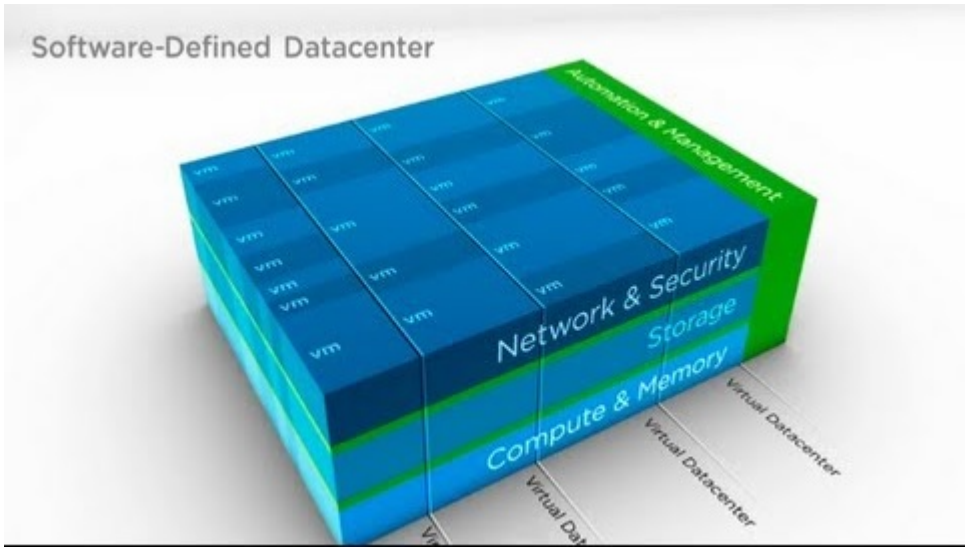
Rethinking Your Data Deduplication Strategy in the Software-defined Data Center

Data Centers Going Software-defined

There is little dispute tomorrow's data center will become software-defined for reasons no one entirely anticipated even as recently as a few years ago. While companies have long understood the benefits of virtualizing the infrastructure of their data centers, the complexities and costs of integrating and managing data center hardware far exceeded whatever benefits that virtualization delivered. Now thanks to technologies such as such as the Internet of Things (IoT), machine intelligence, and analytics, among others, companies may pursue software-defined strategies more aggressively.



The introduction of technologies that can monitor, report on, analyze, and increasingly manage and optimize data center hardware frees organizations from performing housekeeping tasks such as:

- Verifying hardware firmware compatibility with applications and operating systems

- Troubleshooting hot spots in the infrastructure
- Identifying and repairing failing hardware components

Automating these tasks does more than change how organizations manage their data center infrastructures. It reshapes how they can think about their entire IT strategy. Rather than adapting their business to match the limitations of the hardware they choose, they can now pursue business objectives where they expect their IT hardware infrastructure to support these business initiatives.

This change in perspective has already led to the availability of software-defined compute, networking, and storage solutions. Further, software-defined applications such as databases, firewalls, and other applications that organizations commonly deploy have also emerged. These virtual appliances enable companies to quickly deploy entire application stacks. While it is premature to say that organizations can immediately virtualize their entire data center infrastructure, the foundation exists for them to do so.

Software-defined Storage Deduplication Targets

As they do, data protection software, like any other application, needs to be part of this software-defined conversation. In this regard, backup software finds itself well-positioned to capitalize on this trend. It can be installed on either physical or virtual machines (VMs) and already ships from many providers as a virtual appliance. But storage software that functions primarily as a deduplication storage target already finds itself being boxed out of the broader software-defined conversation.

Software-defined storage (SDS) deduplication targets exist that have significantly increased in storage capabilities. By the end of 2018, a few of these software-defined virtual appliances scaled to support about 100TB or more of capacity.

But organizations must exercise caution when looking to position these available solutions as a cornerstone in a broader software-defined deduplication storage target strategy.

This caution, in many cases, stems less from the technology itself and more from the vendors who provide these SDS deduplication target solutions. In every case, save one, these solutions originate with providers who focus on selling hardware solutions.

Foundation for Software-defined Data Centers Being Laid Today

Companies are putting plans in place right now to build the data center of tomorrow. That data center will be a largely software-defined data center with solutions that span both on-premises and cloud environments. To achieve that end, companies need to select solutions that have a software-designed focus which meet their current needs while positioning them for tomorrow's requirements.

Most layers in the data center stack, to include compute, networking, storage, and even applications, are already well down the road of transforming from hardware-centric to software-centric offerings. Yet in the face of this momentous shift in corporate data center environments, SDS deduplication target solutions have been slow to adapt.

It is this gap that SDS deduplication products such as Quest QoreStor look to fill. Coming from a company with "software" in its name, Quest comes without the hardware baggage that other SDS providers must balance. More importantly, Quest QoreStor offers a feature-rich set of services that range from deduplication to replication to support for all major cloud, hardware, and backup software platforms that comes from 10 years of experience in delivering deduplication software.

Free to focus solely on delivering a SDDC solution, Quest QoreStor represents the type of SDS deduplication target that

does truly meet the needs of today's enterprise while positioning them to realize the promise of tomorrow's software-defined data center.

To read more of DCIG's thoughts about using SDS deduplication targets in the software-defined data center of tomorrow, follow this link.