SOLUTION BRIEF

Secure Mission-critical Data for PostgreSQL and Other Databases

Protect critical data with solutions from Pure Storage.

Data is the most valuable asset an organization has. The threat and costs of a data breach or loss can be devastating. Pure Storage® dramatically increases the speed of data restoration for PostgreSQL and other open-source databases. Pure also mitigates ransomware attacks by securing critical data from being altered or destroyed.

Open-source databases like PostgreSQL, MySQL, MariaDB, and others are gaining wide adoption in mission-critical production environments. Given their popularity, it's not surprising that many enterprises with these databases require continuous data availability, critical and operational data workload protection, and the ability to recover business operations in the event of data loss or system failure.

Ransomware Threats Are on the Rise

The number of ransomware attacks has been increasing dramatically. Researchers at Check Point Research say that ransomware has impacted an average of more than 1,000 organizations each week since April 2021. Businesses therefore want to protect their PostgreSQL data and have resources in place to get back to business quickly, in the event of a ransomware attack.

Modern Data Protection Solutions from Pure Storage

Pure Storage helps you address the most important aspects of protecting your data while eliminating the complexity of keeping your open-source database safe. Pure Storage FlashBlade is a unified fast file and object (UFFO) storage platform that is purpose-built for massive concurrency across all data types. PostgreSQL (like other open-source databases) comes with built-in data protection and recovery tools.

Fast Backup and Restore

- Backup speed > 33TB/hr[1]
- Restore speed > 23TB/hr[1]
- All-flash NVMe delivers superior performance, low latency and high throughput

Speedy, Scalable, and Secure

- Improved scalability and reduced management overhead
- Speed time to availability
- Immutable secure snapshots with SafeMode™

Powered by Intel Optane

- >17% performance[1] in read operations with DirectMemory Cache™
- Increased workload consolidation on a single FlashArray™

Additionally, it is also supported by a vibrant, third-party tool developer community for more advanced capabilities. For example, pgBackRest from Crunchy Data provides backup and restore functionality for PostgreSQL databases. Combining pgBackRest and FlashBlade delivers several benefits, including (but not limited to) recovery performance measuring many terabytes per hour, rich data services for replication, and ransomware protection with SafeMode™. By protecting PostgreSQL and using FlashBlade as the backup target, you can easily meet your most demanding recovery point objectives (RPO) and recovery time objectives (RTO). FlashBlade leverages massive parallelism to increase performance across all aspects of computational storage. This level of parallelism contributes to exceptional performance that scales with the system.
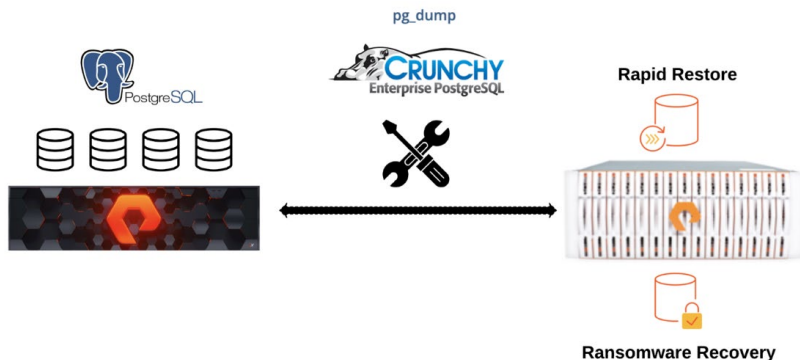

Figure 1: Pure Storage solutions for PostgreSQL and other open-source databases..

Comprehensive Disaster Recovery and Business Continuity

Data protection for PostgreSQL and other open-source database environments doesn't have to be complex. Pure Storage covers the entire spectrum of business continuity and disaster recovery use cases. Space-efficient, immutable, and local and remote snapshots are automated by end-to-end protection policies, delivering the flexibility and confidence to operate worry-free, even with increasing ransomware threats. Pure with ActiveCluster™ natively includes business continuity, so you can effortlessly and affordably achieve new levels of open-source database data availability across racks, data centers, or metro regions without additional hardware. Purity ActiveDR™ seamlessly protects application data across almost any distance while minimizing both recovery points and recovery times. And Purity CloudSnap™ provides effortless built-in cloud-based data protection for off-premises flexibility, longer-term retention, multiple recovery scenarios, and lower costs. Additionally, an Evergreen™ subscription from Pure eliminates the frequent re-buys typical of traditional legacy storage and provides the flexibility to acquire, run, grow, and modernize your storageAll projects, including data protection for open-source databases, can be complex and costly. Pure Professional Services offers consulting, workshops and migration services that can help you plan and execute these projects. Additionally, Pure as-a-Service™ offers a flexible consumption model and total data mobility without big capital investments or the risk of under provisioning.

Additional Resources

- Explore Pure Storage solutions for open-source databases.

- Read about rapid PostgreSQL backup and recovery.

- Discover the Modern Data Experience™ for MySQL and MariaDB.

---

[1] Based on internal Pure Storage testing and analysis. Your results may vary as differences in system configuration might affect actual performance.