



Dell Fluid Cache for SAN: Frequently Asked Questions

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Frequently asked questions: Dell Fluid Cache for SAN

What is Dell Fluid Cache for SAN?

Dell™ Fluid Cache for SAN is a complete, flexible enterprise application acceleration caching solution that can produce extraordinary I/O performance which can help businesses and organizations reduce online transactional latency, allow increased concurrent users, and improve computational performance, for applications such as online transactional processing (OLTP) and virtual desktop infrastructure (VDI).

How does Dell Fluid Cache for SAN work?

Dell Fluid Cache for SAN is a scale-out caching solution that can accelerate application performance for multiple servers (a minimum of three servers is required) accessing data from a Dell Compellent™ SAN, leveraging the ultra-high speed caching pool.

What is required to deploy Dell Fluid Cache for SAN?

A complete solution that can be deployed with little to no disruption to existing IT environments, Dell Fluid Cache for SAN requires Fluid Cache software; a minimum of three compatible Dell PowerEdge Servers supporting Dell PCIe Express Flash SSDs; connection to a 10/40 GbE low latency private cache network; and connection to a Dell Compellent SC 8000 controller and Dell Compellent SC200, SC220 and/or SC280 storage enclosures with rotating drives, flash or hybrid configurations.

What benefits does Dell Fluid Cache for SAN offer?

Performance: Utilizing Dell Express Flash PCIe SSDs and Dell Compellent storage technologies, Dell Fluid Cache for SAN brings the most frequently accessed data closer to compute resources minimizing data travel from storage through the network, improving response time and accelerating both *reads* and *write* performance.

Flexibility: Adaptive, the solution offers database and virtualization performance, which can be scaled on the fly. Interoperability options can allow compatible server inclusion in the cache pool, revitalizing existing servers running virtually any application.

Stability: Maintain confidence that cache pool data is highly available and safeguarded by write-back caching technology with full coherency to Compellent storage, with no single point of failure from server to SAN.

Who can benefit from Fluid Cache for SAN?

Many businesses and organizations could benefit greatly from the Dell Fluid Cache for SAN solution, which can address issues with heavy to power read/write workloads such as OLTP and VDI.

How large can a Dell Fluid Cache for SAN cache pool become?

As business and workloads grow, Dell Fluid Cache for SAN enables scaling of the cache pool, which can help you meet computational demand. Dell Fluid Cache for SAN combines eligible cache from Cache Contributor servers to create the cache pool. The pool amount for computational use can be increased by either adding more cache to the existing Cache Contributor servers or by adding additional Cache Contributor servers into the existing cache pool.

What licenses are required for Dell Fluid Cache for SAN?

For each cache pool, a minimum of three licenses will be required for Dell Fluid Cache for SAN. One additional license will be needed for each server added to the cache pool.

What kind of PCIe SSD Flash can be used for the solution, and what are the benefits?

To both create the initial cache pool, and also increase the quantity of cache in the pool, Dell Express Flash SLC PCIe SSD, Dell Express Flash PCIe SSD MLC NVMe Drives*, or Micron® P420m MLC SSD cards**in validated Dell Servers will be required. Compatible Dell PowerEdge Servers that do not have hot pluggable capability can leverage Micron P420m SSD Cards.

Dell Express Flash PCIe SSDs are front-accessible and hot-swappable high performance storage infrastructure, which is localized within the server itself, providing the hardware foundation necessary for enterprise-class serviceability and availability.

For additional information about Dell Fluid Cache for SAN, please visit: www.dell.com/fluidcache or contact your Dell sales representative

* Supported in the R720, R920, R630, R730xd and T630 at this time.

**Supported in the R620, R720 and R820.