Modern Data Protection for Higher Education

Protect campus-wide data and ensure continuity of operations.

Ensuring continuity of learning and research is a top priority for higher education institutions as any disruption threatens the student, educator, and researcher experience. Institutions require modern data protection that provides more than just an insurance policy for potential threats. Data protection is a vital component of the contemporary data center that encompasses multiple platforms and technologies, efficiently delivers critical data and applications with blazing fast restores, and lets institutions derive real value from data. It can also play a critical role in risk mitigation, protecting institutional reputation, and student satisfaction.

Data Protection Pain Across Institutions

Institutions have an abundance of data: course materials, student assignments, academic research, administration and admission files, and alumni relations materials. Modern institutions run on data, making data protection essential. Many institutions still suffer multiple data protection pain points that fall into four broad categories:

- **It's Complex:** Storage array protection features like synchronous replication are legendary for their complexity and fragility. Backup environments can become a mess of too many appliances and management silos.
- **It's Slow:** Backups take too long. Recovering critical databases or large file volumes can take hours, days, or even longer. Students, faculty, and researchers can't afford that much downtime.
- **It's Cloudless:** Legacy data protection lacks easy automation or integration with cloud services. Data re-use is cumbersome at best.
- **It's Costly:** Expenses for extra licensing for data protection features, repeated forklift upgrades and storage re-buys, and downtime and data migrations during upgrades all add up. Why is this acceptable? It shouldn't be.

Some—or all—of these pain points are likely on your mind. It's time to get modern.

Rapid Recovery

Don't wait for critical systems to get back on-line. Pure speeds data recovery to get you up and running fast.

Simplified Automation

Data protection is easier than ever with a unified management framework and storage designed with simplicity in mind.

Cloud Ready

Native cloud integration plus cloud-like management enables easy automation and data re-use.

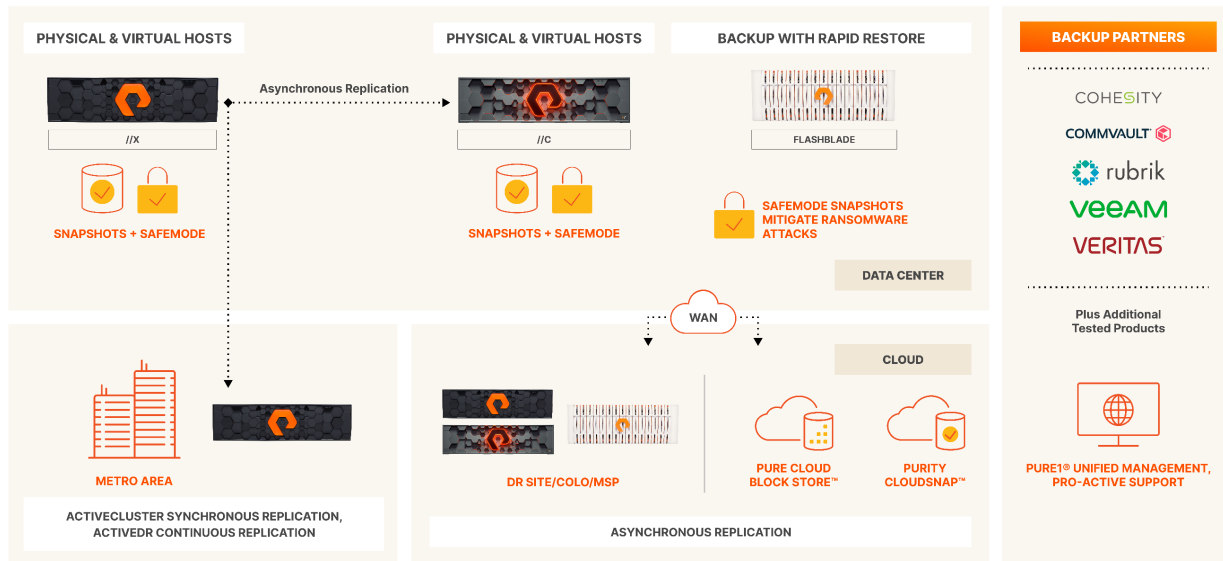## Modern Data Protection for Higher Education

Figure 1. Pure Storage provides end-to-end protection across the data center, remote sites, and the cloud. Using a wide range of technologies based on all-flash storage, Pure delivers data protection that is simple, fast, and efficient and lets you easily use your valuable backup data for other purposes.

Modern Data Protection for Modern Institutions

Legacy storage arrays and backup appliances can't meet the needs of modern institutions. Vendors may try bolting on new features to outdated product architectures, but they only make incremental improvements that fall short of the goal. At Pure, we've re-designed the storage array from the ground up with a sharp eye on data protection. And it shows.

Data protection is a big topic, but Pure's modern data protection can be summed up in four critical value areas.

Simplified Automation: The unified Pure1® interface enables you to manage all Pure products. Pure1 also automates many management tasks, delivers self-optimization, and even provides predictive support. Data reduction and encryption are always on. And Pure products are famous for how easy they are to deploy. To take one example, synchronous data replication on legacy arrays can take weeks to set up, and then remains fragile and difficult to modify. Compare that to ActiveCluster™ synchronous replication with Pure FlashArray™ storage, which takes less than 10 minutes to set up. It sounds impossible if you're used to legacy arrays, but we can show you how.

Rapid Recovery: The most important part of backup is recovering. Rapid recovery ensures that institutions can avoid major organizational disruption and financial impact; protect student, faculty, and other sensitive data; and stay focused on their important research and teaching initiatives. Pure snapshots make recovery nearly instant, no matter the volume size. For traditional backups, Pure FlashBlade® provides incredible restore speeds of as much as 270TB per hour. You don't even have to change your backup software. Just replace your current backup target with FlashBlade for turbo-charged restores.

In addition, Pure helps mitigate ransomware attacks by securing critical data from being altered or destroyed. Available with both FlashBlade and FlashArray systems, Pure SafeMode™ snapshots protect backup data and metadata by creating a secure copy. Ransomware can't eradicate, modify, or encrypt SafeMode snapshots, even if admin credentials are compromised. No

institution is immune to ransomware—they need to be able to recover data at scale, as quickly as possible, when systems go down. With just a few clicks, you can restore critical data quickly—and at scale.

Pure enables application business continuity with both ActiveCluster replication for campus-and metro-area distances and ActiveDR™ continuous replication that provides near-zero RPO across virtually any distance.

Cloud-Ready: Pure Cloud Block Store™ delivers seamless data mobility, data protection, and a consistent experience. It runs the same Purity storage operating system so all the workflows, scripts, etc. that you run in the data center function identically in the cloud, making application lift-and-shift easy. Pure Cloud Block Store simplifies DevTest, reporting, and other operations that can benefit from scalable cloud compute resources. Purity CloudSnap™ provides a simple mechanism for moving storage snapshots into the public cloud. Since Pure snapshots are portable, you can recover them to any Pure array, not just the array where they originated.

Cloud-ready is about agility and ease of use. Pure makes it easy to spin up data copies for business-value uses such as DevTest, analytics, and reporting. Multiple methods are available, including the REST APIs for FlashArray, FlashBlade, and Pure1, along with the SDKs (Python, PowerShell, Go, Ruby) and Infrastructure-as-Code libraries (Ansible, SaltStack, Puppet) built on top of them.

Subscription to Innovation: Budgets are tight due to increased expenses and declining enrollment in some segments, so institutions are more conscious than ever of where they make investments. Modern data protection from Pure includes modernized, cloud-like acquisition models that let you subscribe to innovation. You can purchase Pure solutions via traditional capital expenditures, but they are also available via subscription. Pure as-a-Service™ lets you purchase anything, even on-premises hardware, via a pay-as-you-go consumption model. Pure's industry-changing Evergreen Storage™ program keeps your technology up-to-date seamlessly, with no disruptive upgrades. With Pure, the Modern Data Experience™ is flexible and ongoing, ensuring you have access to the latest technology updates.

Making Data Protection Modern

Pure Storage® provides everything institutions need for a truly modern data protection experience. Modern data protection is fast, simple, and cost-effective. This enables institutions to safeguard data and ensure that students and staff can access and use data and that campus operations continue. Whether you target a few critical problem areas to start or dive in for the full experience, Pure can help make your data protection experience what it needs to be to make your institution more secure and successful and maintain an optimal user experience.

Additional Resources

- Get a deeper understanding of how FlashBlade can help with rapid restore of data.

- Find out more about modern data protection solutions.

- Learn more about protecting your educational institution from ransomware.

- Discover smarter education solutions.

- Speed time to benefit and accelerate your Modern Data Experience journey with help from Pure Professional Services.