TOP TEN REASONS WHY CUSTOMERS DEPLOY MICROSOFT SQL SERVER ON XTREMIO X2

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1 | Simplicity for Ease of Deployment & Management

A typical Microsoft SQL Server deployment pre-allocates 10-30% of space that is zero initialized to anticipate data growth. XtremIO does not write zeros to SSD, which allows DBAs to be more generous in pre-allocating database files to avoid the performance overhead for growing them later. The storage admin doesn't need to worry about storage space being wasted, which allows for optimal over-provisioning and predictable growth.

2 | Consistent & Predictable Database Performance

Microsoft SQL Server Databases come with a wide variety of requirements, from OLTP workloads with high IOPS needs with low latency to lower IO OLTP needs with much higher throughput. XtremIO allows for the consolidation of all workloads on a single array. The balanced storage of data on SSDs combined with always in-memory metadata, yields sub-millisecond latency times that are consistent and predictable, while eliminating hot spots. XtremIO X2 accelerates SQL Server transaction log writes and delivers optimal performance for small block writes.

3 | On Array Compression for Improved CPU

Microsoft SQL Server DBA's will be very familiar with the native row and page compression options of Microsoft SQL Server. Compression and de-compression though are host CPU dependent, heavily so for page compression. Due to the possibly significant impact on query responses, care should be taken to evaluate the impacts at the table, partition, or even index levels. XtremIO's native compression can typically exceed the space saving capabilities of page compression without any CPU overhead. This allows the host CPU more cycles to fulfill queries.

4 | Data Reduction for Database Copies

The proliferation of copy data on production arrays isn't showing any signs of stopping and databases are a leading culprit. There are often needs for additional copies; test/dev, near real time analytics, patch testing, etc.. In a traditional storage environment, additional LUN capacity, reserved space by SQL, and used space would consume massive amounts of capacity. XtremIO eliminates all traditional concerns by only storing unique data that is added or changed from the point that the copy is made. The entire copy operation is handled in memory resulting unprecedented performance and zero SSD activity.

5 | XtremIO Virtual Copies Maximize Database Agility

The optimal way to re-purpose database copies is to leverage the snapshot capabilities of XtremIO, aka XtremIO Virtual Copies (XVCs). These virtual copies have the same performance and space efficiency with all the same inline data services as production. XVCs can capture a point-in-time view of a specific volume or set of volumes and be made available as immutable or writeable.

6 | Scale Up or Scale Out to Meet Database Needs

Even with all of XtremIO's data efficiency solutions, there may still come a time where the initial sizing no longer meets current needs. XtremIO X2 allows for scaling-up to as many as 72 SSDs in a single X-Brick with scale-out options, as well, to ensure that the thin provisioning benefits of the initial deployment remain undisturbed and we don't create multiple zones of deduplication. XtremIO X2 is capable of being scaled up in as few as 2 drives at a time and provides online cluster expansion for adding additional X-Bricks seamlessly.

7 | Integrated Copy Data Management

Building upon XtremIO X2's performance, scalability and XVC capabilities, Dell EMC's AppSync software provides policy based and ad-hoc, protection of databases based on configurable policies. This toolset allows the enablement of DBAs and application owners to provide protection and application consistent copies of databases for use in restores as well as manage the lifecycle of re-purposable copies.

With both pre- and post-script capabilities, a test/dev environment can easily be provisioned in a matter of mere minutes. For more complex needs, 2nd generation copy management is also provided to allow for a well-planned Production → Gold Master → to multi-developer XVC environment that can be easily refreshed by schedule or ad-hoc. Simplifying development cycles and maximizing the storage efficiency of the array and accelerate development timelines.

8 | Ensure Performance Where Needed Most

Even in all-flash environments, where sometimes the resources may seem limitless, there can be a desire to ensure optimal performance for production and limit certain systems. XtremIO X2 leverages policy based QoS to be able to reduce performance for non-critical, lower priority systems and ensure high priority applications receive the performance they need.

9 | Replicate Databases for Protection or Repurposing

With sub-30 second asynchronous replication being added to the XtremIO data services, SQL Server databases can be easily replicated for protection or repurposing on a separate array. XtremIO leverages the metadata information on both arrays to determine what blocks of data need to be moved across and does so in a compressed and deduplicated manner. Even in instances where the data has never been sent between two arrays, there is still the possibility that the data already exists.

10 | Future Proof for Peace of Mind

The Future-Proof Storage Loyalty Program is Dell EMC's customer program designed to provide investment protection with a set of world class technology capabilities and programs that enable Dell EMC's Storage products, to provide value for the entire lifetime of our customer's applications. The program includes a 3-year satisfaction guarantee, hardware investment protection, a clear price framework, a 4:1 data efficiency guarantee, never worry data migrations and more!

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