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WHITE PAPER

Strengthened Data Protection and Availability on the Cloud

Maintain business continuity with a data protection and disaster recovery solution from Pure Storage and AWS

How do you maintain and ensure business continuity?

Data may fuel today's enterprises, but it's only as useful as the ability to make it available for exploration and collaboration. Today's evolving organizations bring a data-driven approach to everything they do—from changing their business models to extending new analytics capabilities across the organization. High data availability is fundamental to business continuity.

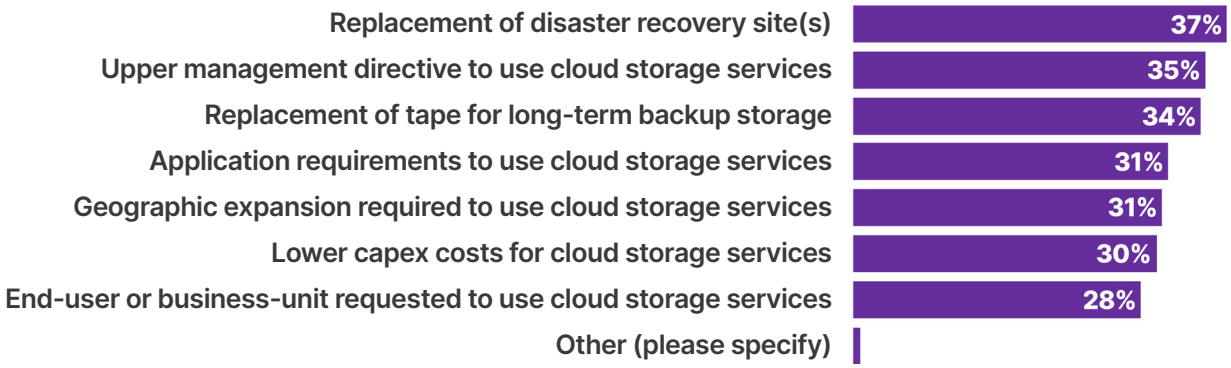
The ability to get the right data into users' hands at the right time is also central to data management and becoming a data-driven organization. Delivering insights when and where they're needed requires identifying the right data, ingesting and transforming it, and determining the right analytical framework to make sense of the data for each purpose. "Our data works as hard as our delivery drivers. It's all about speed—the ability to ingest data, analyze it, and feed it back into actionable channels," says Pure Storage customer Dan Djuric, VP of Global Infrastructure and Enterprise Information Management at Domino's.

With the reliance on data across the organization, a data protection and disaster recovery (DR) plan is not an option—it's a necessity. The threat of a mission-critical disaster is real and, with it the loss of time to recover data, worker productivity, revenue, and customer trust. Gartner reported that 76% of the companies it surveyed experienced significant downtime in the past two years requiring a DR plan, while more than 50% experienced at least two incidents.[1]

The number one reason for cloud adoption is the replacement of DR and secondary sites.[2] Yet, only 19% to 23% of organizations are using cloud-based recovery as their first choice of recovery tier continuity method.[1]

In this white paper, we'll explore the benefits of extending your DR plan to the cloud with Pure Cloud Block Store™, a software-designed storage (SDS) solution that brings your on-premises DR capabilities to Amazon Web Services (AWS).

Drivers for cloud storage adoption



Source: 451 Research's Voice of the Enterprise: Storage Data Management & Disaster Recovery 2020 Q: What is the primary driver for your organization's use of public loud storage services? (Please select all that apply.) Base: Respondents who have data being archived on public cloud infrastructure (n=186)

[1] Survey Analysis: IT Disaster Recovery Trends and Benchmarks, provided by Gartner for Pure Storage internal use, April 2020

[2] Multicloud and Hybrid Cloud, The Path Forward for Storage Infrastructure, 451 Research, July 2020

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Why extend DR to the cloud?

Customers expect companies to always be "on," providing products and services 24/7. For companies who weren't "born on the cloud," a disaster recovery plan may include a physical data center. But what happens if that onsite data center is flooded or you need to add more DR sites? **Does your organization have the time and money it takes to build new sites?**

Consider Bullhorn, a leading recruiting software provider, which was expanding rapidly due to acquisitions and customer demand. As the company grew, it needed to create new DR zones in cities such as London, England, but didn't want to spend time and money building new sites across Europe.

Instead of building new physical data centers, Bullhorn chose AWS for its cloud-based DR capabilities knowing that they would provide global coverage and high availability. Bullhorn moved 80 terabytes of data to Pure Cloud Block Store, an SDS solution, on AWS from a Pure Storage FlashArray. This allows Bullhorn to replicate customer data from storage arrays and treat virtual arrays as physical ones. The company can access that data on AWS because it's replicating data from the data center to the cloud.

Reduce hardware or site failure for better business continuity

When you deploy mission-critical applications, you need to ensure that your applications are resilient against single points of failure (SPOF). To protect against SPOF within native Amazon Elastic Block Store (EBS), you need to send copies of your data to secondary Amazon EBS volumes, effectively doubling your storage consumption.

Pure Cloud Block Store offers built-in protection against multiple concurrent Amazon EBS failures using RAID-HA. Furthermore, the architecture incorporates spread placement groups, reducing the physical fault domains. If a physical AWS failure occurs within an Availability Zone (AZ), the fault domains limit the failures from affecting multiple resources of a Pure Cloud Block Store instance.

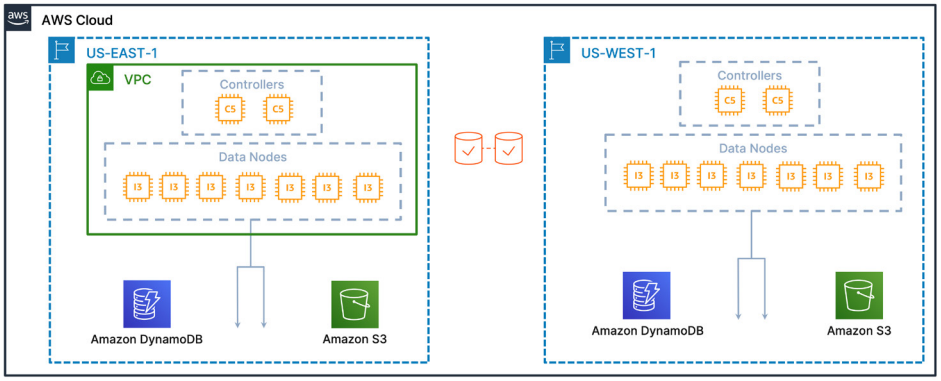
Pure Cloud Block Store enhances the resiliency of native cloud storage.

Achieve high availability and resiliency

You need a way to store and manage data easily between your on-premises environment and AWS. With Pure Cloud Block Store, you can leverage AWS as a DR target with its global cloud presence—76 AZs across 24 geographic Regions. This simplifies multi-site high availability for applications and data across geographically dispersed data centers. With Pure Cloud Block Store, you get:

- High availability and resiliency within an AZ or multi-regional AZs.
- Data and applications are automatically protected among AZs.
- Keep replicas in sync with production data sets.
- Multiple AZs on AWS are important to business continuity.

Cornerstone, a unified talent management company operating as a software-as-a-service (SaaS), quickly demonstrated that it could replicate data to multiple AWS Regions in an automated way while getting the same performance as its on-premises environment. The company found that it could easily scale storage from its FlashArray systems to AWS.



Pure Cloud Block Store performs asynchronous replication to multiple Regions in multiple AZs.

DR on the cloud is:

- **Resilient**—more so than a single appliance since it's offsite and can be in multiple places at once (multiple copies of data).
- **Scalable**—cloud consumption is on demand. You can scale up and down as needed.
- **Efficient**—in addition to capital expenditures (CAPEX) savings, having deduplication, thin provisioning and data compression with a leading SDS, cloud-based DR can result in lower TCO.

Data outages by the numbers

The review from 451 Research highlights the risks and costs of data outages and the need for proactive data protection.

Meet security and compliance requirements

Many organizations need to meet strict security and compliance regulations, such as the General Data Protection Regulation (GDPR).

Bullhorn needed to meet GDPR and SOC 2 requirements (a security standard for SaaS providers). The company needed to replicate its customers' sensitive data between data centers for protection from an outage. It also had to consider some of its European customers' physical data restrictions—those customers are not allowed to have data leave its countries. This meant that Bullhorn would not be able to replicate that data to its primary data center in the U.S. Using Pure Cloud Block Store on AWS, Bullhorn can easily replicate critical customer data between its physical data centers and AWS Regional AZs, meeting data sovereignty regulations.

Data integrity is also key. Companies need to protect customer data, but customers are also worried about those companies touching its data. Having a cloud-based DR strategy with the right SDS solution is essential to meet security, data integrity, and compliance requirements.

Better protect your data

Improving recovery point objectives (RPOs) and recovery time objectives (RTOs) is a top mandate that IT leaders must deliver against.[3] 24-29% of organizations Gartner surveyed target an RTO of one hour or less for all tiers of IT services.[1] Using Purity (Pure Storage's operating system), customers experience near-zero RTO with continuous asynchronous replication.

Cornerstone's two main trackers are RPO and RTO. In the event of an outage, the company's SLAs require it to restore a complete data set within 24 hours. Using Pure Cloud Block Store, Cornerstone was able to meet client SLAs for data protection and integrity while delivering the required storage capabilities for critical applications.

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[1] Survey Analysis: IT Disaster Recovery Trends and Benchmarks, provided by Gartner for Pure Storage internal use, April 2020
[3] Modernizing Data Protection white paper, Enterprise Strategy Group

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Reduce data and TCO

An SDS enables you to realize better TCO on account of CAPEX avoidance and data reduction. Bullhorn achieved this because of Pure Storage's thin provisioning, deduplication, and data compression. "We are spending 30 percent less for data storage and replication by using Pure CBS on AWS, because we don't have to maintain hardware while waiting for a disaster," says Ryan Nunes, enterprise systems architect at Bullhorn. "Overall, Bullhorn is projected to save $1.8 million over the next three years using the joint AWS and Pure Storage solution."

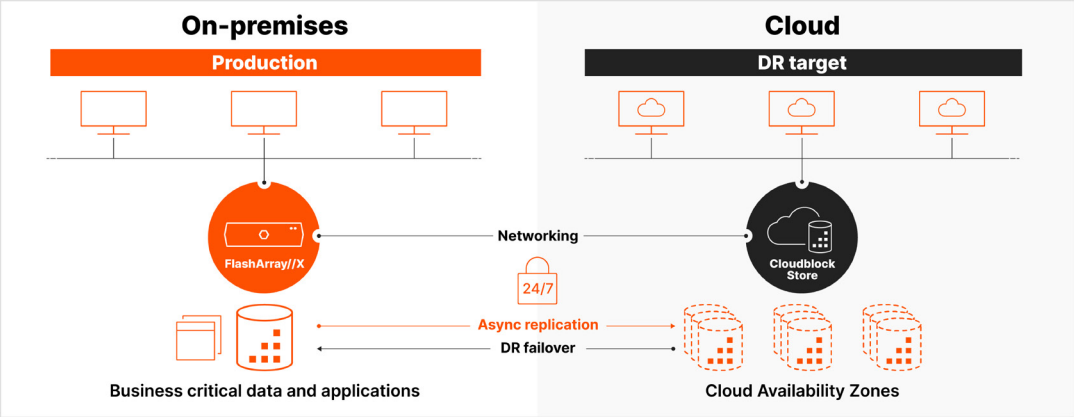
Pure Cloud Block Store enables you to reduce the cloud storage resources required to house your data, and experience predictable data reduction across hybrid cloud and AWS. With Pure Cloud Block Store, you can reduce your cloud consumption, realize significant cost savings, and expect a data reduction ratio of up to 4:1 for SQL and Oracle database, and up to 10:1 depending on the workload. The workload-dependent data reduction ratios are backed by Pure Storage's Cloud Efficiency Guarantee.

Nu Skin, a global provider of beauty and wellness products, experienced an 80:1 data reduction running DevTest on AWS using Pure Cloud Block Store. This improved the performance of its critical applications and, ultimately, reduced costs.[4]

Use Pure Cloud Block Store on AWS with multiple AZs in multiple Regions

You need not let the thought of comprehensive data protection and DR planning cause unnecessary panic. With Pure Cloud Block Store on AWS, you can enable flexible data replication between physical data centers and AWS while:

- Experiencing consistency across on-premises and cloud environments.
- Eliminating data silos with seamless data mobility.
- Achieving high availability and resiliency.
- Ensuring data integrity with always-on encryption.



Set up multiple high AWS Availability Zones on the cloud and replicate to them bidirectionally while keeping replicas in sync with master data sets.

Contact Pure Storage at 833-371-7873 or www.purestorage.com

About Pure Storage and AWS
Implement consistent disaster recovery on the cloud with the same operational practices you use on-premises.

aws partner network

Advanced
Technology
Partner

[4] Nu Skin Chooses Pure Storage for Hybrid Cloud Nirvana

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