WHY PURE STORAGE FOR SAP SOLUTIONS?

The top 10 reasons why you want Smart Storage

Solutions to modernize your traditional SAP and

SAP HANA environments

PURESTORAGE®

TOP 10 REASONS YOU WANT PURE STORAGE SOLUTIONS

Effortless

1. **SIMPLICITY**
Access true simplicity for SAP solutions

2. **ZERO DOWNTIME, ZERO IMPACT**
Modernize your SAP environment or run SAP HANA with no downtime

3. **HIGH AVAILABILITY (HA)**
Obtain greater than 99.9999% availability for SAP solutions

Efficient

4. **PERFORMANCE**
Gain unprecedented performance for SAP and SAP HANA environments

5. **DATA MANAGEMENT**
Realize rapid data management and dramatic data reduction

6. **VIRTUALIZED SAP**
Make use of best-in-class virtualized SAP solutions

Evergreen™

7. **SCALABILITY**
Deploy only what you need, when you need it, with no migration

Even More

8. **ROI AND COSTS**
Realize higher return on investment (ROI) and lower costs

9. **COLLABORATION**
Benefit from the strong partnership between Pure Storage and SAP

10. **CREDIBILITY**
Access a solution used by thousands of satisfied customers worldwide

// CLICK ANY REASON TO FIND OUT MORE

| SIMPLICITY | ZERO DOWNTIME, ZERO IMPACT | HIGH AVAILABILITY | PERFORMANCE | DATA MANAGEMENT | VIRTUALIZED SAP | SCALABILITY | ROI AND COST | COLLABORATION | CREDIBILITY |

EFFORTLESS

1. SIMPLICITY

ACCESS TRUE SIMPLICITY FOR SAP SOLUTIONS

Pure Storage all-flash storage can transform your business with simple, effortless, accelerated access for SAP and SAP HANA environments.

Quick and Simple to Install

Pure Storage takes half as long to deploy compared to other storage solutions. You can set up and optimize your Pure Storage all-flash array in hours, not days — no tuning or workload-specific setup is required.

The Pure Storage all-flash-array solution's simple, rapid deployment has been fully tested, validated, and documented against other all-flash-array solutions by an actual Pure Storage customer.

50% FASTER TO DEPLOY

Deployment for Pure Storage takes hours!
Deployment for other solutions takes days.

Data Management in a Snap

Fast and efficient Pure Storage snapshots let you automate the copy, clone, and refresh processes and reduce the time to copy, clone, and refresh by up to 90%.

Snapshots also let you automate the backup and recovery processes, so you can achieve low recovery-time objectives (RTOs) and recovery-point objectives (RPOs) — without investing in backup and recovery tools!

Single-Platform Simplicity

Pure Storage solutions let you run dev, test, quality assurance (QA), production, and SAP and SAP HANA solutions on the same Pure Storage all-flash array. You can eliminate the need to run mission-critical SAP workloads in silos on separate platforms.

Business-Card-Sized Getting-Started Guide

The Pure Storage all-flash array's getting-started guide fits on a business card! And once you're up and running, you can enjoy an easy-to-use solution with ongoing low maintenance requirements.

"PURE JUST MADE EVERYTHING A LOT EASIER."

— Justin Stottlemyer, Fellow, Shutterfly

SIMPLICITY	ZERO DOWNTIME, ZERO IMPACT	HIGH AVAILABILITY	PERFORMANCE	DATA MANAGEMENT	VIRTUALIZED SAP	SCALABILITY	ROI AND COST	COLLABORATION	CREDIBILITY

EFFORTLESS

2. ZERO DOWNTIME, ZERO IMPACT

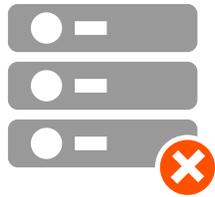## MODERNIZE YOUR SAP ENVIRONMENT OR RUN SAP HANA WITH NO DOWNTIME

Zero Downtime

With Evergreen™ Storage by Pure Storage, you can access the latest, most efficient hardware and software for your single data platform and for transactional/analytical SAP landscapes with no downtime, no disruption, and no data migrations.
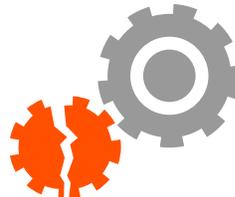
Zero Impact

You can run your SAP or SAP HANA environment on Pure Storage FlashArray//m without impacting your internal systems. You can run online transaction processing (OLTP) and online analytical processing (OLAP) solutions in parallel on the same all-flash storage platform, which lets you run your mission-critical SAP applications on a single platform with no impact.

Zero Compromise

Pure Storage FlashArray//m uses zero data footprint to copy or clone entire SAP landscapes in seconds and with no performance degradation.

ZERO DOWNTIME + **ZERO IMPACT** + **ZERO COMPROMISE**

"I MIGHT WORRY ABOUT THE NETWORK, ABOUT MEMORY, ABOUT PROCESSING. BUT I NEVER WORRY ABOUT STORAGE. PURE HAS BEEN A GAME-CHANGER FOR US."

— John McConnell, IT Manager, University of Texas, Dallas, School of Engineering

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EFFORTLESS

3. HIGH AVAILABILITY (HA)

OBTAIN GREATER THAN 99.9999% AVAILABILITY FOR SAP SOLUTIONS
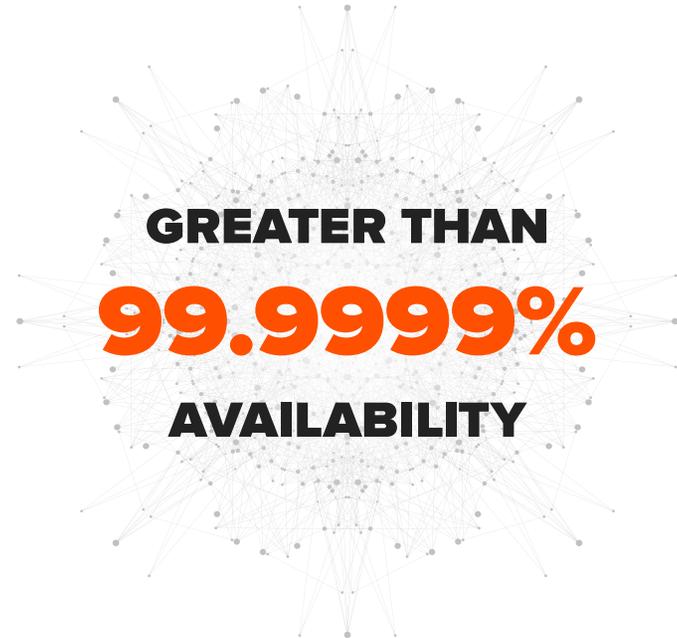
Get Six-Nines Availability

FlashArray//m delivers greater than 99.9999% availability, which means your data is always available, always performing, and always protected — and with no performance loss.

- A clustered-controller design allows for the complete failure of a controller or any controller component without impacting operations.
- Flash modules, non-volatile RAM (NVRAM) modules, and controllers are hot-swappable for continuous operation, even when recovering from a failure.
- A stateless-controller architecture means that you can simply unplug a failed controller, cable up a new one, and your FlashArray is back to full availability — all without any impact on performance.

Predictive support lets Pure Storage anticipate vulnerability to known issues and take preemptive action to minimize downtime risk.

Benefit from Support for SAP Consistency Groups

Simplified snapshots let you rapidly copy or clone entire SAP environments with zero data footprint and no performance degradation. Pure Storage supports SAP consistency groups to help ensure data integrity and consistency across all of the data in your systems.

GREATER THAN
99.9999%
AVAILABILITY

"A HIGHLY AVAILABLE AND RELIABLE STORAGE SOLUTION THAT DELIVERS CONSISTENT PERFORMANCE DURING OUR BUSIEST TRAFFIC TIMES."

— Dan McCormick, COO, Shutterfly

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EFFICIENT

4. PERFORMANCE

GAIN UNPRECEDENTED PERFORMANCE FOR SAP AND SAP HANA ENVIRONMENTS

Accelerate Performance

SAP HANA accelerates data — and Pure Storage accelerates SAP HANA *and* other SAP solutions. So much so that with SAP software running on Pure Storage technology, you can achieve the predictable performance of SAP HANA with traditional SAP environments — even for mixed workloads.

10X
Accelerated performance for SAP solutions compared to traditional relational databases

7X
Faster performance for SAP HANA

Leave Latency and Delta Lag Behind

Pure Storage uses flash instead of disks, which eliminates the performance delays caused by the inherent latency of disk storage. With latency out of the way, Pure Storage can help you run OLTP and OLAP solutions in parallel on the same all-flash storage platform — even for SAP software. You can run SAP software 10x faster than on disk storage. And you can use the same certified Pure Storage all-flash arrays to migrate to SAP HANA.

Once you've moved to SAP HANA, you can still enjoy accelerated performance — 7x the performance of a traditional disk environment — with no delta-merge lag for SAP HANA.

A critical function within SAP HANA is the transformation of data from delta storage, which is write optimized, to main storage, which is optimized for read performance and memory consumption. Query performance will decrease dramatically if storage can't handle delta merge quickly and efficiently. Unlike disk-based storage, Pure Storage all-flash delivers no delta-merge lag, which means SAP HANA operates with maximum efficiency, and your business's responsiveness and agility can grow.

Recover Rapidly

Pure Storage snapshots are nearly instantaneous and extremely space-efficient — even when data volumes are large. This allows system administrators to speed up the backup/recovery process with minimal effect on production environments.

8X
Faster recovery and failover times

14.5 SECONDS
Time needed for a snap-clone-SID change with Pure Storage — compared to six to eight hours with disk storage

> "FROM A USER PERSPECTIVE, IT [PURE STORAGE] MEANS NO MORE SLOWDOWNS. AS FOR GENERAL USER COMPLAINTS ABOUT SLUGGISH RESPONSE, YOU JUST DON'T SEE THAT WITH PURE."
>
> — Mathew Morgan, VP of Information Technology, Red Hawk Casino

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EFFICIENT

5. DATA MANAGEMENT

REALIZE RAPID DATA MANAGEMENT AND DRAMATIC DATA REDUCTION

Make Data Management a Breeze

Pure Storage snapshots make data management nearly instantaneous and extremely space-efficient — even when managing large volumes of data. The largest SAP landscapes can be copied, cloned, and refreshed — and at speeds up to 90% faster than with disk-based environments. In addition, you can create unlimited copies of your SAP environment for development and to test as you increase modernization.

90% FASTER
Times to copy, clone, and refresh even the largest SAP landscapes

Makes Use of Deduplication and Compression

Pure Storage solutions include both in-line lossless deduplication and compression for ultimate data reduction. You can realize data reductions of 5 to 10x — 4x for SAP and 1.9 to 2.3x more data reduction than SAP HANA provides on its own.

5–10X
Data reduction

1.9–2.3X
More data reduction than SAP HANA alone

"OUR ANALYTICS APPLICATION WAS BRINGING OUR HIGH-END DISK STORAGE ARRAY TO ITS KNEES. MOVING TO PURE STORAGE GAVE US TONS OF PERFORMANCE HEADROOM."

— Jeff Geltz, CIO, Mattersight

EFFICIENT

6. VIRTUALIZED SAP

MAKE USE OF BEST-IN-CLASS VIRTUALIZED SAP SOLUTIONS

Access All the Benefits You Need to Virtualize

You can run virtualized traditional SAP software and optimize SAP HANA when you run your SAP solutions on Pure Storage. Pure Storage offers full VMware integration. And Pure Storage supports all VMware data-management and data-protection features — at no added cost — including:

- VMware vSphere HA
- VMware vSphere Distributed Resource Scheduler (vSphere DRS)
- Certified support for VMware vCenter Site Recovery Manager
- VMware vSphere vMotion
- VMware vSphere Fault Tolerance (vSphere FT)

FlashStack converged infrastructure for VMware vSphere is designed for virtualization and is fully tested, fully supported, and fully customizable.

VMWARE VSPHERE HA

VMWARE VSPHERE DISTRIBUTED RESOURCE SCHEDULER (VSPHERE DRS)

VMWARE VCENTER SITE RECOVERY MANAGER

VMWARE VSPHERE VMOTION

VMWARE VSPHERE FAULT TOLERANCE (VSPHERE FT)

"I DON'T EVER NEED TO USE A PHYSICAL HOST AGAIN. PURE STORAGE ENABLES ME TO VIRTUALIZE EVERYTHING."

— David Comben, Head of IT, Investec Asset Management

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EVERGREEN

7. SCALABILITY

DEPLOY ONLY WHAT YOU NEED, WHEN YOU NEED IT, WITH NO MIGRATION

Access Easy, Realistic Upgrades

The unique Pure Storage architecture is defined by software that is modular, stateless, scalable, field serviceable, and field upgradable.

1X
Deploy once and upgrade as needed for 10 years or more

Always Have the Right Size SAP Environment

Evergreen Storage, available with every Pure Storage FlashArray solution, lets you deploy once and upgrade when you need for a decade or more. With Evergreen Storage, you'll never deploy SAP software or SAP HANA on an undersized or over-utilized storage infrastructure. You can mix and match components online without performance disruption to keep storage dense, efficient, and modern. Benefits include:

- Annual controller upgrades and a free controller upgrade every three years with three-year maintenance and support renewal
- Continuous software upgrades and innovations
- Flat maintenance pricing

Evergreen Storage capacity consolidation lets you keep your media modern and dense as you expand. You can deploy SAP software on any FlashArray implementation — from 5 TB to more than 400 TB — without migrating data between storage arrays. And you receive credit for the terabytes that you already own when expanding or consolidating, so you never pay for a terabyte more than once.

Scale from
5 TB TO >400 TB
with no migration

Start Out Right — Guaranteed

The Pure Storage Right-Size Guarantee gives you guaranteed effective capacity, risk free and in writing, for six months.[1] Get 4x better data reduction and efficient, cost-effective storage without any risk of undersizing resulting from thin provisioning.

6 MONTHS
Guaranteed capacity risk-free[1]

"WITH EVERGREEN, THE LATEST TECHNOLOGY AND TOP PERFORMANCE ARE ALWAYS AVAILABLE TO US."

— Alexander Ietan, IT Infrastructure Coordinator, Kremsmuller Group

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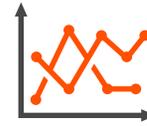
8. ROI AND COST

REALIZE HIGHER ROI AND LOWER COSTS

Realize a Rapid ROI

A Pure Storage all-flash solution enables you to replace legacy disk storage and realize up to 102% ROI in just 14 months according to a Forrester Total Economic Impact Study.[2]

Achieve One of the Lowest Total Costs of Ownership (TCOs) Available

The estimated cost per minute for SAP software downtime is $10,000 or more. Pure Storage delivers the lowest TCO with Evergreen Storage for SAP solutions, compared to customer downtime with other all-flash arrays, because it:

- Includes the Right-Size Guarantee that guarantees effective capacity, risk free and in writing, for six months[1]
- Helps reduce power, cooling, management, and space expenses
- Gives you continuous access to the latest storage infrastructure without added costs
- Offers automated built-in backup and restore capabilities to reduce the need for added software:
  - Traditional backup/restore software solutions are costly
  - Pure Storage snapshots are a simple, cost-effective way of creating full SAP application backups

102%
ROI achieved in 14 months[2]

UP TO 75%
Reduction in SAP HANA costs when using SAP HANA Dynamic Tiering[3]

<2 SECONDS
Impact on performance when using SAP HANA Dynamic Tiering for cost savings[3]

Reduce SAP HANA Costs

When you run SAP HANA on a Pure Storage all-flash solution and use SAP HANA Dynamic Tiering for warm data, it's possible to reduce overall costs up to 75% (about $2.5 million). And that can be done with minimal impact on performance — less than two seconds for 500 million records.[3]

Use Your Existing Hardware

With Pure Storage, you can use your existing hardware and infrastructure components for your SAP HANA environment. All Pure Storage solutions are certified in the SAP HANA Tailored Datacenter Integration (TDI).

"PURE SAVES A LOT OF MONEY, A LOT OF POWER, AND A LOT OF COMPLEXITY."

— Sasha Kipervarg, Senior Manager, Workday

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EVEN MORE

9. COLLABORATION

BENEFIT FROM THE STRONG PARTNERSHIP BETWEEN PURE STORAGE AND SAP

Benefit from Collaboration

Pure Storage is an SAP PartnerEdge program member, an SAP Application Development partner, and has completed qualification with the SAP HANA in-memory computing platform under the Certified Enterprise Storage program.

All Pure Storage FlashArray families are certified for SAP HANA TDI.[4] Pure Storage also supports SAP solutions running Sybase, Oracle, IBM DB2, and Microsoft SQL Server. Pure Storage develops and tests joint solutions and use cases at SAP's Co-Innovation Labs (COIL); and it is an active member of the Americas SAP Users Group (ASUG).

"PERFORMANCE IS CRITICAL IN THESE ENVIRONMENTS, AND SAP-CERTIFIED SOLUTIONS LIKE PURE STORAGE GIVE CUSTOMERS THE OPTION TO DEPLOY HIGH-PERFORMANCE FLASH ARRAYS WITH CONFIDENCE."

— Eric Burgener, Research Director, IDC

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EVEN MORE

10. CREDIBILITY

ACCESS A SOLUTION USED BY THOUSANDS OF SATISFIED CUSTOMERS WORLDWIDE
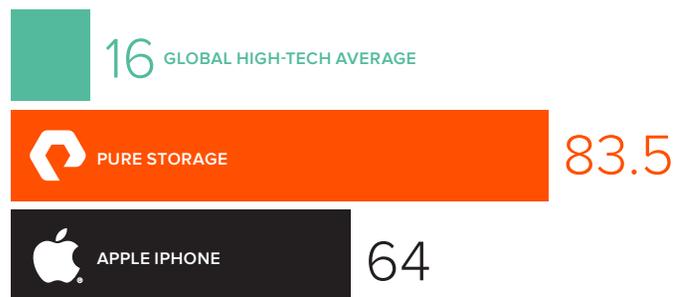
Don't Take Our Word for It, Take Our Customers' Words

More than 2,000 customers deploy and run mission-critical SAP instances and landscapes — traditional SAP software and SAP HANA solutions with Pure Storage.

Find customer success stories at **www.purestorage.com/customers.html**.

Consider a 2016 Net Promoter Score (NPS) of 83.5

With a Satmetrix 2016 NPS of 83.5, Pure Storage is the number one recommended technology vendor by a wide margin in the top 1% of audited scores.[5]

16 **GLOBAL HIGH-TECH AVERAGE**

PURE STORAGE 83.5

APPLE IPHONE 64

(As measured by Satmetrix 2016 NPS Global B2B Benchmarks.)

"WE JUST DON'T WORRY ABOUT STORAGE ANYMORE. THE PURE SYSTEM IS SO EASY TO USE AND MAINTAIN THAT WE DON'T EVEN NEED A STORAGE ADMINISTRATOR. WE'RE ABLE TO PUT OUR RESOURCES TO BETTER USE AND FOCUS ON OTHER, MORE STRATEGIC THINGS."

— Argenis Fernandez, Lead of Database Operations, SurveyMonkey

Pure Storage offers an all-flash point-storage solution, called **FlashArray//m**, and a converged-infrastructure solution, called **FlashStack**, which includes FlashArray//m along with additional networking components.

GET STARTED IN A FLASH WITH PURE STORAGE

Call or email using the link below to talk with the Pure Storage sales team or a Pure Storage SAP specialist and to request a demonstration of FlashArray//m in action.

800-379-PURE (7873)   //   sales@purestorage.com

1   Pure Storage. "Introducing the Newly Expanded Evergreen Storage – Guaranteed Capacity That Stays Modern and Dense." June 2016. **http://blog.purestorage.com/introducing-the-newly-expanded-evergreen-storage-guaranteed-capacity-that-stays-modern-and-dense/**.

2   Forrester. "The Total Economic Impact™ of Pure Storage FlashArray FA-400 Series Storage Solutions: Cost Savings and Business Benefits Attributed to Pure Storage." August 2014. **http://www.purestorage.com/content/dam/purestorage/pdf/AnalystReport/Pure%20Storage%20-%20TEI%20Case%20Study.pdf**.

3   Assuming a hardware, software, and licensing cost of over $2,484,000 with 100 percent of data in SAP HANA and hardware cost savings based on additional memory and CPU requirements and assumed license cost of 159,000 per 64 GB for SAP HANA Enterprise Edition and Maintenance. Savings increase with more data stored in and queried from SAP HANA Dynamic Tiering. "Lower Costs and Comparable Performance Justify Migrating to SAP HANA Sooner" **http://www.purestorage.com//content/dam/purestorage/pdf/whitepapers/PureStorage_SAP_HANA_Dynamic_Tiering_WP.pdf**.

4   SAP. "Find Certified Enterprise Storage." **http://global.sap.com/community/ebook/2014-09-02-hana-hardware/enEN/enterprise-storage.html#page=1**.

5   "Pure Storage Announces Industry-Best Satmetrix Net Promoter Score of 83.5," Pure Storage Blog, **http://blog.purestorage.com/pure-storage-announces-industry-best-net-promoter-score-of-83-5/**

PURESTORAGE®

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