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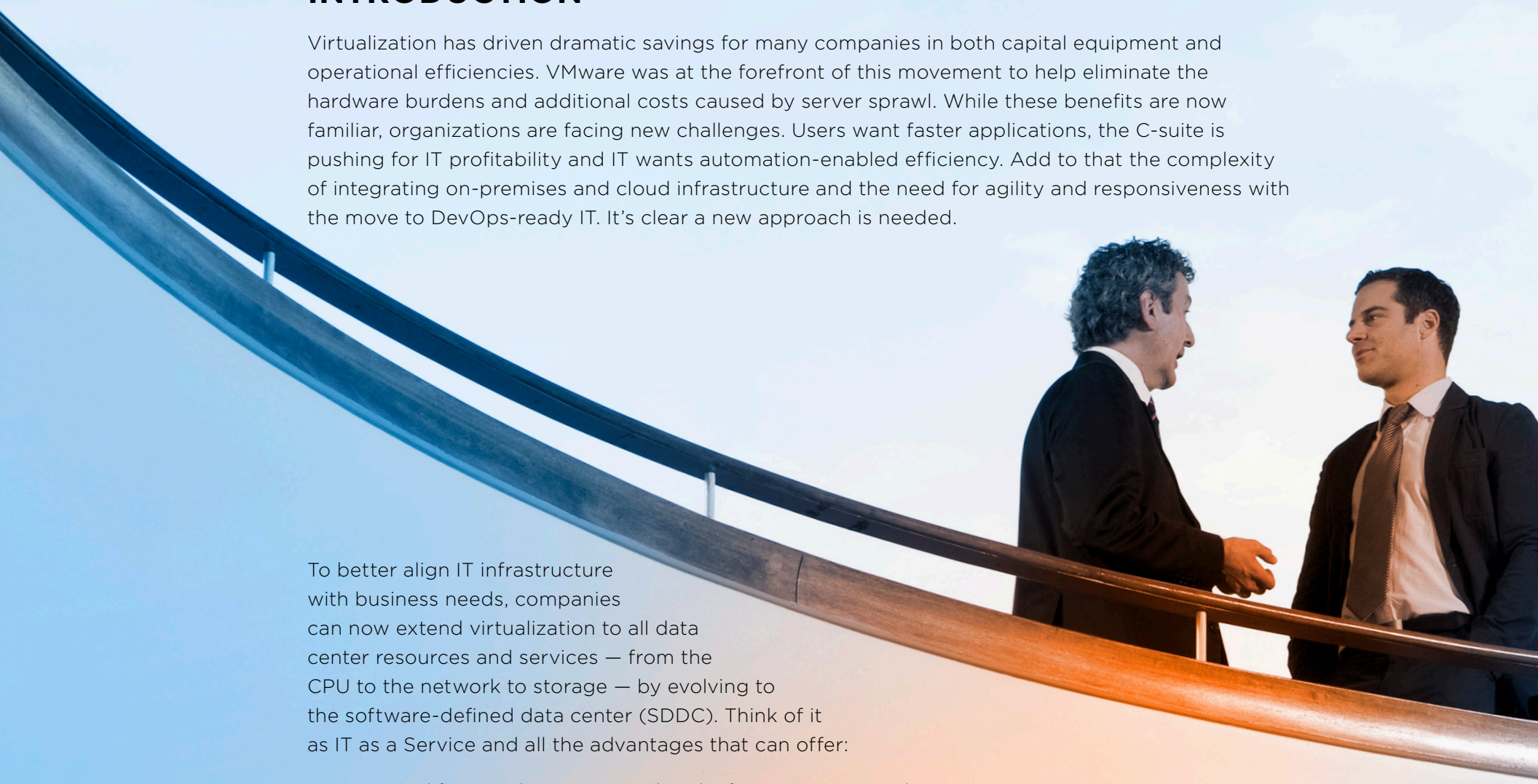
The Lenovo and VMware Software-Defined Data Center

WHERE IT AGILITY DELIVERS BUSINESS ADVANTAGE

INTRODUCTION

Virtualization has driven dramatic savings for many companies in both capital equipment and operational efficiencies. VMware was at the forefront of this movement to help eliminate the hardware burdens and additional costs caused by server sprawl. While these benefits are now familiar, organizations are facing new challenges. Users want faster applications, the C-suite is pushing for IT profitability and IT wants automation-enabled efficiency. Add to that the complexity of integrating on-premises and cloud infrastructure and the need for agility and responsiveness with the move to DevOps-ready IT. It's clear a new approach is needed.



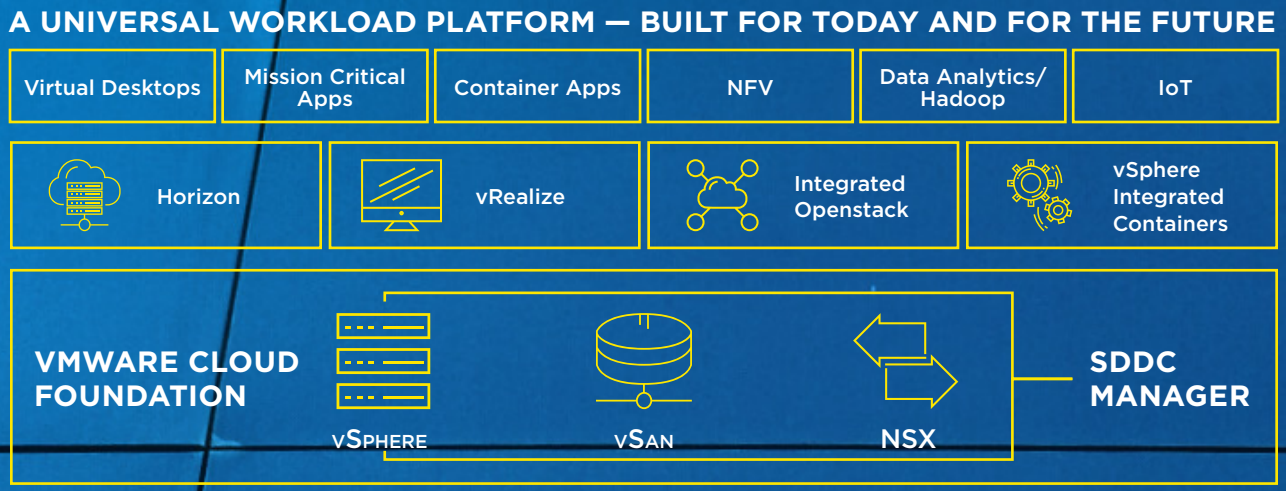
To better align IT infrastructure with business needs, companies can now extend virtualization to all data center resources and services — from the CPU to the network to storage — by evolving to the software-defined data center (SDDC). Think of it as IT as a Service and all the advantages that can offer:

+ Simplify virtual server sprawl and infrastructure complexity
+ Ability to adapt, optimize performance and scale on demand
+ Faster application provisioning and deployment
+ Opportunity to streamline IT infrastructure, processes and costs
+ Increased focus on IT innovation instead of day-to-day management

With higher efficiency, lower costs, better resource utilization and improved staff productivity, the SDDC offers companies a powerful path to the future of corporate infrastructure. It's data center modernization at its most impactful. And VMware and Lenovo are leading the way.

THINK EVOLUTION, NOT OVERHAUL

For companies that have enjoyed the advantages of VMware vSphere for virtualization, the transition to the software-defined data center is one of progressive improvement. It's a stepped process that starts with improved operations management and then expands the benefits of virtualization from compute to the networking and storage layers. By replacing hardware with software and automating process controls, companies have even greater opportunities for more CapEx and OpEx savings. And with the flexibility to use existing hardware or add equipment with the price–performance balance that best suits the demands of your business, the savings can be substantial.



OPEN TO IMPROVEMENT

Many companies are seeing that legacy infrastructure is expensive, delivers poor performance and makes deployments inefficient and hard to maintain. The software-defined data center helps you get more out of your hardware than ever. The benefits of your vSphere virtualization can be expanded to improve storage, networking and even your cloud interfaces. And by optimizing on-premises hardware, everything can work better together. VMware takes an open-infrastructure approach, so you have the flexibility to choose the hardware that best fits the price–performance requirements of your different workloads. That means you're no longer stuck with vendor agendas to keep their legacy systems and proprietary protocols in place.

With an open provider like Lenovo, you can optimize your SDDC with the right hardware for your immediate needs and the flexibility to expand incrementally. You can vary equipment performance levels to more cost-effectively address the demands of different parts of your organization. And you can integrate seamlessly with other hardware systems. The most important thing is that you have options.

A GREAT PLACE TO START: STORAGE

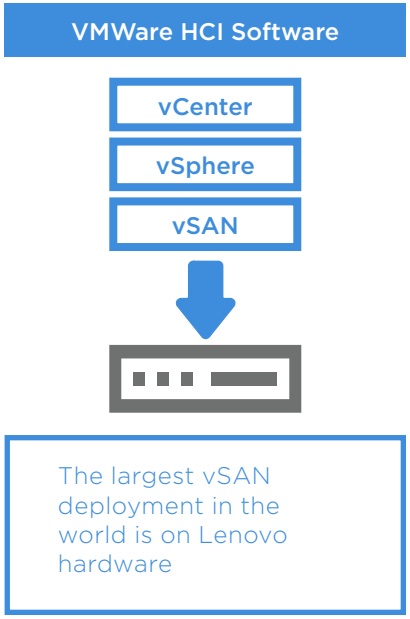
Virtualizing storage is a natural first step in the transition to the software-defined data center. Using VMware vSAN, you can eliminate the cost and complexity of separate storage arrays for more predictable scaling. With vSAN, you have a software-defined storage solution that is seamlessly embedded in the hypervisor to deliver enterprise-ready, high-performance shared storage. Think flash performance at a fraction of the cost of traditional arrays. You can count on savings up to 60% over all-flash arrays because you no longer have the expense of managing separate compute hosts, administrators and resources. This means measurable savings on power and cooling.

"VMware is excited to be partnering with Lenovo to address the surging hyper-converged infrastructure market. Customers can tap into the rich value of Lenovo hardware and the simplicity and agility of VMware vSAN in a fully qualified HCI solution. It's a jointly qualified solution that eliminates uncertainties."

- Lee Caswell, VP Storage and Availability Products, VMware

"Lenovo delivers world-record performance for virtualized workloads and storage performance per watt."

(SOURCE: SPECvirt sc*2013 and SPECvirt sc*2013_PPW as of March 30, 2016)



The largest vSAN deployment in the world is on Lenovo hardware

EXPONENTIALLY MORE EFFICIENCIES THROUGH AUTOMATION

A major advantage of the software-defined data center is its ability to automate resource deployment and management at every layer. By standardizing best practices and reducing manual efforts to implement, oversee and reclaim inactive resources for reuse, SDDC keeps your IT staff focused on value-added efforts. With VMware, you have a single pane of glass for managing compute, networking, storage and cloud environments. And with Lenovo XClarity, that control extends to the hardware level, with fully integrated management capabilities that cross the physical/virtual divide.

By helping organizations remove functional silos and reduce virtual sprawl, a VMware-based SDDC can help you deploy new applications, new tiers of databases and big data cloud solutions faster. This level of automation delivers powerful benefits:

+ Reduce response time to requests
+ Better manage existing resources
+ Increase visibility into who is using what resources
+ Improve utilization
+ Enable costing, usage metering and efficient chargeback
+ Eliminate over-provisioning while delivering right-sized resources and service levels for what users need to do
+ Speed time to market
+ Increase developer productivity

With Lenovo and the VMware software-defined data center, you can deliver, manage and optimize infrastructure and applications for any need — across vendors, on premises or in the cloud. No hybrid environment is too complicated.

THE CLOUD MADE CLEARER

For many IT organizations, the convenience of the cloud has given way to the complexity of a combined environment. One of the advantages of the software-defined data center as envisioned by VMware is a common management platform, unified architecture and common security model that extends to all aspects of your hybrid cloud environment. When it comes to running business critical applications in a hybrid environment, across multiple ROBO sites, or for implementations of VDI, the VMware software-defined data center can help you reduce risk and lower costs.

With private and hybrid cloud infrastructure solutions based on validated, end-to-end architectures, VMware's approach to SDDC can help you minimize complexity, rein in costs and make sure your IT is keeping up with the pace of business.

Lenovo XClarity reduces hardware deployment time by 48% and integrates seamlessly with VMware vRealize.

Lenovo

RESPONSIVE TODAY.
READY FOR TOMORROW.

The software-defined data center is the key to ensuring you're ready for any application, any scale and any user demand. For IT, it is the essential next move in ensuring DevOps readiness and making your development teams as productive as possible. At the same time, it's important to think about the future. To ensure your SDDC evolution delivers the most value over the long term, you must also think carefully about the underlying hardware. Yes, you'll need less equipment, but it's important to make sure that the hardware you are choosing gives you the greatest flexibility and maximum capabilities for your VMware investments. Lenovo servers are the most reliable in the industry and offer world record performance for virtualized workloads and server and storage performance per watt. When built on the latest Lenovo System x servers, storage and networking hardware, VMware SDDC software provides everything you need to build a flexible, easy to manage and responsive enterprise infrastructure. Plus, you'll have peace of mind knowing that you're working with the company ranked number one in customer satisfaction.

From desktops and mobile, to storage and networking, to servers and the cloud, if you're ready to drastically reduce IT complexity and embrace modern workloads with confidence, integrated solutions from VMware and Lenovo are the answer. This is the essence of data center modernization and the key to innovation in your organization.