your data center being the heart of your organization, you improve your organizational stability by adding any level of flexibility and security to the data center.

SAVINGS
By consolidating your IT infrastructure and/or instituting more efficient power and cooling protocols, you'll ultimately see cost savings for your organization.
As your data center expands, you need a partner that can help you plan, consolidate and optimize. We can help with the people, the partners and the plan to get your data center up to speed.

**WHY CDW?**

**THE PEOPLE**
Along with an account manager to guide you through the planning and implementation, our experienced and industry-certified solution architects can recommend a customized path for your organization to follow.

**THE PARTNERS**
Partnerships with leading vendors like Cisco, HP and Symantec provide us with the depth of experience to evaluate and address your needs. We also offer assessment services, giving you the option for present or future use of the cloud.

**THE PLAN**
We can help you evaluate your data center to find opportunities in storage, networking, servers, virtualization, and power and cooling. We’ll work with you to find the best way to lower your IT costs while leveraging your existing technology.

**WE CAN HELP**

**DATA CENTER AND DISCOVERY WORKSHOPS**
Meet with a data center solution architect to assess the state of your data center and develop an IT strategy in our data center workshop. Then we’ll recommend several of our discovery workshops based on your needs.

**CONFIGURATION SERVICES**
We can help build a preconfigured solution for your data center in our state-of-the-art configuration center. Our services include hardware, software, rack, BIOS and firmware configuration.
While innovation comes rapidly in the IT industry, basic server architectures haven’t changed for decades. That’s why Cisco answered the need for innovation by introducing the Cisco Unified Computing System—which integrates computing, high-speed networking, storage access and virtualization in one system. Since its introduction, IT departments have dramatically reduced data center complexity.

HP ProLiant servers provide the latest Intel Xeon processing power combined with outstanding management and essential data protection features for a secure, high-availability platform to meet your needs.

Symantec Backup Exec protects virtual and physical environments, simplifies both backup and disaster recovery, reduces storage with integrated data deduplication and offers strong recovery capabilities in a single solution. Backup Exec is licensed per agent and option or per front-end TB (capacity).

Cloud architectures running on virtualized storage pools may improve the speed of deploying and provisioning new servers—but the underlying storage sprawl consisting of DAS, NAS, SAN deduplication and resiliency solutions is only getting worse.

In this webinar, we’ll show you how to address those challenges head on.

Watch it now at CDW.com/sprawl >>

To learn how optimization can help drive your organization, call 800.800.4239 or visit CDW.com/datacenter