Dell EqualLogic PS6000XVS/PS6010XVS

Intuitive data availability for multi-tiered workloads



Improves performance of multi-tiered, variable IOPS workloads like virtual desktops

Reduces time to boot multiple VMs by up to $76\%^{\dagger}$

¹Based on testing performed by Dell Labs in May 2010 comparing Dell EqualLogic Firmware v. 4.3 to Dell EqualLogic Firmware v. 5.0 with VMware API for Array Integration. Actual performance will vary based on configuration, usage and manufacturing variability.

PS6000XVS with VMware View- Test Result Summary

- ~1,000 task worker desktops on a single PS6000XVS array
- Performance at ~1,000 desktops
 - 8,600 IOPS at peak load
 - ~5% performance headroom
 - latency well below the 20 ms
- Capacity at ~1,000 desktops
 - Gold images and a minimum of 2GB per linked clone delta disk
 - ~15% capacity headroom
- With automatic workload tiering, PS6000XVS is optimally balanced for both capacity and performance in VDI environment

PS6000XVS with VMware View- VDI login storm disk IOPS

90% IOPS handled by SSD drives

-	Disks on Gro		-	• <u>V</u> olumes • Vol	ume Collec	tions 👻										lata capi			
									Group Ne	w-XVS-450GB	IOPS								
IOPS	8,000 6,000 2,000 0 11:32		11:45	12:00 12:19	5 12:30	11/29/2010 12:50	13:00	13:15		:45 14:00	14:15 14:	30 14:45	15:00	15:15	15:30	15:45	16:00	16:15	Re
-	0 Member	9/2010 Pool	Disk	Description	Average IOP5	Read I/O Rate	Write I/O Rate	Status	Average Disk Queue Depth	Model		Revision							
>	XVS-450GB	default	0	SSD 100GB SATA-II	1,734.6	24.0 MB/sec		online	1	SAMSUNG MCCC	E1HG5MXP-0VBD	3 VBC3CD3Q							
	XVS-450GB	default	1	SSD 100GB SATA-II	1,821.7	25.6 MB/sec	10.0 MB/	online	10.	SAMSUNG MCCC	E 1HG 5MXP-0VBD	3 VBC3CD3Q							
	XVS-450GB	default	2	SSD 100GB SATA-II	2,089.3	24.9 MB/sec	9.4 MB/sec	online	7.	SAMSUNG MCCO	E 1HG 5MXP-0VBD	3 VBC3CD3Q							
	XVS-450GB	default	3	SSD 100GB SATA-II	1,725.1	24.5 MB/sec	9.0 MB/sec	online	7.	5 SAMSUNG MCCC	E 1HG 5MXP-0VBD	3 VBC3CD3Q							
	XVS-450GB	default	4	SSD 100GB SATA-II	1,715.8	24.1 MB/sec	8.8 MB/sec	online	7.	A SAMSUNG MCCC	E 1HG 5MXP-0VBD	3 VBC3CD3Q							
	XVS-450GB	default	5	SSD 100GB SATA-II	1,775.3	25.3 MB/sec	9.8 MB/sec	online	9.	SAMSUNG MCCC	E 1HG 5MXP-0VBD	3 VBC3CD3Q							
	XVS-450GB	default	6	SSD 100GB SATA-II	1,684.7	24.1 MB/sec	8.8 MB/sec	online	8.	SAMSUNG MCCC	E1HG5MXP-0VBD	3 VBC3CD3Q							
Γ	XVS-450GB	default	7	SSD 100GB SATA-II	1,781.7	25.2 MB/sec	9.9 MB/sec	online	9.	7 SAMSUNG MCCC	E1HG5MXP-0VBD	3 VBC3CD3Q							
	XVS-450GB	default	8	15K 450GB SAS	166.9	1.2 MB/sec	2.0 MB/sec	online	11.	5 ST3450857SS		EN01							
	XVS-450GB	default	9	15K 450GB SAS	163.6	1.2 MB/sec	2.0 MB/sec	online	10.	5 ST3450857SS		EN01							
		default	10	15K 450GB SAS	167.2	1.2 MB/sec	2.0 MB/sec	online	12.	3 ST3450857SS		EN01							
	XVS-450GB	uerauit					2.0 MB/sec	online	11.	ST3450857SS		EN01							
	XVS-450GB XVS-450GB	default	11	15K 450GB SAS	164.1	1.2 MB/sec	210 Hoyace												
			11 12	60001000 # 7X5100	164.1 164.3		2.0 MB/sec		12.	5 ST3450857SS		EN01							
	XVS-450GB	default	195	R00010069700000		1.2 MB/sec		online		5 ST3450857SS 5 ST3450857SS		EN01 EN01							
	XVS-450GB XVS-450GB	default default	12	15K 450GB SAS	164.3	1.2 MB/sec 1.2 MB/sec	2.0 MB/sec	online online	13,										