ExaGrid vs Dell EMC Data Domain
Comparison for Veeam Environments

ExaGrid offers a unique architecture for backup including a landing zone and full server appliances in a scale-out architecture. This allows for faster backups, faster restores, a fixed backup window, fast instant recoveries and many other advantages, and includes an integrated Veeam-ExaGrid Accelerated Data Mover. Dell EMC Data Domain uses a fixed controller and disk shelf architecture (scale-up) with inline deduplication that slows down backups, slows down restores and instant recoveries, and burdens operations with expensive forklift upgrades.

	ExaGrid	Dell EMC Data Domain
Backup performance	Backups land to straight disk without any intensive inline compute processes. Backups are faster.	Performs compute-intensive data deduplication inline which slows backups down.
Backup performance with Boost	Not required as deduplication is not inline and does not impact the backup window. The Veeam backup server more efficiently inter-operates with its own Veeam data mover using optimized Veeam communications versus generic CIFS.	In order to improve inline deduplication and backup performance, some of the deduplication functions are completed on the Veeam servers which utilize valuable Veeam compute resources. Boost does not impact restores, instant recoveries, other vPower features like SureBackup, forklift upgrades, or any other area.
Backup window length	As data grows, full appliances are added with processor, memory, bandwidth and disk. In this scale-out approach, the backup window stays fixed in length as data grows.	As data grows, the front-end controller has to handle an increased workload without adding any additional resources except for disk capacity. In this scale-up approach, the backup window grows in length as data grows.
Restore performance	Most recent backups are kept in their full and undeduplicated form in a landing zone. Restores are as fast as reading from disk.	All backups are kept in a deduplicated form. For each restore request, the data has to be rehydrated before it can be restored. Restores take longer.
Instant recovery	The Veeam backup server more efficiently inter-operates with its own Veeam data mover using optimized Veeam communications versus generic CIFS.	All backups are kept in a deduplicated form. Before a VM can be booted, the VM has to be rehydrated which can take hours to occur.
Accelerated synthetic fulls	The entire synthetic full operation occurs on the ExaGrid appliance eliminating the need to move data between the Veeam backup server and backup storage, which greatly reduces the time to complete a synthetic full.	Data Domain Boost uses processing and memory on the Veeam backup server during all operations. Preparation of a synthetic full is accelerated, but use of that synthetic full still requires rehydration, slowing down all Veeam vPower operations like Instant VM Recovery, SureBackup, etc.
Optimized copy jobs	Retention of Veeam backups as weekly or monthy fulls is optimized using the integrated Veeam data mover, significantly reducing the network cost and load on the Veeam server. Copy jobs require no rehydration.	No optimization of retained Veeam backups. Veeam copy jobs incur a complete rehydration and high network and resource costs on the Veeam server.
Accelerated Veeam copy job	Veeam backup copies are performed on the ExaGrid using the integrated Veeam data mover accessing the most recent backup on disk, so there is no rehydration penalty, enabling fastest extended retention.	Veeam backup copies performed on the Veeam backup server and require complete rehydration of most recent full.
Expensive forklift upgrades	Forklift upgrades are eliminated as full server appliances with all resources are added into a single scale-out system. As data grows, processor, memory, bandwidth, and disk are added.	As data grows, only disk capacity is added. Since no additional processor, memory or bandwidth is added, the backup window continues to expand until the front-end controller is replaced with a bigger/faster and more expensive front-end controller.