

## **THE HP SOLUTION TO BACKUP COMPLEXITY AND SCALE** HP Data Protector and StoreOnce

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There are a lot of game-changing trends in IT today including mobility, cloud, and big data analytics. As a result, IT architectures, data centers, and data processing are all becoming more complex – increasingly dynamic, heterogeneous, and distributed. For all IT organizations, achieving great success today depends on staying in control of rapidly growing and faster flowing data.

While there are many ways for IT technology and solution providers to help clients depending on their maturity, size, industry, and key business applications, every IT organization has to wrestle with BURA (Backup, Recovery, and Archiving). Protecting and preserving the value of data is a key business requirement even as the types, amounts, and uses of that data evolve and grow.

For IT organizations, BURA is an ever-present, huge, and growing challenge. Unfortunately, implementing a thorough and competent BURA solution often requires piecing and patching together multiple vendor products and solutions. These never quite fully address the many disparate needs of most organizations nor manage to be very simple or cost-effective to operate. Here is where we see HP as a key vendor today with all the right parts coming together to create a significant change in the BURA marketplace.

First, HP is pulling together its top-notch products into a user-ready “solution” that marries both StoreOnce storage and Data Protector. For those working with either or both of those separately in the past in conjunction with other vendor’s products, it’s no surprise that they each compete favorably one-on-one with other products in the market, but together as an integrated joint solution they beat the best competitor offerings.

But HP hasn’t just bundled products into solutions, it is undergoing a seismic shift in culture that revitalizes its total approach to market. From product to services to support, HP people have taken to heart a “customer first” message to provide a truly solution-focused HP experience. One support call, one ticket, one project manager, addressing the customer’s needs regardless of what internal HP business unit components are in the “box”. And significantly, this approach elevates HP from just being a supplier of best-of-breed products into an enterprise-level trusted solution provider addressing business problems head-on. HP is perhaps the only company completely able to deliver a breadth of solutions spanning IT from top to bottom out of their own internal world-class product lines.

In this report, we’ll examine first why HP StoreOnce and Data Protector products are truly game-changing on their own rights. Then, we will look at why they get even “better together” as a complete BURA solution that can be more flexibly deployed to meet backup challenges than any other solution in the market today.

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### **“ONE” HP DELIVERS A COMPLETE, ONE-STOP BACKUP SOLUTION**

One of the most critical core tasks for an IT organization is protecting corporate data. Yet most organizations have had to assemble a mix of products and technologies from different vendors in

order to cover the whole data center from end-to-end with adequate RPO and RTO service levels. Each disparate component and vendor involved adds complexity and risk that some key data doesn't actually get protected, or can't be quickly recovered when worst case situations develop. Clearly, acquiring, deploying, and managing a reliable BURA solution is a top priority.

There are very few trusted, single-stop vendors that can deliver and guarantee a cohesive and cost-efficient end-to-end BURA solution. Here at Taneja Group we've identified that HP has transformed its customer-facing BURA offerings, consisting of best-in-class products from multiple internal divisions each with technical excellence, deep support, and highly qualified services, into a converged, cohesive "single" solution for their customers.

What this really means to IT folks is that with HP, despite its size and breadth, there is now only one services relationship to getting BURA deployed across all the hardware and software required, one support call needed for issues no matter what layer of the stack a problem might surface, and one "solution" of technology that intimately leverages features sets across components (in addition to open integration with 3<sup>rd</sup> parties when necessary).

This is the result of an impressive commitment by HP executives and employees to put their customers at the center of every single business decision. HP is now dedicated to solving a customer's business issues and helping each customer with an eye towards the "solution" desired, and not leave the customer alone responsible for the ultimate success of HP equipped projects. As we'll see in this report, they are working hard to make their combined BURA solution altogether agile, flexible, competitive, cost-efficient, and better for customers (than the competition).

In the next few sections, we'll examine some critical components of HP's solution approach including:

- Evolving From Products to Solution
- Single Support Across Hardware and Software
- Single "SKU" Service Solutions

### ***Evolving From Products To Solution***

HP has long held a stellar reputation for technical leadership. In every HP business unit we can find best-of-breed products backed by engineering excellence. In hardware units like storage, products like 3PAR and StoreOnce can face down the competition on both performance and cost, while in software HP continues to re-invigorate product lines like Data Protector with world-class capabilities today while drawing out exciting and believable futures going forward (e.g. the Adaptive Backup & Recovery initiative to improve data protection by making backup smarter and more efficient through the use of IT operational analytics).

Clearly, though, a critical improvement that HP has been working on in the last couple of years is bringing separate products to market together as complete solutions that provide customers with even better returns – solutions that directly address business challenges and that deliver great business value. HP under Meg Whitman has committed to putting their customers first, and has worked hard to tether their various technological domains to service what customers really need.

#### **HP Converges On Many Fronts**

In preparing this report, I was able to independently interview multiple HP employees from product, services, support, and channel groups, and even some HP partners, and am convinced that HP has achieved a considerable internal cultural shift that is just now coming to fruition – and that will soon become highly visible externally. As an example, StoreOnce already booked a 50% year-over-year growth in 2013, but I predict that in 2014 HP will surprise their competition with greater growth, particularly where they are now "converging" capabilities like the combined Data Protector and StoreOnce solution outlined in this report.

The BURA solution that combines StoreOnce and Data Protector is but one example of this “new One HP”.

Before diving into what makes StoreOnce and Data Protector so great together as a market-leading BURA “solution”, let’s briefly review each product in-turn.

## STOREONCE

HP StoreOnce is a federated deduplication storage solution that can reduce the amount of data stored within by 95% (guaranteed through HP’s GetProtected program). The main StoreOnce product family consists of an expanding range of physical deduplication appliances based on HP’s leading hardware technologies. But StoreOnce has become much more than a hardware lineup of physical systems.

It’s no surprise that the world’s data is growing, but to manage it properly one also needs to look at where that data is coming from, how it’s being produced, used, and analyzed. The number of sources and applications is also growing, as is the complexity of how data is distributed and accessed. The StoreOnce team realized that protecting this newer, more complex world requires secondary storage that is flexible and agile enough to be deployed in a wide variety of configurations and operational flows, but also remains globally consistent and interoperable.

In other words, StoreOnce’s deduplication capabilities are deployable wherever they can best be leveraged (as upstream as possible according to “best practice”), while maintaining the de-duplicated form through any subsequent data movement (all downstream activity including migration and cross-site replication).

Architecturally, StoreOnce (and it’s Catalyst software engine) “federated” deduplication can be deployed in more ways than any other deduplication solution on the market, using the same deduplication technology both in software and in hardware:

1. Right at the application source.
2. In a backup server application or media server (Data Protector and other backup solutions like those from Symantec)
3. At a StoreOnce backup target server (out of a broad lineup of StoreOnce physical appliances)
4. At a virtual StoreOnce VSA (StoreOnce virtual appliance)

Because data gets deduped once “globally” and remains deduped as it moves between locations and systems (for consolidation, replication, DR, or other protection processes), StoreOnce solutions use significantly lower bandwidth, disk capacity, and time related to “backup window” requirements. They also ensure that backups can be recovered, and in a timely manner where and when needed. Competitively, HP is the only vendor we are aware of that publicly states restore times on their data sheets, and these are usually as fast as their backup/ingest speeds.

*For a more detailed report on HP StoreOnce that examines the many varied and powerful use cases enabled by federated deduplication – including ROBO’s and DR sites seamlessly – see the Taneja Group Technology Brief “HP StoreOnce Boldly Goes Where No Deduplication Has Gone Before”.*

The wide deployment flexibility, along with the other enterprise class features of StoreOnce like central management and built-in data encryption options make it a fully capable solution that customers (and partners) can bend agilely to whatever “shape” the IT environment requires. Other vendor solutions that we have examined require deploying multiple product lines to achieve the same coverage which inevitably becomes more complex, more expensive, and prone to error.

## DATA PROTECTOR

Data Protector is HP's flagship backup software solution in use at over 45,000 customers worldwide, protecting roughly half of the Global 500. Data Protector has evolved over the years into a scalable, reliable, and high performance solution that can solve enterprise backup challenges (all in one console). It offers many advanced features including multi-hypervisor support, fine-grained object recovery, built-in disaster recovery, snapshot integration with a wide-variety of storage arrays, instant recovery of mission-critical applications, and of course, integral support for StoreOnce.

### A Whole New HP Data Protector

According to an HP partner I interviewed, Data Protector 8.1 should get a new brand because it deserves to be positioned as a newly competitive solution in the market (rather than thought of as an increment over the "older" versions of Data Protector). We are not sure of the value of re-branding at this point, but what is clear is that there is a lot going on with Data Protector today that deserves renewed market attention.

In particular, we like the new Adaptive Backup and Recovery (ABR) features that are being built into Data Protector. Centered around ways to better optimize and intelligently automate what can be difficult and complex operations to manage at scale, these features bake enterprise class management right into the backup and recovery process. The full ABR vision including actionable recommendations to optimize backup and ensure recoverability, and fully automated operations based on "self-learning" analytics, is due to roll out over the next year or so, but Data Protector has already gained policy-based prioritization and a priority-based scheduler. Admins can apply priority on all supported agent types which determines which backups deserve priority access to key resources like network bandwidth and backup targets. Organizations can now ensure the proper protection of applications based on their business criticality even in complex and dynamic IT environments.

In addition to supporting many other business critical applications, Data Protector is also now helping SAP HANA shops that are challenged with protecting large amounts of critical in-memory database data. Data Protector provides HANA backup and recovery operations through the HANA interface enabling data and database recoveries to a point in time or last restorable state.

## BETTER TOGETHER BURA

By deploying HP Data Protector "software" for backup with HP StoreOnce "hardware" as a federated dedupe backup target, partners can solve any shape of customer BURA problem or challenge, in one integrated and coherent solution. Obviously Data Protector gains great storage efficiency and the benefits of federated dedupe options. The total reduction in disparate components and moving parts that might otherwise need to be assembled, integrated, customized, and validated from multiple 3<sup>rd</sup> party vendors make this a very attractive proposition for HP partners when looking to profitably solve real-world customer scenarios.

But if this was simply a cardboard box bundling of two products, then it would still just be a 1+1 = 2 value proposition. However, we've determined that HP has established an optimal joint "coordinated development" approach between their hardware and software business units resulting in increased customer (and partner) value when products are deployed together as a complete solution. This is no small feat for a company with as many different "centers of excellence" as HP. The gap between how software and hardware business units at large companies are normally run is bigger than those on the outside might appreciate. Many large IT companies can't figure out how to converge their

### HP Customer Challenges

According to another HP Partner, the biggest problem facing IT organizations is how to "accelerate their backup windows as data grows bigger" and their data centers grow more complex. With StoreOnce, Data Protector can more cost-effectively scale as an end-to-end solution compared to other leading vendor alternatives.

various products into single customer facing solutions, and tend to manage their disparate business units as fully independent (and internally competing) entities.

With HP, backup admins can manage both the backup process and the dedupe storage directly from the Data Protector interface. Data Protector can manage and orchestrate the creation of StoreOnce “stores”, manage replication, and can apply security policies (i.e. secure partitioning for multi-tenant deployments). This not only merges, what would otherwise be two separate administration efforts, but also ensures the full alignment of all capacities and capabilities. As Data Protector gains additional operational analytics, the benefits here will compound.

Data Protector is heavily integrated here and can manage/orchestrate the creation of StoreOnce stores, manage replication and can apply security policy (to enable secure partitioning for multi-tenant style deployments).

In addition to storage efficiency and unmatched architectural flexibility, StoreOnce also provides Data Protector users with enhanced security through encryption options, and instant recovery capabilities (and efficient remote recovery/copies as well).

By using Data Protector and StoreOnce together (see Figure 1), many different deployment configurations can be set up. In fact, this chart doesn’t begin to show the range of StoreOnce physical appliance options or the use of the StoreOnce VSA virtual appliance in virtual environments – all of which will work together seamlessly under Data Protector centralized management.

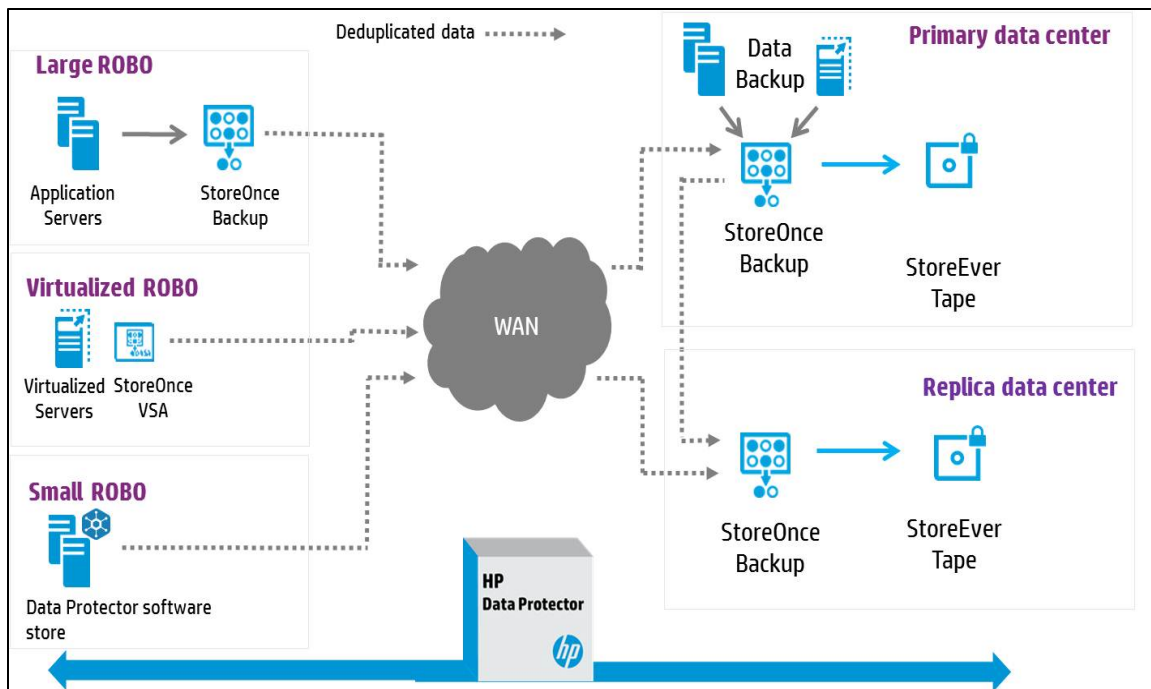


Figure 1 - HP Data Protector and StoreOnce

### **Single Support Model On the Outside, Experts on the Inside**

In the past, HP support teams have been strictly aligned with their business units – software support with software products, hardware support with hardware products. But for a solution that combines hardware with software, two completely separate support teams clearly weren’t going to be able to provide customers or partners with a good experience – how is a client to know when a given problem is software or hardware, or what if it is due to the interaction of both? To HP’s credit, and



this is probably harder to do than joint development, they recognized early on that you can't bounce a customer around between support organizations and that unified solution support is key to exceeding expectations and ensuring ultimate solution success.

As a result, both the involved software and hardware support teams have been cross-trained so that regardless of where a solution related support call comes in, it will be properly handled, and not just passed around. Internally, "Solution" cases are now flagged for joint collaboration and follow-up by both teams, regardless of any temporary logistical "misalignment" between hardware and software support contracts.

Even more empowering, HP Support has begun proactively calling new customers of the joint solution to ensure that everything is working out well and they are getting the value expected. At designated intervals, the team checks-in on the collaborative implementation, delivery, and support process. If there is any issue, they are empowered to stay on the problem through to its resolution, engaging different business units, partners, engineering, sales or whoever is necessary.

### **Single SKU Service Solutions**

HP's professional services have also traditionally been aligned to either hardware or software. But there is no doubt that HP services folks were able to jump on the challenge of providing solution leadership. They've produced solution focused methodologies and single "SKU" solution service packages around Data Protector and StoreOnce for health checks, upgrades, and quick starts.

When it comes time to deliver, the HP Services approach is to make the whole project look seamless to the customer regardless of the specialists or channel partners involved. Great care is taken to create a unified project management interlock for successful delivery.

### **TANEJA GROUP OPINION**

We think that HP's Data Protector and StoreOnce, both individually and now particularly as a joint solution can fairly beat the competition and has massive market opportunity today. In addition to developing competitive world-class products, HP is doing all the right things to bring these products to market together as a unified comprehensive solution within a seamless customer experience. Fundamentally, in addition to the large base of existing product deployments, we feel that HP will be able to garner a large increase in market share with new solution-level customers and expansion opportunities.

HP Data Protector and HP StoreOnce individually make a lot of sense, but even more so together for customers looking for a single source for a complete BURA solution that covers all angles. We expect HP to bring this same solution focus across other components of their complete IT portfolio (e.g. ConvergedSystems, HAVEn) to offer more business and IT service focused solutions, and become even more of a trusted business level "partner" to their customers.

HP, already a leader in enterprise solutions and technology, is poised to roll-out new technologies too (i.e. Project Moonshot) but also new ways to leverage those technologies as solutions with real business value across the broader IT market. Given some of the recently observed activity with other large IT vendors, HP has a real opportunity to become THE trusted, complete, one-stop solution provider.

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