

SOLUTION BRIEF

Microsoft SQL Server Backup and Restore with FlashArray//C

Optimize capacity and performance for SQL Server data protection.

Nearly all business applications have 24x7 operations that require planning and care to meet the customer requirements of access and availability. The same forces that drive businesses to demand high performance from their applications apply to data protection operations. In fact, the stakes are even higher. Denial of service attacks, ransomware, and even cloud service availability drive requirements for data protection to enable business continuity with the least amount of downtime possible. Before challenges to application availability appear, IT professionals need fast data protection because when disaster strikes, customers demand applications return to operation as quickly as possible.

For businesses with workloads on Microsoft SQL Server databases, Pure Storage® FlashArray//C provides a high-performance backup and restore solution to keep essential applications available. With integrated SafeMode™ protection against accidental or ransomware attacks, applications can remain available no matter what is trying to bring them down.

Complete Protection

When ransomware strikes, an application disaster occurs, or a hardware failure forces data recovery, knowing that you have a backup in place builds confidence in keeping your business moving forward. But having to wait hours, days, or—let's face it—weeks in



Native Access

SQL Server backup and restore via SMB file share and block storage



High-speed Throughput

Up to 23TB/h of restore and 11TB/h backup in sample configuration.



Compression

3:1 data reduction when SQL Server compression is off, 1.2:1 when compression is on.



Data Reduction

With 99.9999% of up time, your database will always be available.

some cases for a backup to restore can cause significant pain to the operation of the business. Missed orders, dissatisfied customers, delays in manufacturing, or even losing business are the reality when you're down. With the impact to the business mounting, every second counts. Proven 99.9999% availability from FlashArray™ gives you the peace of mind that your data is secure.

Utilizing Pure Storage FlashArray//X for the operational storage backend for Microsoft SQL Server offers extremely high-performance database performance. Adding FlashArray//C for backup and restore operations completes a high-performance strategy for data protection with quick backups, lightning fast restores, and SafeMode for ransomware protection. Combining Microsoft SQL Server with FlashArray//C for data continuity ensures that your data is available when you need it. Secure, highly scalable, and simple to use, Purity powers FlashArray//C to deliver comprehensive data services for performance-sensitive applications. For example, using SMB shares as the target for backups and moving from a single to multiple files, SQL Server backup duration improved nearly 70%.

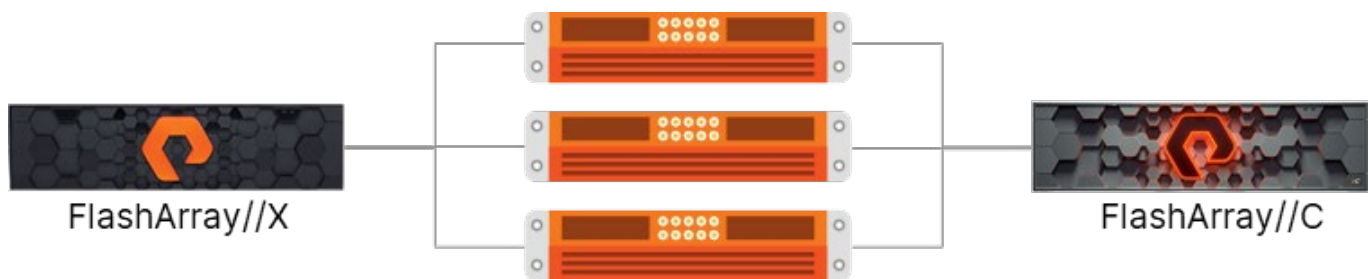


Figure 1: SQL Server with FlashArray storage for operational and data protection

FlashArray//C is the first all-quad-level cell (QLC) flash array. QLC flash is a capacity-optimized NAND flash memory technology that delivers a per-terabyte cost that matches or beats hard-disk drives (HDDs). Secure, highly scalable, and simple to use, [Purity](#) powers FlashArray//C to deliver comprehensive data services for performance-sensitive applications. Database administrators have the choice in configuring how to setup their backup infrastructure using either a block or file approach. Offering a consistent backup and restore experience with the simplicity of configuring the storage infrastructure reduces cost and complexity of the solution.

Ransomware Protection

With FlashArray from Pure Storage, you can experience a new approach to mitigating and remediating ransomware attacks. SafeMode, a built-in feature of the Purity operating environment, enables you to create read-only snapshots of backup data and associated metadata catalogs after you've performed a full backup.

With SafeMode enabled, snapshots cannot be altered, encrypted, or deleted—whether it's unintentional, by a rogue employee, or through a hacker's programmatic approach. To manually access or eradicate snapshots, only authorized personnel in conjunction with Pure Support can delete or alter snapshots, providing a virtual air gap that is automated

and simple to set up. If your environment suffers an outage, whether from a ransomware attack or another type of disaster scenario, your authorized administrator will contact Pure Customer Support where access will be authenticated. Once verified, you can recover your SafeMode snapshots to get your data back online quickly and safely.

Additional Resources

- Discover [FlashArray//C](#).
- Learn more about [SafeMode](#).
- [Test drive](#) modern database storage today to see how easy it is to use.

[purestorage.com](https://www.purestorage.com)

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