

Top 10 Things Supply Chain SaaS Providers Should Demand from **All-Flash Storage**

Supply Chain SaaS providers are helping businesses around the world offer more efficient streamlined services to their customers by operating in real-time and delivering at the speed of customer demand. It should come as no surprise that all-flash storage solutions are the linchpin of IT transformation in Supply Chain SaaS companies to drive innovation and achieve business goals. These demanding applications must be responsive, feature-rich, scalable and multi-channel in order to be effective. That's why IT leaders depend on all-flash storage. It is the only storage technology that enables them to achieve strategic business goals.

- **Advancing service levels:** Your clients rely on your IT infrastructure to keep their supply chain applications working on a daily basis. With all-flash storage as a foundation, you can deploy an exceptionally dependable, high-performance, secure and easy-to-manage infrastructure so you can retain and delight your customer base, maximizing opportunities for upsell and cross-sell.
- **Accelerating time to revenue:** It's a simple formula: The faster your company can develop, improve and upgrade its offerings, the more revenue it will generate. The IT infrastructure must support the tools and data accessibility requirements of modern agile DevOps environments.
- **Achieving operational advantage:** For the SaaS provider, the cost of IT is a large part of the cost of doing business. IT teams can give their businesses an edge by selecting and deploying infrastructure solutions that are uniquely cost-efficient to own and manage.

Your supply chain app suffers if your SaaS platforms don't deliver. The speed and reliability of all-flash storage translates directly into supply chain management application performance and profitability. So, for SaaS IT leaders, it's not a question of whether to use all-flash storage; it's a question of which all-flash architecture does the best job. Here are the top 10 features to look for, along with some of the reasons why Pure Storage has become one of the industry's leading suppliers of all-flash storage arrays to the supply chain SaaS providers:

No. 1: High Performance

Performance is typically the first reason a SaaS company will explore the use of all-flash storage. IT operations must be able to achieve higher IOPS and lower latency, and legacy spinning disk technologies are not up to the task. All-flash storage delivers at least 10X greater performance than spinning disks. With a Pure Storage all-flash array, you will be able to perform up to 100,000s of IOPS with an average latency of less than 1 millisecond.

No. 2: Consistent Performance

When you think about performance, don't focus solely on IOPS; it's also about consistency. Make sure you deploy an all-flash architecture that delivers consistent performance across all workloads, particularly if you are thinking beyond a single application or set of applications. For example, Pure Storage all-flash arrays are engineered from the ground up to deliver consistent sub-millisecond latency (even in mixed-workload environments). For SaaS providers with demanding applications, high and consistent performance enables customer expansion and optimum profitability. It also ensures that these providers can meet stringent client service level agreements (SLAs) and avoid any potential cost penalties for missing the SLA targets.

No. 3: Reliability

An all-flash array can deliver greater than 6-9s availability with 100% performance during maintenance and failures. Pure Storage all-flash arrays utilize a stateless controller architecture that separates the IO processing plane

from the persistent data storage plane. This architecture provides high availability with non-disruptive operations. No matter the application load, you can update your hardware and software and expand capacity without reconfiguring applications, hosts or IO networks, and without sacrificing performance. Reliable infrastructure minimizes customer churn and avoids the magnified future consequences of that churn on the rest of the business.

No. 4: Security

Security and compliance with respect to customer information are fundamental concerns for SaaS providers involved in supply chain management. If data is lost or there is a breach, it can be crippling to the business, not just from the standpoint of lost revenue, but also in damage to goodwill. A modern all-flash storage array can support the highest levels of security protection in a variety of ways, including encryption at rest and support for KMIP, IPV6, GDPR, Common Criteria, and FIPS.

No. 5: Management Simplicity

An all-flash storage array should be simple to deploy, manage and scale. Pure Storage all-flash arrays are virtually plug-and-play solutions that can be installed in less than an hour. They are so easy to deploy that storage administrators don't have to worry about configuration tuning and tweaking. In addition, they are simple to scale and upgrade: You can easily swap older technologies and replace them with newer technologies, online and without impacting performance.

No. 6: Efficient Snapshots

Snapshots have become important tools in all-flash storage because they provide support for Analytics and DevOps teams to leverage production data copies that are available often, easily and cost-effectively. Integrated accessibility to these data copies maximizes developer resources and enables bugs to be found earlier, as opposed to later when they become costlier to fix. They enable new features to get to market more quickly through Q/A testing against realistic, full-size datasets. Snapshots are another area

where Pure Storage has been an innovator. The company's FlashRecover Snapshots operate with zero performance penalties, zero recovery restrictions, zero data duplication, zero space overhead, fully replicable to other arrays. These efficiencies also make Pure snapshots ideal for rapid recovery capabilities from multiple points in time.

No. 7: Support For Development Tools

In addition to efficient snapshots, development teams rely on tools and APIs that allow them to do their jobs efficiently, collaboratively and productively. With Pure Storage all-flash arrays, DevOps teams can take advantage of features such as a fully-featured RESTful API and integrations or SDKs with a broad array of platforms, including VMware, PowerShell, Python, Docker, Kubernetes, Ansible, SALT, Puppet, OpenStack and OpenShift. Additionally, Pure Storage FlashArrays enable Supply Chain SaaS companies to publish new software releases more frequently – without downtime, thus enabling them to improve quality of deployed applications, allow companies to react faster to customer feedback and result in increased revenue and reduced customer churn.

No. 8: Lower TCO

As the price of solid-state storage has come down, all-flash arrays have become much more competitive with traditional spinning disk arrays from a simple cost standpoint. When you look at other aspects, however, all-flash arrays offer lower total cost of ownership (TCO). Key factors include reducing server and software licensing fees, reducing the storage footprint through deduplication and compression, and lowering related energy consumption and floor space. Through industry-leading inline deduplication and compression—along with thin provisioning, space-efficient snapshots and clones—Pure Storage all-flash arrays can reduce the storage footprint by a ratio of 5:1 and more, depending upon the application and workload.

No. 9: Converged Infrastructure

Deploying, operating, and maintaining data center infrastructure based on legacy architectures can be complex, time consuming, and costly. Converged infrastructure solutions address these issues through pre-integrated and pre-validated designs backed by unified support offerings. FlashStack™, a Cisco® and Pure Storage® converged infrastructure solution, combines best-in-class computing, network, storage components into a single, integrated architecture that accelerates time to deployment, lowers overall IT costs, and reduces deployment risk for SaaS IT.

No. 10: Operational innovation

Pure Storage has pioneered a new model for purchasing, upgrading and migrating storage. Called Evergreen Storage, it leverages the modular and stateless design of Pure Storage all-flash arrays. With this model, you purchase a maintenance contract that includes controller upgrades every three years. In an all-flash array, fresh controllers not only provide greater performance, but also greater scale and density due to the ability to address more and denser flash. With Evergreen Storage, customers can also upgrade to denser capacity technologies at any point in the lifecycle, with a trade-in credit for existing capacity. Thus, unlike the typical upgrade and replacement cycles for storage, Evergreen Storage allows a customer to never rebuy the same terabyte of storage. SaaS infrastructure can always stay current with the latest technology at a fraction of the cost it would require to purchase new equipment every three or four years, the traditional lifecycle for storage solutions. Customers now have even more flexibility with the recently announced Pure Evergreen Storage Service (ES2) for pay-per-use on-premises storage, as well as new Evergreen Gold and Silver benefits that extend the life of Pure's existing Right-Size Guarantee with any capacity expansion - indefinitely. With ES2, organizations can now leverage cloud-like, Storage-as-a-Service to adapt to fluctuating capacity requirements.

Taking the next step

Supply Chain SaaS providers live in a dynamic industry. Companies have to adapt quickly to customer demands, support mobility, drive innovation, eliminate downtime, ensure security and continually upgrade performance—all while satisfying the needs of customers 24/7 year-round. The pressure on IT operations in these companies is enormous and relentless. Any failures on IT's part can have a devastating impact on the business.

That is why IT professionals have to be meticulous in the technologies they deploy and the partners they choose. All-flash storage has become a foundational technology for these companies: It is nearly impossible to conceive that they could survive without it.

But there are differences among the all-flash arrays available in the marketplace, so it is important that IT professionals understand those differences and what they can mean for their organizations. When it comes to meeting the specific

needs of SaaS IT —performance, reliability, security and all of the other criteria outlined in this white paper— Pure Storage offers unique value versus other all-flash storage providers.

Pure Storage all-flash arrays have been designed from the ground up to meet the demands of the cloud era. Moreover, Pure Storage has been an innovator in designing storage solutions and business models, such as Evergreen Storage, that help SaaS customers achieve their critical goals of advancing service levels, accelerating time to revenue and achieving operational advantage.

For information on how your organization can leverage all-flash storage to support its business needs, please visit Pure Storage at purestorage.com/SaaS.
