

Gridstore: Scalable, Powerful and Affordable Data Storage Optimized for Veeam

Gridstore delivers software defined storage for the virtual environment.

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Gridstore's software defined storage model virtualizes the storage stack and uses a grid based architecture to scale capacity, I/O bandwidth and controller processing. By deploying virtual controllers to each host, each virtual controller can optimize independently to absorb and offload the random I/O produced from many backup jobs. On the capacity side, a storage grid is able to provide capacity per node at a price point that is ideal for the typical midrange virtualized data center without requiring a backplane network or 3-way replica for reliability. A grid provides the ability to 'scale small' initially and then to add nodes as capacity demands increase. Also, since these are modern era storage systems, they do not include features that VMware/Hyper-V or the VM backup application already provides, obviating the need to pay for the same feature twice.

The Grid allows organizations to start with what is necessary and add capacity as they grow, no need to rip and replace, or pay for more expensive storage systems. Businesses of all sizes run into data growth issues for their VM backups often forcing them to use expensive traditional storage systems that are overkill. Through Gridstore's Storage Optimized for Veeam, virtualization users now have the combination of Veeam's modern data protection management suite and the Grid's scalable, powerful and affordable storage target for VM data backups, retention and recovery.

Designing data storage for VM backups must be a part of your overall virtualization initiative

Unless planned and built into a virtualization implementation, data protection and recovery can be extremely complex and even impossible after certain system crash scenarios. This is because the physical servers can be operating multiple virtual workloads that are creating unique data at a rapid pace. To address this problem, the virtual workload image, called a VMDK, must be replicated to a shared storage device at frequent intervals in order to ensure the recoverability of data after either a virtual or physical machine crashes. The VMDK contains the run-time operating environment including operating system, application and dataset and must be saved intact in order for it to be recovered. As more workloads are virtualized, storage capacity requirements grow, often exponentially, in relation to the frequency of replication. Typical shared storage costs can become unsustainable very quickly, and businesses are forced to overspend on storage.

Gridstore and Veeam provide an ideal solution for VMware vSphere and Microsoft Hyper V backups

Veeam is a leading provider of data protection support within VMware vSphere and Microsoft Hyper-V implementations. Gridstore's storage Optimized for Veeam solution is the ideal storage target because it provides the ability to grow the Grid by adding affordable Gridstore storage nodes and provide 100% fault tolerant environment with instant access to data at the fraction of the cost of traditional storage systems. Gridstore has optimized the Grid's operation to make Veeam backup and recovery functions:

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- Scalable—you no longer have to forecast for capacity or worry about missed backup windows. You can scale capacity and parallel I/O into a virtualized pool of storage.
- Powerful –Because the vController can optimize for a specific workload, a significant amount of I/O can be handled locally. This enables key advantages like Instant Restore. In addition, Gridstore stripes across storage nodes to ensure the highest possible throughputs during critical restore operations.
- Affordable—Gridstore’s unique architecture eliminates the overhead, cost and complexity of specialized dedupe backup appliances. It also doesn’t require a backplane or replication of scale out architecture. The Grid and vController technology brings all the intelligence and processing closer to the host to optimize the unique I/O requirements of Veeam.

Why Gridstore can offer cost advantages over traditional storage systems

Gridstore combines commodity building storage blocks that allows storage capacity and performance to scale without limitations. As the Grid grows, data placement and access algorithms become increasingly efficient while tolerating failure of any component of the Grid without interruption of service. The Grid’s self healing capabilities allows storage capacity to be added in the event of failure, whether it be disk, network or any other failure affecting the backup job.. This provides the ideal backup target for VM backup environments at a much lower cost than traditional storage systems, specialized backup target or scale out storage.

Our Take

Gridstore has developed a solution Optimized for Veeam that scales capacity and performance to meet the demands of VM backup environments. This alone makes it an ideal target for data protection and backup recovery. With the Veeam certification and partnership, virtualization data protection and growth challenges can be met without exponential cost increases to legacy storage area network or network attached storage. The Grid should be considered as an important virtualization support environment for organizations of all sizes.

About Storage Strategies NOW™

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