Panzura Freedom for Enterprise Database Backup and Disaster Recovery

Eliminate complex and costly database backup and recovery processes with a single solution that provides exceptionally fast recovery, affordable long term retention, and immediate regulatory compliance.

Enterprise databases, such as Oracle and Microsoft SQL Server, power critical applications and customer interactions. Performance is paramount and enterprises run them on the fastest flash storage offering sub-millisecond latency.

Given the critical nature of these databases, providing a backup service that is secure, reliable, and affordable, while still offering performant recovery that meets broad organizational requirements, is no small task.

The Problem: Complex and Costly

Database administrators (DBA) are predominantly concerned with keeping operations working with as little downtime as possible and never losing data. IT management may be focused on meeting backup SLAs, disaster recovery requirements, compliance and security, and retention policies over time.

In a typical enterprise configuration, all-flash arrays (AFA) or hyperconverged (HCI) systems are used to power databases. A primary server will provide database services while a secondary, shadow server will provide failover services in the event of a hardware failover. The secondary server will perform backup functions while the primary server handles production requests.
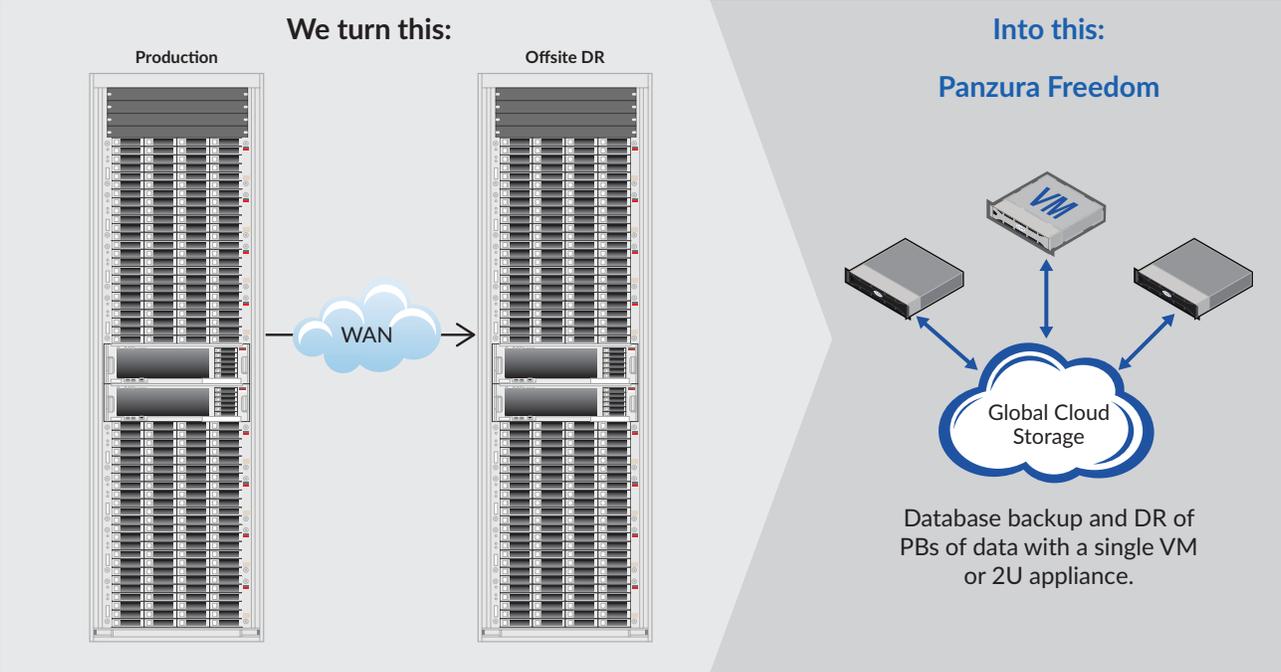
IT will perform standard backups from the secondary server to meet the long term retention policy. However, the DBA may

Highlights:

- Free 30-day trial; easy to download and setup
- Up to 70% cost savings over legacy solutions
- Regulatory compliance for offsite DR and security
- Automatic security with encryption for data at rest and in transit
- In-cloud restore options for cloud based DR scenarios
- Restore options for analytics, testing, and development

also be performing a secondary backup outside of the standard processes for increased database protection, or because the primary backup may not offer fast enough recovery. The result is multiple, expensive, redundant backup copies of the data and no guarantee of regulatory compliance.

Performing multiple, redundant backups under the legacy model is complex and costly. What organizations need is a simple and cost effective way to: (1) create and maintain a backup and disaster recovery solution for database backup files with the ability to recover quickly and (2) and a long term retention policy available at multiple sites with security to meet stringent regulatory compliance.

We turn this: Production — WAN — Offsite DR

Into this: Panzura Freedom — Global Cloud Storage

Database backup and DR of PBs of data with a single VM or 2U appliance.

The Solution: Simple and Cost Effective

Powered by Panzura CloudFS™, the first enterprise file system purpose-built for the cloud, Panzura Freedom™ is a hybrid cloud storage solution that provides near term backups that can be retrieved directly by either the DBA or IT. It provides both a performant local, all-flash backup target and recovery point to meet the fast retrieval requirements of the DBA, as well as a cloud solution that meets the long term retention and regulatory requirements of IT. An automated hybrid cloud implementation, Freedom provides both a DR solution where the data is restored off-site as well as multi-site restoration options.

Bottom line, Panzura can save you up to 70% cost versus legacy database backup and disaster recovery solutions.

Comprehensive Database Backup and Restoration

To effectively backup and manage a database requires a comprehensive solution that provides integrated data management, backup, replication, archival, and data recovery. Recovery includes not just the restoration of the database, but of the transaction log as well.

Panzura CloudFS provides an efficient method of backup, disaster recovery, and archival for databases as well as any associated log files and virtual machines (VMs). Content is protected through snapshots that can be restored to any given point in time on a granular basis with the cloud as the DR target. The combination of Panzura CloudFS, inclusive of being the primary storage, along with granular snapshots, and cloud storage with multi-filer access can provide a near zero recovery point objective (RPO). Local caching can offer immediate initiation of the recovery process.

High Performance NFS and SMB

To effectively provide backup and recovery services, any solution must be able to provide high performance NFS and SMB file access. Oracle databases will utilize Recovery Manager (RMAN) to write over NFS to a local mount point. Microsoft SQL Server uses their SQL Manager utility to write over SMB. Built for the enterprise, Panzura Freedom for enterprise database backup and disaster recovery delivers high performance file services for both NFS and SMB and will provide a local mount point for full consistency with existing processes. Unique high performance features, including an available NVMe SLOG, advanced deduplication and compression to maximize bandwidth, and patented Panzura SmartSync™ technology for immediate data consistency across all locations.

Long Term Retention

Long term retention policies can be met by configuring a Panzura snapshot policy where hourly, daily, weekly, monthly, and yearly snapshots are retained over the required period. This allows for a read-only copy of those targeted backups to be stored outside of the active file system. Local cache quickly performs database restorations such that cloud reads are avoided for near-term restores. Sufficient cache space can be provided to store all required backup and interim log files.

Recover Anywhere

Panzura CloudFS enables enterprise organizations to take advantage of the most cost effective and elastic storage available to store and manage data. CloudFS then adds in the flexibility to restore that data to any location, including multiple data centers and in-cloud compute locations for full cloud based backup and DR initiatives.

Automation

In the enterprise, any backup or data management policy must be fully automated and administrators must be able to programmatically enable processes to meet business objectives. Panzura CloudFS provides a fully programmable REST-based API to afford administrators and users maximum control of their data.

Development and Test

Organizations are constantly working to create new or improve existing applications that utilize their databases. To facilitate the development and testing of these applications, it is common for 0kb clones to be taken of database copies to enable development and testing teams to utilize production data without compromising the database in the process. To enable this functionality, CloudFS enables the restoration of production data in any new location which can serve the needs of the organization.

Security and Regulatory Compliance

Security and regulatory compliance are key factors that must be considered when backing up databases. Panzura Freedom is FIPS 140-2 compliant. AES 256-bit encryption protects data at rest. TLS 1.2 encryption secures data in transit. Strong, standards based authentication methods further restrict access. In addition, Panzura Freedom deduplicates and encrypts data before it is sent to the cloud, providing an additional layer of protection. The use of Panzura Freedom can instantly bring organizations into compliance with database backup requirements.

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