Dell | Microsoft SQL Server Fast Track v3.0 Data Warehouse

Solution Brief

Dell and Microsoft partner to deliver SQL Server Fast Track Data Warehouse to optimize and accelerate data warehouse deployments while minimizing cost and complexity. Dell provides reference configurations based on Microsoft best practices and guidelines creating a fully supported high performance configuration that allows businesses to quickly and efficiently order hardware, setup and configure minimizing testing and tunning.

Designed for customers that require high performance and capacity, the Dell PowerEdge R710 and Dell PowerVault MD3220 Direct Attached (DAS) 6Gbps SAS Storage deliver a powerful and cost effective configuration designed with best practices specifically for this hardware combination to minimize compleixty and optimize performance and reliability.

Offered in base configuration for single node operation with the option to implement highly availability for customers who require minimial downtime for production environments.

Key Features of the Dell | Microsoft Fast Track Solution include:

Detailed Rerence Configurations – simplify building and ordering hardware components.

Fully Suported – Enjoy peace of mind with full support from Dell and Microsoft.

Optimized for out-of-box performacne – Configurations that have been lab configured and tested to ensure complete balance throughtout the hardware stack.

Professional Services – Dell Services provides complete Business Intelligence services to accelerate planning and deployment.

Dell | Microsoft SQL Server Fast Track Solution Offerings

Configuration	DellStar Solution ID
FT-R710-Base	1407335.1
FT-R710-HA	1407293.1
FT-R710-High-Capacity	1407392.1

	FT-R710-Base	FT-R710-HA	FT-R710-HighCapacity
Description	Single Server Configuration Ideal for environments that can tolerate downtime or have other means to provide database availability. Upgradable to fully redundant configuration.	Redundant Server configuration Ideal for environments that require minimum downtime Microsoft Cluster Server (MSCS) Active/Passive to provide failover capabilities and ease of upgrades.	(Optional) Add (1-2) Dell PowerVault MD1220 array(s) to Base or HA FastTrack configurations to provide additional capacity. Does not provide additional bandwidth.

Server Overview

Server	Dell PowerEdge R710
Min Memory	96GB RAM (12x8GB), 1333MHz *
Processor	(2) Intel® Xeon® X5680 3.33GHz 12MB cache, 6.4GT/s Intel QPI, turbo
Host Bus Adapter	(2) 6Gbps SAS Adaptor

* RAM Configurations;   8GB RDIMMs: 128GB@800MHz and 144GB@800MHz.
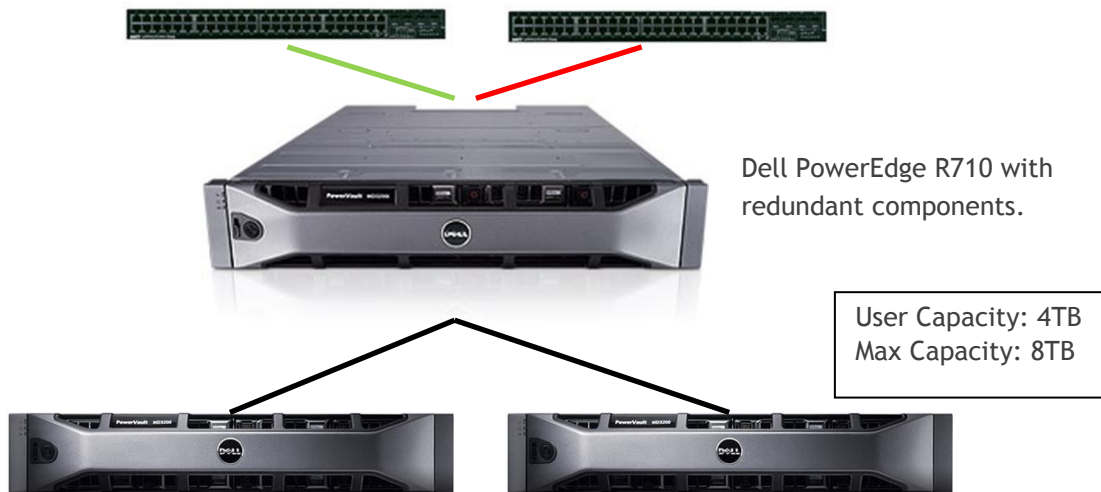16GB RDIMMs; 192GB@1333MHz and 288GB @800MHz.

Storage Overview

Storage Model	(2) Dell PowerVault MD3220
Data Drive Configuration	(40) 146GB 6GBps SAS 15K 2.5" HDD *
Log Drive Configuration	(2) 146GB 6GBps SAS 15K 2.5" HDD *
Hot Spare Drive Configuration	(4) 146GB 6GBps SAS 15K 2.5" HDD *
Recommended Data Capacity	4TB
Maximum Data Capacity	8TB

* Also available in 300GB and 600GB 10K Hard Drives for higher capacity configurations.
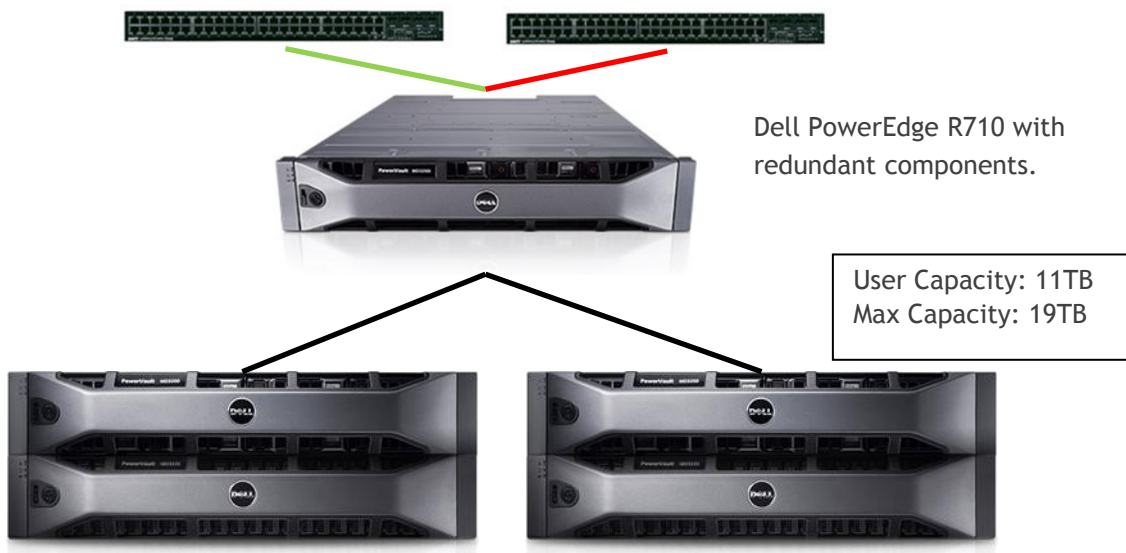
Dell | Microsoft SQL Server Fast Track Architecture

Redundant Dell PowerConnect 55xx Switches for Public and Private LAN access.

Dell PowerEdge R710 with redundant components.

User Capacity: 4TB
Max Capacity: 8TB

Dell PowerVault MD3220 Direct Attached SAS Arrays

Figure 1 Single Node (Base) Configuration

Redundant Dell PowerConnect 55xx Switches for Public and Private LAN access.

Dell PowerEdge R710 with redundant components.

User Capacity: 11TB
Max Capacity: 19TB

Dell PowerVault MD3220 Direct Attached SAS Arrays with expansion enclosures MD1220

Figure 2 Highly Capacity Configuration

Redundant Dell PowerConnect 55xx Switches for Public and Private LAN access.

Active Node   Passive Node

Dell PowerEdge R710 with redundant components configured with Microsoft Cluster Service (MSCS).

User Capacity: 4TB
Max Capacity: 8TB

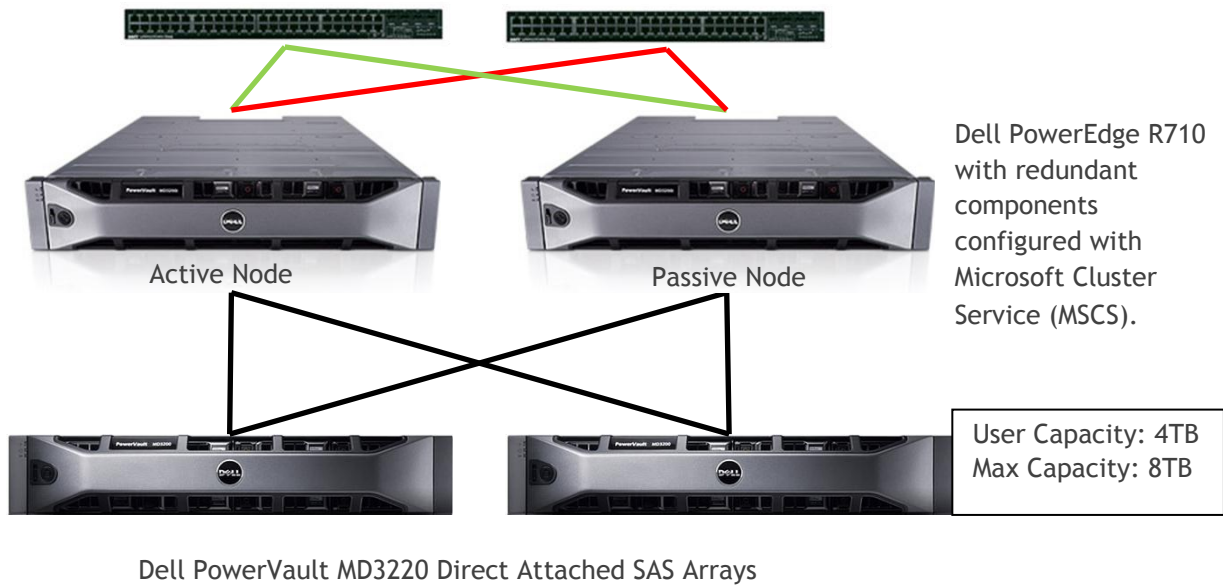Dell PowerVault MD3220 Direct Attached SAS Arrays

Figure 3 Highly Available (HA) Configuration

To facilitate the ordering process, Dell provides the Solution ID which enables rapid ordering of a configuration. Depending on customer requirements, internal components can be modified from the Solution ID, such as Memory, Processor or adding additional PCIe components.

Contact your Dell or Microsoft Sales Representative for more information on Dell | Microsoft Fast Track Data Warehouse Configuration information.

More Information

Dell Services: www.dell.com/services

Dell Business Intelligence and Data Warehousing: www.dell.com/BI

Dell | Microsoft SQL Server Solutions: www.dell.com/sql

Microsoft Fast Track: www.microsoft.com/sqlserver/2008/en/us/fasttrack.aspx