Real-world ROI: The business value of HP 3PAR StoreServ Storage systems for mission-critical applications

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Abstract: This paper is the outcome of a series of in-depth interviews ESG analysts performed with senior IT professionals in various industries. Our objective was to determine the direct and indirect value customers derive from using HP Converged Storage solutions to address their primary storage needs, and more specifically their returns on:

- **Information**—such as gaining more value from corporate data for better decisions
- **Infrastructure**—in the form of lowering costs and increasing infrastructure agility
- **Individuals**—including time savings and reduced management complexity

Background and Methodology

ESG conducted in-depth interviews with senior executives in IT shops in varying industries, including healthcare, education, financial services, manufacturing, insurance, services, entertainment, and others. These interviews were typically 45-60 minutes in length. The focus of the interviews was to determine the impact to the business—positive or negative—that occurred after the addition of various HP Converged Storage systems deployed to address the need for primary storage, including HP 3PAR StoreServ Storage.

The results of these findings are presented in examples that illustrate the major benefits derived by customers with respect to their return on information, infrastructure, and individuals as a result of investing in modern, Tier 1 storage systems with enterprise scalability, availability, and performance. A summary of ESG’s findings is followed by direct quotes from those IT professionals interviewed. While we’ve retained anonymity of these customers the quotes are exact and, in our opinion, a powerful testament to value that customers derived as a result of deploying HP 3PAR StoreServ Storage in their IT environments.

Primary Storage: HP Converged Storage for Applications, Virtualization, and ITaaS

Before presenting customer feedback and experiences with HP Converged Storage, it’s worthwhile to quickly highlight some notable features of HP 3PAR StoreServ Storage and unique platform benefits that directly aid in increased customer return in overall primary storage investments.

HP 3PAR StoreServ Storage is a family of modern storage systems with Tier 1 models that range from less than $40,000 to multi-million dollar systems found in the world’s largest cloud data centers. HP 3PAR StoreServ Storage is unique in the industry in that it uses a single architecture—and a single operating system—to deliver primary storage across this wide range of deployments, including all-flash arrays that are optimized for solid state storage performance. As the leading disk system offering in the HP Converged Storage portfolio for Tier 1 reliability, performance, and scalability within virtualized, IT as a Service (ITaaS), and mission-critical environments, HP 3PAR StoreServ Storage has a strong background in the world of IT hosting and the public cloud. It is particularly well suited to environments that experience unpredictable performance and capacity demands, where rapid response to new application requests and extreme economic efficiency are benchmark capabilities.
As Sr. Analyst Mark Peters noted in a recent blog, “HP is the only vendor that offers a genuine single product storage family that's capable of spanning—and essentially integrating—midrange platforms, all-flash devices, and all the way up to enterprise storage that can scale to multi-petabytes.”

The ability of the storage system to perform Quality of Service (QoS) between multiple applications, tenants, and systems enables predictable performance for all, which has been universally seen as an impediment in the “virtualization era.” By being able to predict I/O outcomes, HP 3PAR StoreServ Storage customers are able to spend less time in performance “triage” and more time tending to other business.

Likewise, due to unique thin provisioning capabilities that leverage both software and processing capabilities built into the system’s ASIC, HP 3PAR Storage Systems continually optimize storage capacity to maximize storage economics, reducing capital costs regardless of application set. These are just some of the features that lead directly to higher returns for HP customers. However, cost is only one dimension of the equation. The customers interviewed for this project indicated that HP 3PAR StoreServ Storage also contributed to the overall business in ways that are just as tangible yet less commonly highlighted.

ROI3: Return on Information, Infrastructure, and Individuals

It is all too easy to only look at storage as a necessity, and an expensive one at that. However, the truth is that storage “done well” can actually deliver added value to the business through better insight, operational efficiencies, and even organizational improvements. Collectively, this is what HP refers to as “ROI3” (or “ROI to the power of 3”), which stands for increased return on: information, infrastructure, and individuals. In the following sections we’ll explore what these may look like in actual customer environments.

Return on Information: A Major Online and Physical Retailer Deploys HP 3PAR StoreServ Storage

The role of any primary storage system is the same: to effectively house, protect, and deliver the information that resides on it to the people and applications that require it. While sounding obvious, the ability to perform these functions more quickly and efficiently is the key to adding value to the customer’s IT environment. Organizations can gain competitive advantage through faster analytics and response time.

In the case of one global retailer we interviewed for this project, an HP 3PAR StoreServ Storage system had been deployed to support consolidated back-office application needs across 3 data centers and 500+TB of information. Prior to this consolidation project, information was stored in fragmented information silos across multiple applications—a situation that was being exacerbated by rapid growth.

The retailer reported that the results have been dramatic. The company can now consolidate sales data nearly in real time, inclusive of remote data, and populate business intelligence/analytics systems in less than one-tenth the time previously required. This has enabled visibility never thought possible for business analysts, which in turn has allowed for significantly faster decision making. And in the competitive world of retail, time truly is money.

I feel as though we were given the opportunity to start fresh with HP’s storage solutions—and the result is that we are absolutely a much more informed company, a better employer, and have unleashed a serious competitive advantage: information. Our business managers have never had more insight, more often.

—Senior Vice President of IT. Major Retailer

Return on Infrastructure: A Major National Healthcare Provider Deploys HP 3PAR StoreServ Storage

Return on infrastructure is a benefit that receives most traditional focus from storage vendors and customers alike. The core value of this metric has a direct correlation to the overall efficiency of storage resources and increased efficiency to the data center as a whole. Increased storage efficiency translates into the ability to use more of the device—in other
words, to benefit more from a given hardware investment—and directly results in benefits such as: lowered capital expense, deferred purchases, and lower operational and facilities costs.

One of our interviewees, a major healthcare provider deploying a virtual desktop infrastructure (VDI) and MediTech Patient Record system, selected the HP 3PAR StoreServ system to advance a previously stalled application rollout. Many organizations fail to realize the important role that storage architecture can play in maximizing the number of virtualized applications running on server infrastructure. In this case, the provider was only able to virtualize 20% of its applications because unpredictable storage performance limited virtual machine (VM) density. The gaps also resulted in end-user complaints that overwhelmed the help desk.

After reviewing proposals from all of the major storage vendors, the customer selected HP 3PAR StoreServ Storage. The system allowed the company to fully support both its VDI and MediTech systems on the same storage infrastructure with room to spare. Due to the extremely high performance of the 3PAR StoreServ array, the healthcare provider has been able to put off server upgrades—and therefore the purchase of additional licenses—indefinitely. “We most likely have paid for our storage with first year savings alone,” said one administrator. VDI deployment has now reached over 80%.

*The 3PAR performance is unbelievable. We couldn’t get out of the lab with our old storage systems, and now we’ve already hit 80% [on our VDI deployment], and the rest will be done this year. The 3PAR system isn’t even breaking a sweat yet….Our ability to keep patient data online for our doctors and associates means they can access data in minutes versus days.*

—Senior Systems Administrator

**Return on Individuals: A Managed Service Provider Deploys HP 3PAR StoreServ Storage**

The concept of return on individuals is a way to acknowledge, clarify, and capture the *emotional* impact of the intersection between humans and technology, often reflected in the amount of time it takes to manage storage. IT managers can be less stressed because the systems are reliable and because there’s a certainty that data can be identified, recovered, delivered, and used as needed to increased job satisfaction and productivity.

This midsize cloud/IT service provider makes its living by managing infrastructure in an optimal fashion. In this ultra-competitive sector, cost is paramount—not only capital cost, but, perhaps more importantly, operating cost. The company is constantly seeking to automate tasks that are performed by staff—and avoid anything that causes new or more work for existing staff and cannot be directly supported by revenue.

The answer for this and many other cloud operators was the deployment of HP 3PAR StoreServ Storage systems in each of its three primary data centers. In this case, the *autonomic*, or intelligent self-managing, capabilities of the system enabled it to constantly improve overall service quality and QoS levels while rapidly deploying more offerings to drive new revenue streams. The customer has been able to bring technical generalists into the realm of storage management and keep the management headcount relatively flat even as it has grown to support over 500,000 end-users across 1,000 customers.

*At this point, we’re comfortable that any of our IT staff can easily be trained to operate our 3PAR environment—because really, the system runs itself. It’s as close to ‘set it and forget it’ as anything I’ve come across in this business. It takes a pounding and just keeps asking for more.*

—Chief Information Officer

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Other Primary Storage Benefits Experienced with HP 3PAR StoreServ Storage

I’ve saved needing an entire extra full-time employee—that’s not far short of $100k that my budget couldn’t stretch to—thanks to the 3PAR StoreServ system. For a large organization with a small IT operation, this is huge.

– CIO, Engineering/Manufacturing Company

It’s simple—we’re a low-margin business in a tight economy; I can’t afford to waste a dime or a megabyte; 3PAR StoreServ Storage has made that real: I’m spending about 25% less on storage than with my prior supplier, but have 40% more data stored, and I’m exceeding all my SLAs.

– Senior Director Information Systems, Logistics/Distribution Company

Our previous storage systems never made it past three years before we’d have to upgrade just to keep pace with application demands. Many times we had to add or upgrade for performance reasons in under two. We know we’ll go past five years with our 3PAR StoreServ system, and I think that unless something radically changes, we’ll make it seven. These systems will save us millions of dollars over their lifetime.

– VP/CIO, Regional US Healthcare Provider

3PAR’s thin provisioning alone has saved me around 50% of planned capacity, allowing me to reclaim space and defer expenditure.

– VP IT Services, Manufacturing Company

We have definitely changed our numbers from a sales side to help us get better positioned in deals, how we can price things out, and win business, based on the savings that the 3PAR StoreServ has given us... There’s a direct link between what we’ve done on the storage front, and our business as a whole... For a major client, the 3PAR StoreServ dramatically decreased their time for processing.

– VP Infrastructure, Managed Service Provider

Because I only run a small team, I don’t even know what the electricity costs—it gets absorbed elsewhere. BUT, last year we were looking at a considerable expense for a new cooling system, but it turns out that we don’t need that anymore; buying 3PAR StoreServ was a great investment on that basis alone.

– Senior Director of Information Services, Logistics/Distribution Company

We don’t manage storage anymore. Where we might have had a team of six to eight [employees] dealing with load balancing and storage optimization prior. We have less than one now. The system optimizes itself.

– VP/CIO, Regional US Healthcare Company

The Bigger Truth

The results presented above show that customers of HP Converged Storage offerings for primary storage report realizing significant returns when it comes to information, infrastructure, and individuals. All customers interviewed reported an increase in capabilities compared with their previously deployed primary storage technologies and processes, resulting in higher-performance operations with less individual management overhead—enabling the opportunity for those organizations to attain higher levels of value from the data that they store and protect.

The range of positive impacts is impressive, and of course are headlined by both making and saving money—from real quantifiable external business impacts such as the user whose ability to run analytics on prior-day sales data is now available in 90% less time than before, to internal money saved, as seen in examples given of both capex and opex savings: spending less to store more, avoiding the need for a new cooling system, and saving on both servers and software licenses as an unexpected—but very welcome—consequence of more efficient primary storage.

But some of the more subtle returns are perhaps the most interesting and beneficial. These range from actually being able to pinpoint specific information or gain valuable insight from the corporate data “haystack” to having an IT manager who no longer dreads starting every morning with a barrage of “hate mail.”

The take-away is that well-designed, executed, and implemented Converged Storage solutions from HP can elevate primary storage from a necessity and a cost center to an asset that contributes to the business. When storage is done
right, additional value can be more readily extracted by employees who have time to pursue value-generating activities and are more motivated to do so.

When these outcomes converge, the result is delivering more business value to the organization as a whole. And, most important of all, as evidenced by the customers interviewed for this project, return on investment is not just a marketing construct, but a real-world value that HP Converged Storage customers are realizing within their primary storage deployments today.