DELL Technologies

Dell EMC PowerScale vs. NetApp ONTAP Arrays

Supports file system up to 60PB[1] Single flat namespace, globally addressable by all nodes in the cluster.		**Supports file system up to 100TB** Namespace consists of a hierarchy of Aggregates and FlexVols, addressable by a single controller.
Globally shared DRAM cache; cache size up to 94.5TB[2] Global cache is directly accessible to every node in the cluster.		**Shared-nothing controller cache; cache size up to 128GB** Controller based cache directly accessible to only a single controller in the cluster.
Massively scalable Namespace can scale across up to 252 nodes; throughput scales up to 945GB/s per cluster.[3]		**Less scalable** Namespace can scale across up to 10 nodes only; throughput scales up to only 300GB/s per cluster.
Multi-controller high availability architecture Multiple nodes sustain running workloads and can effect data rebuilds following failure of up to 4 nodes.		**Dual-controller high availability architecture** Single node sustains running workloads and can effect data rebuild following failure of 1 node.
Cluster-wide data deduplication Global variable-length data deduplication across entire cluster (up to 60PB).[1]		**Aggregate-wide data deduplication** Size-restricted fixed-block data deduplication at aggregate level (up to 640TB).
Policy-based self-optimization Automated performance optimization, workload balancing across cluster nodes and data lifecycle management within and across clusters and out to the cloud.		**Manual optimization** Manual, volume-by-volume workload balancing between controllers; no data lifecycle management within and across clusters.

1. Available in Isilon H5600 and A2000. Maximum cluster capacity varies by model. 2. Available in PowerScale F600. Maximum cache size varies by model. 3. Available in Isilon F800 and F810. Maximum throughput varies by model. Comparison based on Dell analysis using publicly available information, June 2020.