

Solution Showcase

Introducing the Commvault HyperScale Appliance

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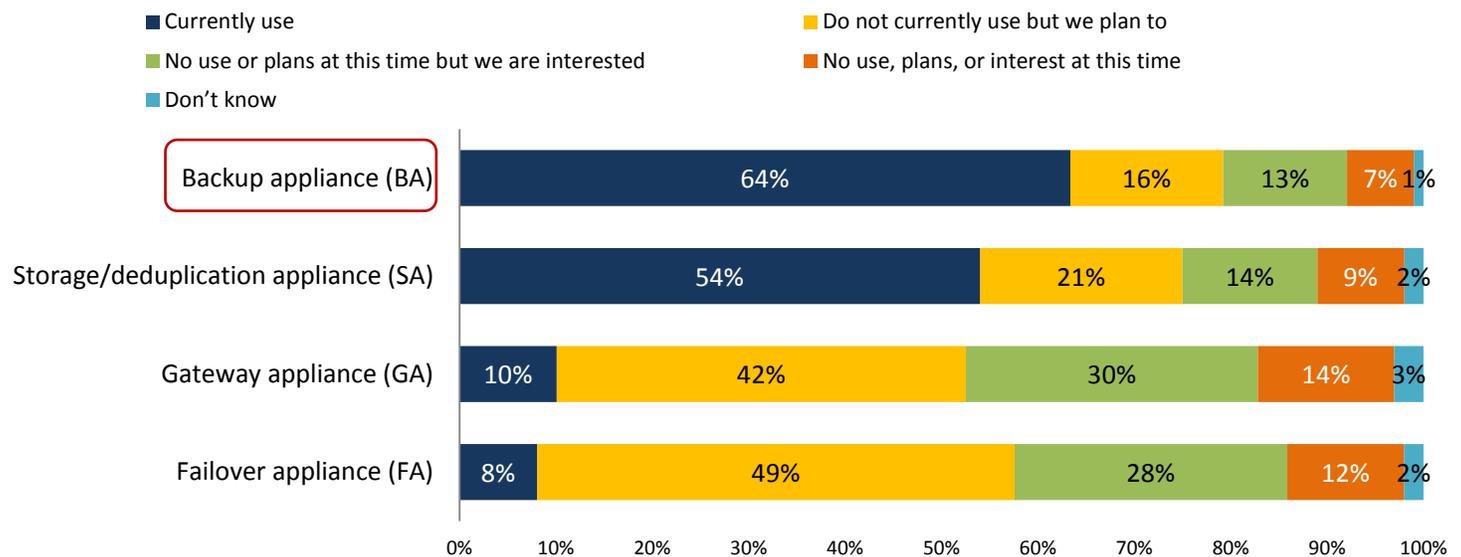
Abstract: For more than two decades, Commvault has justifiably prided itself on being hardware independent—it is a philosophy Commvault kept to during its recent announcement of a validated reference design program to ensure right-sized, better-together solutions with myriad hardware partners. But some Commvault customers and prospects simply want a completely turnkey experience. In other words, they want a data protection appliance. Commvault listens zealously to its customers and partners, and it has decided to deliver its own appliance to meet those requests.

Introduction

For various compelling reasons, a great number of organizations are using data protection appliances (DPAs) in some form today. According to ESG research (see Figure 1),¹ the backup appliance is among the most often-used types of DPA.

Figure 1. Organizations' Usage of Data Protection Appliances

Please indicate your organization's usage of or plans for each of the following appliances.
(Percent of respondents, N=299)



Source: Enterprise Strategy Group

¹ Source: ESG Research Report, [The Shift Toward Data Protection Appliances](#), March 2015.

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Figure 1 also shows that it is reasonable to consider a couple of other data protection appliances as being “mainstream” now, too. Many organizations started their DPA journeys simply by addressing their capacity shortages with storage appliances—including deduplicated disk systems and cloud gateways with on-premises local disk linked transparently to cloud storage.

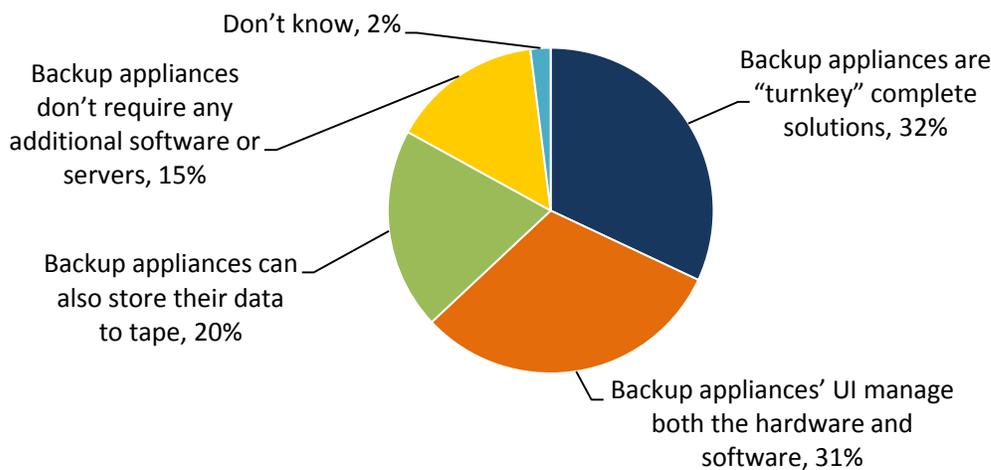
However, both dedupe systems and cloud gateways still rely on third-party backup or archival software to achieve the desired protection outcomes. A number of organizations would rather use a “solution” that is self-contained and immediately usable: an appliance complete with its own storage capacity (local disk with or without cloud supplement) and its own data-moving software engine for backup/archiving.

Why—and Where—Data Protection Appliances Must Evolve

A couple of years ago, ESG noticed an interesting trend in regard to IT organizations’ sentiments about DPAs, particularly related to why some IT teams were deciding to deploy a turnkey appliance instead of using self-managed software and a deduplication target. Some survey respondents told ESG they preferred a turnkey approach at least in part because it allowed them to manage hardware and software through a single set of instrumentation (see Figure 2).²

Figure 2. Why Organizations Chose a Backup Appliance Over a Storage Appliance

What is the primary factor that led your organization to choose a backup appliance(s) over a storage/deduplication appliance(s)? (Percent of respondents, N=59)



Source: Enterprise Strategy Group

Unfortunately, these IT decision makers also consistently reported that, although they liked their turnkey backup appliances, they were inevitably running out of capacity due to *scalability limitations* of many popular solutions. The situation was even forcing some of them to revert to using self-installed software and dedicated deduplication storage.

That finding was interesting. It put the “blame” for the problem squarely on legacy backup appliance vendors, who essentially need(ed) to provide higher-capacity and scalable turnkey appliances. This is where [Commvault](#) has entered the picture.

² *ibid.*

The Commvault HyperScale Appliance

Commvault is a long-time innovator in data protection software, and it has been selling a turnkey backup appliance for the past few years. However, Commvault recently released its HyperScale scale-out storage architecture³ to enable enterprises and third-party managed service providers to implement enterprise-class data protection more effectively.

In response to customer demand for a complete solution (backup appliance), Commvault is delivering its HyperScale Technology capabilities in both a software with a reference design (for better together scenarios with a variety of hardware solutions) and as a turnkey backup appliance solution of its own.

Introducing the Commvault ‘Block’

Commvault HyperScale Appliances (see Figure 3) are three 1U devices, or nodes, designed to be connected to form what Commvault refers to as a three-node “block.” The appliance architecture can then be expanded further by adding/joining multiple blocks.

Figure 3. The Commvault Three-node Block Hyperscale Appliance



Source: Commvault

The block architecture containing multiple HyperScale Appliances provides clear architectural benefits. Specifically:

- Each three-node block is managed as a logical unit, and its data is distributed across nodes via erasure coding. The appliance provides scale-out expandability by enabling parallel I/O streams across the appliances (nodes) as well as storage capacity increases, all of which is possible due to Commvault’s new HyperScale Technology.
- Blocks will be available in a range of aggregate capacities (48 to 120 raw terabytes per block). Multiple 48, 72, 96, or 120TB blocks can be linked together, providing common management and global deduplication across the scale-out cluster of linked blocks. This approach would appreciably expand the agility of an existing Commvault environment and/or provide a scale-out basis for a more modern data protection architecture.

³ Commvault makes a distinction between the names Commvault HyperScale Technology (the full name of the offering overall) and Commvault HyperScale software in an effort to highlight the fact that organizations are able to implement Commvault HyperScale as an appliance or as a reference-design software solution.

The Commvault HyperScale Appliance—boasting high-quality software and fast performance along with easy acquisition, deployment, administration, patching/upgrading, and support/maintenance—is well-suited for use by midsized organizations and distributed locations/branch offices.

Rounding out the portfolio for larger data centers and managed service providers is the HyperScale Software and the Commvault Validated Reference Design Program, through which Commvault solutions are mutually tested with, and supported by, a range of enterprise hardware manufacturers.

The Bigger Truth

Commvault has an admirable track record of achievement in data protection. The vendor's strong reputation is the outcome of its many years of perpetual evolution to meet the changing/increasing requirements of end-user customers, partners, and the world as a whole.

To a considerable extent, Commvault's progress has been powered by its single code base, which it continually expands and refines. And for the past few years, Commvault also has been expanding and refining its consumption and partnering strategies, again to meet market demand. For example, it introduced alternative/scenario-specific pricing for subsets of the broad Commvault software feature set when virtualization changed the way many monetize IT infrastructure.

The unveiling of the Commvault HyperScale Appliance represents yet another example of this vendor's customer focus and its ability to adapt to deliver better choices in consumption and fulfillment—while still staying true to its vision of powering all solutions from the core code. The result is:

- HyperScale Technology architecture to enable greater “reach” across enterprises and MSPs.
- Validated reference designs (“blueprints”) for broad, rich, high-value solutions made up of Commvault's offerings and a variety of other vendors' hardware.
- A multi-node appliance architecture appropriate for midsized organizations looking for turnkey data management.

The IT industry is not going to regress to the days of monolithic hardware. Collectively, vendors and senior IT decision makers have acknowledged that *the power is in the software*. Just witness the ubiquitous rise of “Software-defined *fill-in-the-blank*.”

To move the industry forward further, Commvault intends to use its all-encompassing but modularly flexible software to power whatever form factor or architecture its customers might be looking for in data management today—and in the future.

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