Dell EMC PowerScale & dsmISI for Veeam Backups Powered by Concat AG

The fastest way to backup Veeam to PowerScale

Business Challenges

Enterprises of all sizes, in every market around the globe, are inundated with unstructured data and the associated storage costs. Data protection has become even more critical with this massive growth in data. 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 paired with Veeam Backup & Replication™ and General Storage dsmISI. Veeam's synthetic, full backup process, reduces the impact of overhead processes thus increasing data throughput to the PowerScale cluster. Delivering a simple, fast, effective way to backup and scale with your environment, and providing a formidable advantage as enterprises are increasingly relying on unstructured data for regulatory, analytic, and decision-making purposes.

PowerScale OneFS provides seamless performance, scalable capacity, and the availability of data anywhere. But the scalability of throughput performance can be limited by how the application communicates with PowerScale nodes in a cluster. Backup 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 workloads to a fraction of a PowerScale cluster's performance capabilities. OneFS is designed to read and write many data streams in parallel and dsmISI allows backup data streams to utilize all available nodes simultaneously. Backups will complete faster as more PowerScale nodes participate in the backup process. Veeam customers leveraging synthetic full backups only backup changed data. Because a synthetic full backup is synthesizing the full backup from the previous full and incremental backups, this process can result in high random input/output (I/O) activity on backup storage.

dsmISI enables Veeam to utilize XFS block cloning to dramatically reduce the impact of the synthetic full backups on PowerScale storage. By using pointers instead of reading the data from the past full and incremental backups to generate a new synthetic full backup file, customers retain the benefits of using synthetic full backups but reduce backup runtime and mitigate the impact on capacity.

Essentials

- **Unleash the power**
  dsmISI unleashes the full performance of PowerScale with Veeam

- **Utilize all PowerScale nodes**
  dsmISI enables all nodes in a cluster to participate in Veeam backup operations

- **Enable high performance synthetic full backups**
  dsmISI turns merging full and incremental backups into a fast operation

- **Robust proven solution**
  dsmISI 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

- **PowerScale is Veeam Ready**
  PowerScale has been tested with Veeam and has achieved Veeam Ready validation

- **Veeam is a market leading solution**
  Veeam is one of the most popular backup and replication applications on the market and is deployed over 400,000 customers worldwide
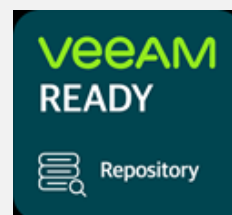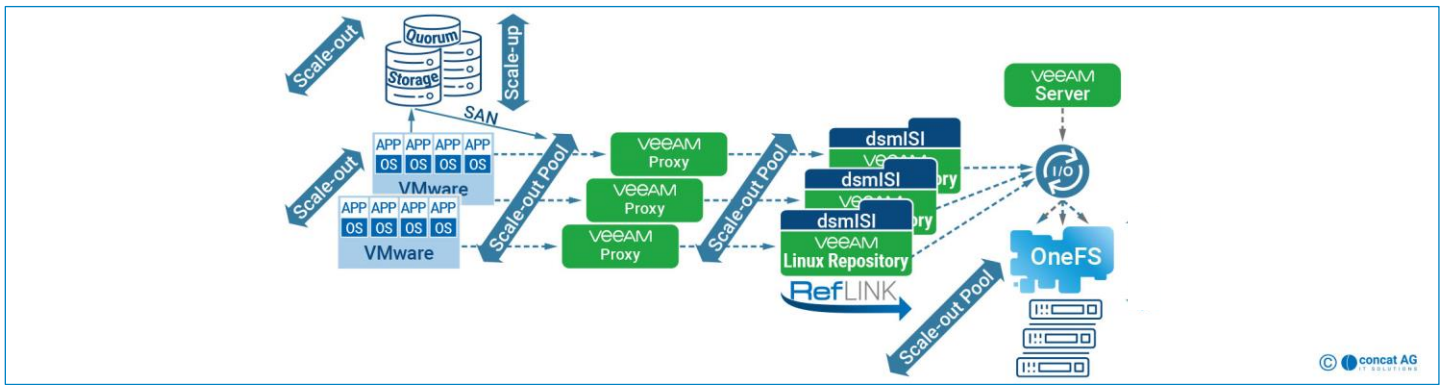
Dell EMC PowerScale as Veeam Scale-Out Backup Repository (SOBR)

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 and archive. PowerScale supports capacities in the range of 10s of terabytes (TB) to 10s of petabytes (PB) in a single cluster. The extremely high-capacity single name space is ideal for backup data sets of nearly any size. Other enterprise features included, such as backup snapshots, SmartLock for immutability, and Ransomware Defender all make PowerScale the best choice for backup and archive of unstructured data.

Why dsmISI for PowerScale and Veeam

By enabling Veeam Backup & Replication to utilize all PowerScale nodes in a cluster, while easily incorporating newly added nodes, dsmISI ensures PowerScale customers leveraging Veeam are able to maximize performance. dsmISI also reduces the time needed to build a synthetic back up from full and incremental backups while also reducing storage capacity requirements. In addition, dsmISI allows OneFS to support files larger than 16TBs with Veeam.

Why Veeam for Backup & Replication

Veeam's Backup & Replication provides a platform for data resiliency to protect all VMware workloads in a single experience, reduce operation costs, and drive guaranteed recovery. Veeam customers can recover guest operating system (OS) files, application items or even an entire virtual machine (VM) in minutes. And when it comes to recovery, Veeam solutions lower recovery time objectives (RTOs), simplify data recovery, and protect your data from ransomware and other threats with immutable backups.

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

Contact a Dell EMC Expert

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