THREE REASONS TO USE AN ALL FLASH ARRAY

ViON

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Introduction

INTRODUCTION
FLASH STORAGE AT THE TIPPING POINT

For the past couple years, the IT world has been buzzing about the myriad possibilities of Flash storage and what the technology will mean for the industry. Now these possibilities are being realized. Today's Flash can beat the performance and capacity of traditional disk drives, and it enables architectures that would not be possible otherwise. However, Flash traditionally has been more expensive than high performance disk drives, so many organizations have not considered implementing it.

But Flash is constantly evolving and has finally reached an inflection point: today the cost of Flash storage is dramatically lower than even a few months ago. In fact, Flash solutions are now attractively priced compared to the cost of high performance disk drives. Organizations can obtain 100x or even 1000x the performance of traditional disks for the same or less cost per gigabyte. In other words: there is no longer a reason to buy disks for applications requiring high performance.

Even if you have not yet deployed Flash in your infrastructure, you should consider investigating how today's Flash offerings could meet your infrastructure needs. This eBook offers three compelling reasons why you should consider making the switch now: ease of use, performance and affordability.

Read on to learn more.

1:
EASE
OF USE

In the past, Flash had a reputation for being complex and difficult to use. Not anymore as Flash solutions have become incredibly simple to operate and offer robust performance.

Simplify application administration and storage operations.

High performance Flash systems have always offered impressive performance, but they have often not been enterprise ready. They can be like race cars, offering extraordinary speed and performance while not being practical for everyday use. Now that ease-of-use issues have been addressed, organizations may finally obtain race-car-like performance and enjoy the features they want—for the cost of a mini-van.

Flash provides fewer tiers of storage and allows you to provision your storage and SAN much more quickly than spinning disks. This greatly simplifies administration of the Flash system, making routine tasks much faster and providing you with substantially increased usable resources in the areas of density, capacity, and performance.

Reduce or eliminate configuration tuning and tweaking.

New cost-effective Flash arrays offer far more IO capacity, relieving administrators of the need to tweak and tune systems to get small performance improvements from hard drives. Today's Flash solutions also allow organizations rapid recovery from a drive failure. While it could take a day and a half to rebuild a traditional failed hard drive, an IT organization can recover from a Flash drive failure in a couple of minutes.

Enable resources to focus on higher-priority projects.

With far faster performance times and greatly reduced RAID failover recovery times, Flash offers IT staff the opportunity to do many routine tasks more effectively. You no longer need to devote endless hours to optimizing the system and reducing data volume. Rather than tweaking and tuning, you can focus on enhancing the robustness of the storage network, improving the internal architecture, or dedicate your time to other higher-priority IT projects.

2:
PERFORMANCE

All-Flash storage arrays are providing organizations greater speed, security, reliability and value from key business applications.

Greater application and database performance.

Today's Flash systems can provide 100x to 1,000x times the IO performance of a standard disk-based system. Such performance improvements offer cost efficiencies and operational capacities that were unthinkable even a year ago. Across the board, just about every operation takes less time with Flash.

No issues with availability and reliability.

In the early days of Flash, initial forays into the market were not impressive to most enterprise customers due to reliability issues associated with Flash. However, such reliability issues were the result of using Flash technology in conjunction with operating systems, drivers, controllers, and applications that were not designed or optimized for Flash storage. This technology mismatch created both reliability and inefficiency issues when deploying Flash in the enterprise. However, industry-leading organizations recognized the value of Flash and began to incrementally address the technology inefficiencies.

Massive investments by companies like Pure Storage and other industry leaders have addressed these reliability issues. Operating systems, as well as RAID and HA schemes, have all been optimized for Flash. As a result, Flash arrays today are more reliable than spinning disks. With almost no moving parts, Flash exhibits far greater reliability and performance consistency. And, because Flash allows an organization to recover from a failure far more quickly, it is more dependable than a spinning disk based system.

Enhanced resiliency and data protection.

All Flash Arrays provide a variety of data resiliency and data protection schemes that were impossible with hard disk based storage systems. Flash allows you to use more dependable RAID schemes, thus enhancing data reliability. Snapshots occur much faster, reducing time between backups and increasing frequency. Many of today's Flash solutions also have built-in disaster recovery and protection features that further enhance your ability to insure the integrity of your data.

Performance for the future.

Most organizations face an explosion of big data, which can provide many valuable insights if managed and analyzed correctly. However, the rate at which organizations are creating and ingesting data is fast outpacing their ability to retrieve and feed the CPUs to allow for effective analysis of this data. The primary reason for this performance mismatch is the inability of hard disk based storage systems to randomly access small bytes of data and the slow rate at which they transfer data from the disk to the CPU. These problems result from disk's IOPS and bandwidth limitations; however, Flash-based systems substantially outperform disk in both IOPS and bandwidth capacity. Only Flash-based systems offer the performance and capacity to do analytics on these large, complex data sets in a manner that optimizes CPU utilization.

ALL-FLASH STORAGE ARRAYS ARE PROVIDING ORGANIZATIONS GREATER SPEED, SECURITY, RELIABILITY AND VALUE FROM KEY BUSINESS APPLICATIONS.

3:
AFFORDABILITY

Affordability used to be the stumbling block in preventing many organizations from moving to Flash, but recent reductions in price have made the cost-per-gigabyte the same as or lower than high performance hard disk. This means you can enjoy Flash's massive improvement in performance and capacity for less than the cost of high-performance disks.

Increasing effective capacity.

When looking at the overall cost of enterprise storage, a key question to ask is "How much storage is useable?" With Flash's inherent speed and the use of deduplication and compression technology, organizations can fit substantially more usable data or effective capacity on a Flash Array. Effective capacity drives down the actual cost of Flash, which could offer as much as a 1,000x improvement in performance.

Lower software licensing fees.

Software license costs can be reduced through the utilization of Flash storage. By optimizing CPU utilization, an organization will need to purchase fewer application licenses per CPU/server. Once storage is removed as the bottle neck in application design, server consolidation and reduction can greatly reduce licensing costs. Additionally, companies such as Pure Storage bundle enterprise class features such as HA, DR, snapshotting, deduplication, and compression, at no extra licensing cost to the end user into their All Flash Arrays. These combined software cost reductions substantially increase the already high ROI of enterprise Flash Storage.

Improved data center efficiency.

Not only do All Flash Arrays provide improved performance and cost-per-feature compared to disk arrays, but they also offer greater efficiencies in space and power. One rack of Flash arrays can replace hundreds of racks of spinning disks, greatly reducing energy and floor space requirements. In addition, Flash drives have few moving parts, only cooling fans. Since 70% of most data centers' power costs are dedicated to removing heat from the environment, the resulting reduced thermal footprint can drastically decrease power bills compared to traditional disk drives.

Flash's efficiency saves your organization money by avoiding the need to invest in capacity overprovisioning to achieve performance gains. By adopting Flash, data centers also achieve resource efficiencies that allow them to host more IT services and store more data well into the future.

YOU CAN ENJOY FLASH'S MASSIVE IMPROVEMENT IN PERFORMANCE AND CAPACITY FOR LESS THAN THE COST OF HIGH-PERFORMANCE DISKS.

4:
PURE STORAGE FOR ENTERPRISE SAN

Pure Storage is one of the market leaders in high performance Flash arrays. Not only does it offer Flash with improved performance and capacity at a lower price than disks, but it provides the features IT organization expect, such as simpler upgrades, data compression, and snapshot capabilities.

A recent Forrester study detailed the many business benefits of going all Flash with Pure Storage – including major cost savings. Replacing a legacy disk with a Pure Storage Flash array can lead to a 102% ROI in only 14 months.

In short, Pure offers everything you need: easy-to-use, cost-efficiency and worry-free IT. Pure is the simple solution that takes the complexity out of your new storage platform.
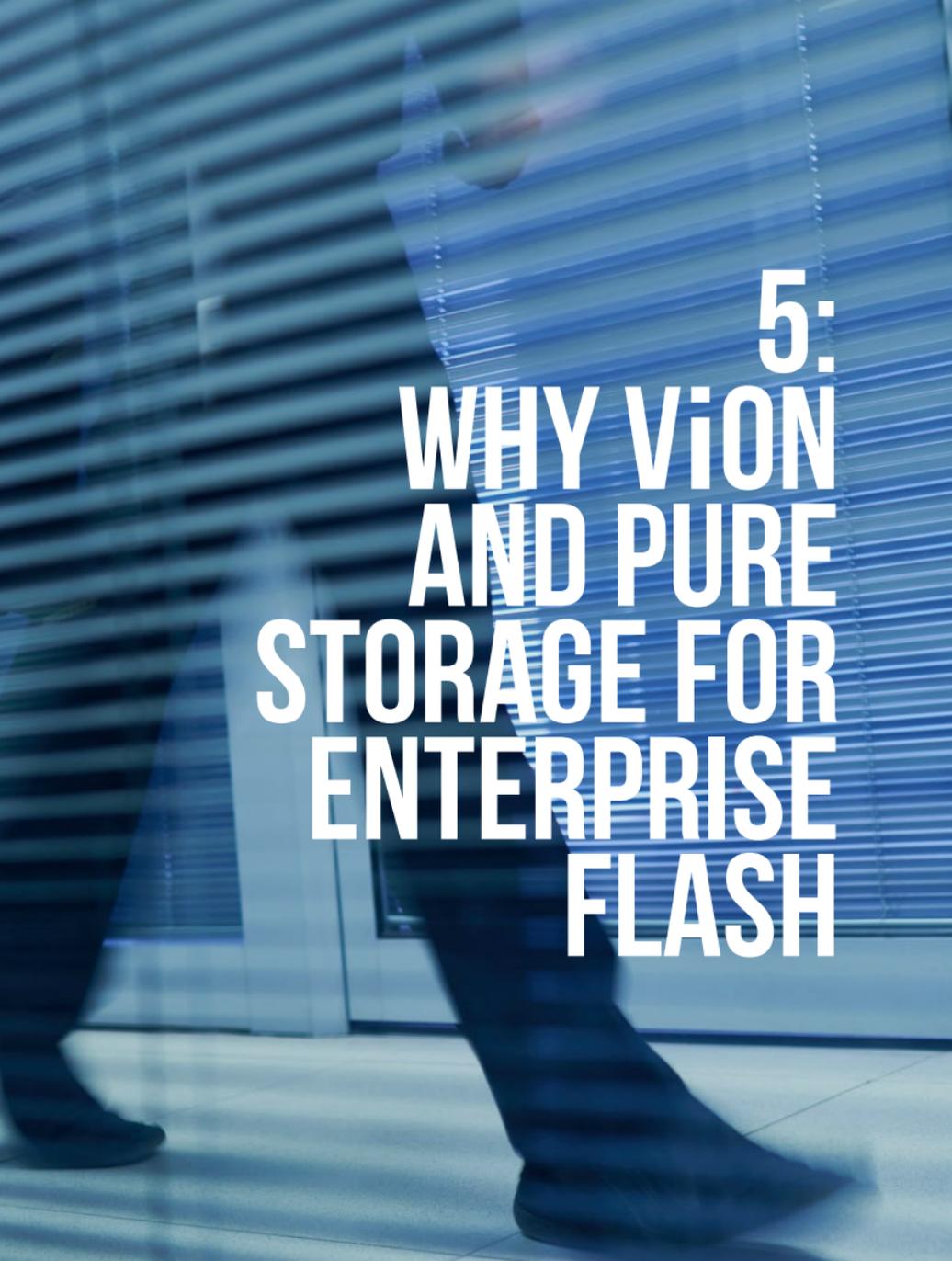
5:
WHY ViON AND PURE STORAGE FOR ENTERPRISE FLASH

ViON's experience with solid state storage dates back nearly 10 years to delivering DRAM systems deployed in support of digital signal processing in the federal marketplace. ViON has proven Flash past performance with experience selling, integrating and designing Flash-based solutions to the government and commercial markets. Your organization can trust ViON to know how to use Flash, where to deploy it, and how to integrate it.

Pure's Flash solution from ViON offers vast improvements in performance and dramatic cost savings as well as providing exceptional ease-of-use. In addition, Pure Storage provides the value-add features IT organizations have come to expect from their storage solutions—such as dedupe, snapshot, and compression. ViON and Pure are changing the enterprise storage model allowing organization to say goodbye to forklift upgrades, data migrations and planned downtime. With Pure's Evergreen® Storage solution, you'll get value and always-improving performance from your storage investment for 10 plus years, while saving time and money.

ViON is a veteran-owned, privately held company with over 35 years of experience delivering enterprise-grade storage to the federal and commercial marketplace. ViON works with the largest OEM suppliers in the industry to design and implement custom solutions that meet any IT storage or server need. ViON is well known for its engineering expertise and exacting standards. ViON's team ensures that only those with superior training, experience, and industry certifications design, install, maintain and support your storage solutions.

To provide the highest levels of customer care, ViON also operates two 24x7x365 support centers in the United States, staffed by U.S. citizens. Field and support engineers are located throughout the country, so your ViON storage team truly works where you work.

Contact ViON to learn how you can get ahead of your most pressing storage challenges with ViON and Pure Storage.

Visit **www.vion.com** to learn more