

Dell EMC PowerScale & dsmlSI for Databases Powered by Concat AG

Simplified integration of database backups into scale-out storage with Dell EMC PowerScale

Business Challenges

Enterprises of all sizes, in every market around the globe, are inundated with data and the associated storage costs. Data protection has become even more critical because of this data growth. To meet these demands, organizations are evaluating and implementing new technologies including scale-out physical storage, cloud services, data management, and archival solutions.

Solution Overview

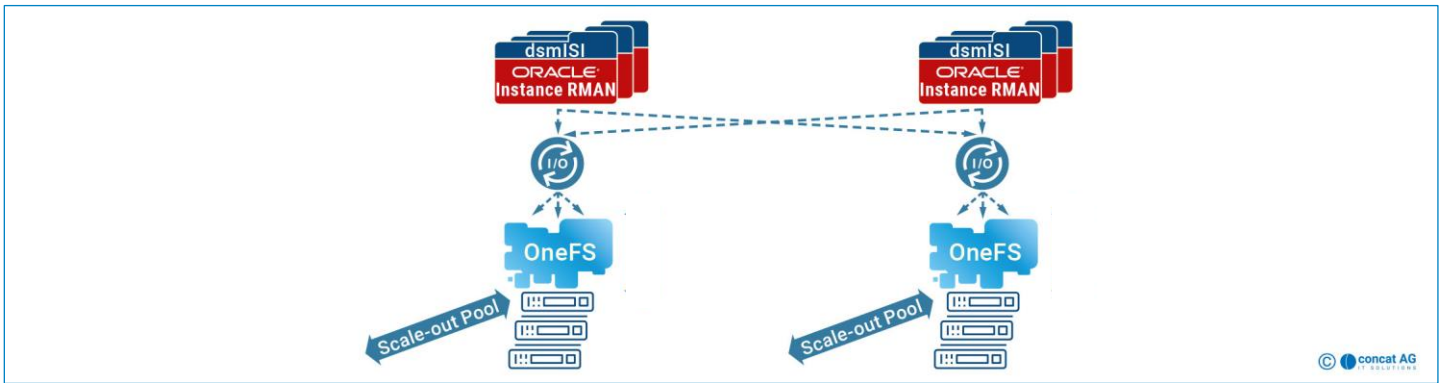
Dell EMC PowerScale provides market leading, massively powerful scale-out network attached storage (NAS) that can be simply integrated in backup repositories (e.g. Oracle RMAN) with General Storage dsmlSI solution powered by Concat AG. As a result, data throughput to the PowerScale cluster is increased, as is the performance of database Oracle RMAN backup and restore processes, due to the reduced impact of overhead processes. Delivering a simple, fast, effective way to backup/restore and scale with your environment - providing a formidable advantage as enterprises are increasingly relying on unstructured data for regulatory, analytic, and decision-making purposes.

PowerScale OneFS provides seamless scalability of performance, capacity, and availability of the target file system. But the scalability of throughput performance can be limited by how the application communicates with PowerScale nodes in a cluster. Backup/restore workloads often transfer a large amount of data in a limited number of streams to a potentially large number of PowerScale nodes. This limits the bandwidth of the backup/restore workloads to a fraction of a PowerScale cluster's performance capabilities. OneFS is designed to read and write many data streams in parallel and dsmlSI allows backup/restore data streams to utilize all available nodes simultaneously. Backups/restores will complete faster as more PowerScale nodes participate in the backup/restore processes.

Database backups and restores continue to significantly challenge many information technology (IT) departments. Constantly increasing capacities and requirements are demanding even more backup and recovery performance. Most traditional client server backup solutions cannot cope with these demands due to lack of scalability and flexibility. Complex agents are used to interface with the database backups supporting only a subset of available functions (like Oracle RMAN).

Essentials

- **Unleash the power**
dsmlSI unleashes the full performance of PowerScale for database backup like Oracle, Oracle Exadata, IBM DB2 and MSSQL
- **Utilize all PowerScale nodes**
dsmlSI enables all nodes in a cluster to participate in database backup/restore operations
- **Enable high performance backups**
PowerScale & dsmlSI significantly increase backup and restore speeds
- **Robust proven solution**
dsmlSI database has been in production environments with PowerScale since 2014
- **PowerScale is the market leader**
PowerScale is the number one Scale-Out NAS system as recognized by Gartner and IDC
- **Additional advantages:**
 - Dynamic multipathing: always uses network paths with the lowest latencies at runtime
 - Creates active NFS/SMB connections to all PowerScale nodes automatically
 - Load balancing over all nodes of a PowerScale cluster
 - Automatic detection of failure, removal, and additions of nodes in PowerScale clusters
 - Supports all RMAN/FRA options and methods



Dell EMC PowerScale as database backup/restore target

Why PowerScale for backup

PowerScale, the industry's number #1 scale-out NAS platform, is an ideal choice for storing, managing, and protecting unstructured data. It's simple to manage at nearly any scale and delivers unmatched storage efficiency and flexibility. PowerScale offers node types from blazingly fast non-volatile memory express (NVMe) nodes to hybrid nodes that are optimized for backup/restore and archive. PowerScale supports capacities in the range of 10s of terabytes (TB) to 10s of petabytes (PB) in a single cluster. Our extremely high-capacity single name space is ideal for backup/restore data sets of nearly any size. Other enterprise features, including backup snapshots, SmartLock for immutability, and Ransomware Defender all make PowerScale your best choice for backup/restore and archive of unstructured data.

Why dsmISI for PowerScale and native database backup

dsmISI Database delivers a simple solution for this limitation. Instead of using a complex but limited application programming interface (API) with Oracle RMAN, the database server is directly connected to the scale-out NAS system, Dell EMC PowerScale. With dsmISI Database a single command will configure a dedicated fast responding FRA (Flash Recovery Area) for each database. The areas are located on the PowerScale OneFS filesystem, which provides an almost unlimited number of parallel channels for backup and recovery.

The user does not need to worry about network file system (NFS) mounts, load balancing or the optimized distribution of capacity and bandwidth. No matter how many databases are managed: backup and restore have never been easier.

Take the next step

Contact your Dell EMC sales representative or authorized reseller to learn more about how PowerScale NAS archive solutions can benefit your organization. [Shop Dell EMC PowerScale](#) to compare features and get more information.



Many of the world's leading enterprises use dsmISI und Dell EMC PowerScale to bring enterprise backup and recovery services to their clients. Dell Technologies has worked with Concat AG and General Storage for many years, developing solutions that help organizations gain the greatest performance and value from their backup/restore investments.



Learn more about Dell EMC PowerScale solutions



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