WEI INSIGHTS WHITE PAPER

SOFTWARE DEFINED DATA CENTER (SDDC): CONVINCING THE C-SUITE

As an IT leader, you have read everything possible about the Software Defined Data Center (SDDC)—articles, white papers, analyst reports—and you are convinced that an SDDC would have a significant impact to your organization's bottom line. The only hurdle you face now, is convincing upper level management that moving to an SDDC infrastructure is an endeavor that is imperative to your company's future growth. This white paper summarizes key points to discuss with upper management, highlighting the most important benefits of moving to an SDDC infrastructure: lowering operational costs, reducing capital expenditure, and powerfully transforming the role of IT for the business.

WHY TRADITIONAL HARDWARE DATA CENTERS ARE INEFFICIENT AND INEFFECTIVE

Since the idea of software-defined-everything is relatively new, chances are your IT infrastructure currently consists of specialized hardware and dedicated devices designed to increase performance, minimize latency, and provide redundancy. While these devices do their jobs well, often they exist in siloes and at one point or another they are underutilized. An all-hardware model is becoming unsustainable due to costly upgrades, incompatibility among systems, and high costs of over purchasing for tomorrow rather than purchasing for your current needs today. In addition, you are locked in by vendors for hardware specialties, and incompatibility among vendors can cause major disruptions and often come with increasing manufacturing and maintenance costs.

A hardware-driven infrastructure is a reactive one, requiring constant hardware and server upgrades to meet an ever-increasing demand on resources. Further, some of your company stakeholders may require bandwidth and other services that your current infrastructure does not support. This leads those stakeholders to seek such services outside of the internal IT team,

bypassing the IT organization altogether. In fact, worldwide, according to Gartner, 38 percent of IT expenditures are beyond the control of the IT organization.[1]

SDDC: NEXT GENERATION DATA CENTER

A true Software Defined Data Center exists on-premise, but the flexibility of an SDDC allows for resources to also be moved off-premise, such as to a private or public cloud environment, offering a hybrid alternative.

"At the core of the software-defined datacenter is an abstracted and pooled set of shared resources," writes Forrester analyst Dave Bartoletti. "But the secret sauce is in the automation that slices up and allocates those shared resources on-demand, without manual tinkering. This is how the largest public clouds work today, but it's not how the bulk of large enterprise datacenters work."[2]

While many businesses utilize public cloud infrastructure to manage their applications and/or infrastructure, often enterprises are not comfortable giving up that much control over their data, storage, and network environment. SDDC eliminates that concern by existing on-premise, yet also allowing for the flexibility to move some or all of its resources to a cloud environment, now or in the future.

REDUCE CAPITAL EXPENDITURE

Virtualization was the first step in moving toward a Software Defined Data Center. Virtualizing several servers, for example, freed IT from maintaining a host of physical servers, greatly decreasing hardware footprint. However, virtualization does not go far enough, in that the networking and data storage components are still complex parts of the IT infrastructure. With ever-increasing volumes of data, data centers continue to build out their infrastructure in order to outpace the workload conditions, quickly eating up capital expenditure.

With SDDC, CapEx budgets stay relatively the same while the IT organization supports the growth and scale of the business. The pooling of resources (compute, storage, and network workloads) dramatically decreases service unit costs and allows capacity for peak workloads without any additional hardware resources.

Further, SDDC is not limited to on-premise, but can also easily utilize public and private cloud services to implement a hybrid cloud approach. This provides additional CapEx savings through the ability for the SDDC administrator to use machine learning, capacity planning, and manage security policies automatically and to the varying degrees necessary.

LOWER OPERATIONAL COSTS

A Software Defined Data Center provides streamlined and automated data center operations that can reduce operational expenditure (OpEx) by as much as 56 percent.[3] With traditional hardware data center infrastructure, capacity planning, compliance, and monitoring are all manual efforts.

With SDDC, these efforts are automated, freeing up IT to focus on adding value that positively impacts the organization's bottom line. The most significant cost savings include reduced deployment time and the ability to scale back when resources are no longer needed or required.

A Software Defined Data Center welcomes an opportunity for the IT department to become true technical advisors to the business. IT spends less time putting out fires and transforms into a proactive business unit, elevating IT capabilities to a new level.

BACKUP & DISASTER RECOVERY

Backup and disaster recovery solutions represent a significant capital expenditure in traditional IT architecture, but that is dramatically reduced with SDDC. The hardware needs of both the local site and the recovery site are reduced or eliminated, lowering CapEx, while also lowering OpEx by having the SDDC manage application availability and data protection. The SDDC allows for flexibility in designing recovery and failover solutions because the SDDC calculates workload differences in the underlying hardware, making failover automatic.

Further, SDDC can be configured to failover to off-premise hybrid clouds to simplify disaster recovery with no additional CapEx or OpEx to support the backup site. This built-in flexibility takes nothing more than the IT administrator giving the go-ahead to switch over to the failover or backup system. One simple "go-live" order from the IT admin takes the place of an entire team handling the hardware, configuration, network, bandwidth and applications priorities of the failover system.

Backup and DR best practices require an off-site location beyond 100 miles from the original location. However with the SDDC you could remove your failover or backup site costs completely, as failover will be done on-premise within the SDDC, or in the cloud infrastructure, if you have a full backup and DR cloud strategy deployed.

MOVING TO A SOFTWARE DEFINED DATA CENTER

If SDDC is on your IT roadmap, you're in good company. By 2020, Gartner predicts the programmatic capabilities of an SDDC will be considered a requirement for 75 percent of Global 2000 enterprises that seek to implement a DevOps approach and a hybrid cloud model. "I&O leaders can't just buy a ready-made SDDC from a vendor," said Mr. Russell. "First, they need to understand why they need it for the business. Second, they need to deploy, orchestrate and integrate numerous parts, probably from different vendors."[4]

We've reviewed the *why* move to SDDC and now it's time to consider the *how*. Moving to an SDDC can be achieved in several ways, but the most important element to remember is that it is a journey. Companies who see success often use a phased approach without disrupting existing systems and infrastructure, and often work with a collaborative IT partner along the way. Some businesses choose to move some of their applications or platforms to the hybrid cloud, while slowly transitioning their existing infrastructure into software-defined components. Here are three ways businesses transform their data center into an SDDC.

1. **Do It Yourself Approach.** Businesses choose to buy selected software-defined components, including hardware and software, separately and install and configure them on their own.
2. **Integrated Software-Defined Components.** Businesses choose to buy software-defined components, such as servers, switches, and storage that are combined and sold in a single chassis.
3. **Collaborative SDDC Journey.** Businesses choose to engage with a qualified partner with extensive experience in all aspects of the SDDC, including server, storage, network virtualization, and cloud management.

The three methods above are a matter of choice for each company, but the ultimate outcomes of moving to a Software Defined Data Center are positive. Not only does the SDDC significantly lower CapEx and OpEx, but it is a powerful transformer of IT as a whole. No longer is IT reactive and labeled as a cost-center. Individuals from each key IT function – server, network, storage, security, and disaster recovery—are freed up to strategize on the best way to solve business problems rather than get pulled into the weeds of hardware, software, and load-balancing headaches.

ABOUT WEI

WEI is an innovative, full service, customer centric IT solutions provider.

Why WEI? Because we care. *Because we go further.*

At WEI, we're passionate about solving your technology problems and helping you drive your desired business outcomes. We believe in challenging the status quo and thinking differently. There are a lot of companies that can take today's technology and create a great IT solution for you. But we do more. We go further. And we have the customer, vendor and industry awards to prove it. WEI is a premier technology partner, who always puts our customers first while providing the most innovative solutions for over 25 years.

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TALK TO WEI TODAY

WEI has extensive experience in helping organizations deploy the software defined solutions that transform the data center. Our engineers have the product knowledge and implementation experience that will help position your organization for success. Contact us today to get started on your SDDC journey.

Sources

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