

SR6600 Test Report

Date:2006/04/06 V1.1

A. Environmental Configuration

1.The test is that inserting Ultra 320 SCSI Card interface into platform as MSI or other Brand name with 5 pcs of hard drives to connect them with this subsystem to test their performance at the same time.

2.There are two subjects as platform's configuration and SR6600 Subsystem's configuration which be shown info in the table.

Subject PC	
OS	Windows XP Professional version 2002 SP2
CPU	Intel Celeron(R) CPU 2.80GHz
RAM	512*2 MB DDR2 533
Main Board	MSI 945PL Neo(MS-7236)
Host Interface Card	Adaptec PCI Ultra 320 SCSI Card (ASC-39320A-R)
Hardware Device	WDC WD800JD-00LSA0
Subject RAID	
Firmware Version	V1.39 2005-12-06
BOOT ROM Version	V1.39 2005-12-06
MPT Firmware Version	1.3.39.0
Hardware Device	WDC WD800JD-00LSA0*5

B.Performance Testing Results

1.The Iometer software is admitted by storage producers for testing transferring speed.

It can get some values of performance that using Raid subsystem with 5 pcs of Hard Drives to run transferring test under different raid mode and operation system for Raid subsystem through Iometer software .

2.Kindly using this transferring speed operation mode as Read/Write(100%)+Sequential(100%) which will get better performance than other operation mode, and it is usually the Random mode apply to database access as not specific data transferring for user of transferring data , the Sequential mode apply to video / graph as specific and mass data transferring for user of transferring data.

3. Because the setting's environments are not top level.

If you want to get the high values and to enhance the whole performance, please kindly change Hardware devices as high level of CPU and high rotational speed of the same brand name of Hard drives.

4. We make the test report which can get a complete comparison and provide some referable information, and make sure SR6600 is admitted by storage product for high performance device.

■ 5 pcs of Hard Drives on SR6600: One PC Worker

LEVEL: RAID 0			
Test Program : IOMeter 2004.7.30			
Volume Capacity		400.0 GB	
Transfer Request Size		256 K	512K
Read(100%)+ Random(100%)	Total I/Os Per Second	128.27	99.58
	Total MBs Per Second	32.07	49.79
Read(100%)+ Sequential(100%)	Total I/Os Per Second	367.33	192.24
	Total MBs Per Second	91.84	96.12
Write(100%)+ Random(100%)	Total I/Os Per Second	241.40	120.55
	Total MBs Per Second	60.38	60.34
Write(100%)+ Sequential(100%)	Total I/Os Per Second	269.08	142.53
	Total MBs Per Second	67.29	71.26

■ 2 pcs of Hard Drives on SR6600: One PC Worker

LEVEL: RAID 1			
Test Program : IOMeter 2004.7.30			
Volume Capacity		80.0 GB	
Transfer Request Size		256 K	512K
Read(100%)+ Random(100%)	Total I/Os Per Second	108.87	82.65
	Total MBs Per Second	27.22	41.32
Read(100%)+ Sequential(100%)	Total I/Os Per Second	191.71	114.78
	Total MBs Per Second	47.93	57.39
Write(100%)+ Random(100%)	Total I/Os Per Second	104.04	61.99
	Total MBs Per Second	26.01	31.00
Write(100%)+ Sequential(100%)	Total I/Os Per Second	233.22	116.84
	Total MBs Per Second	58.31	58.41

■ 5 pcs of Hard Drives on SR6600: One PC Worker

LEVEL: RAID 0+1			
Test Program : IOMeter 2004.7.30			
Volume Capacity		200.0 GB	
Transfer Request Size		256 K	512K
Read(100%)+ Random(100%)	Total I/Os Per Second	111.63	94.72
	Total MBs Per Second	27.91	47.36
Read(100%)+ Sequential(100%)	Total I/Os Per Second	336.65	187.67
	Total MBs Per Second	84.13	93.87
Write(100%)+ Random(100%)	Total I/Os Per Second	173.15	89.16
	Total MBs Per Second	43.58	44.34
Write(100%)+ Sequential(100%)	Total I/Os Per Second	276.08	142.38
	Total MBs Per Second	69.02	71.19

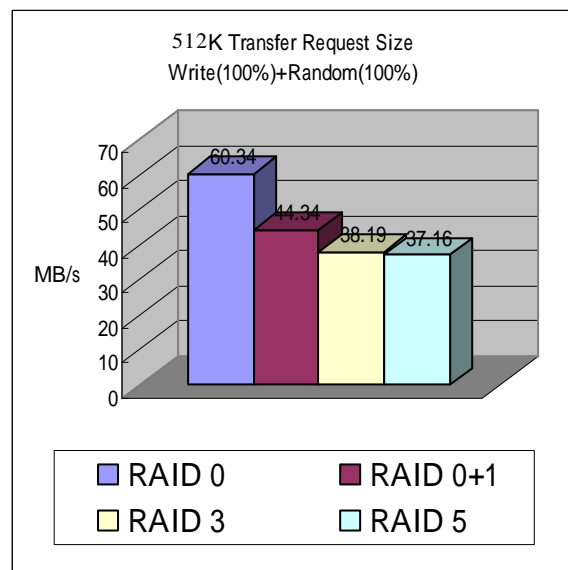
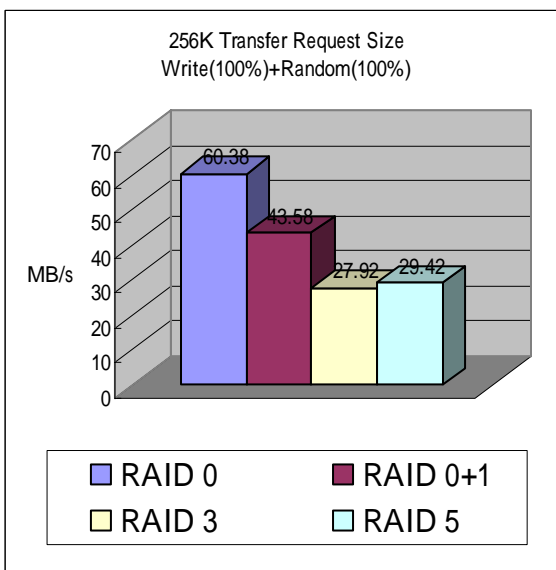
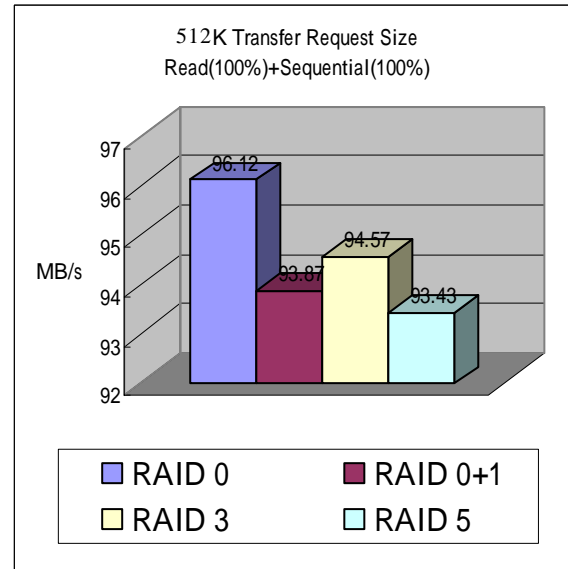
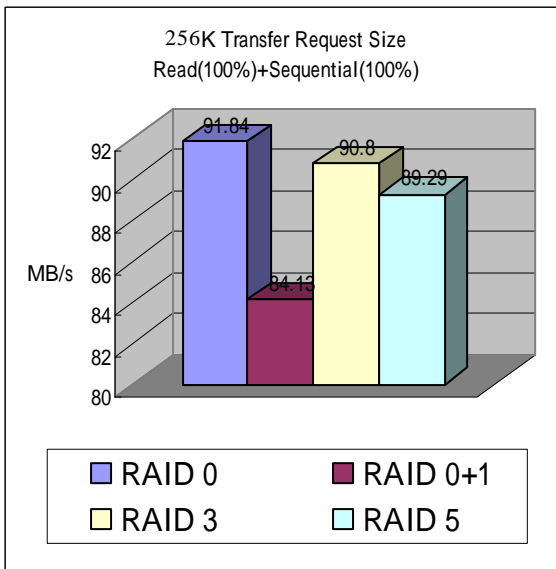
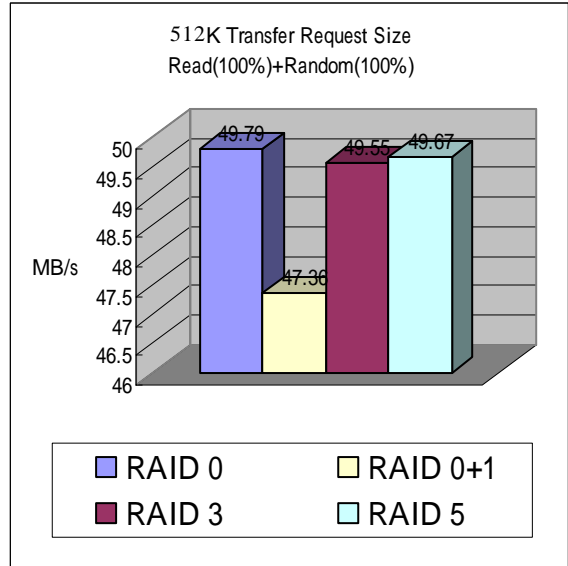
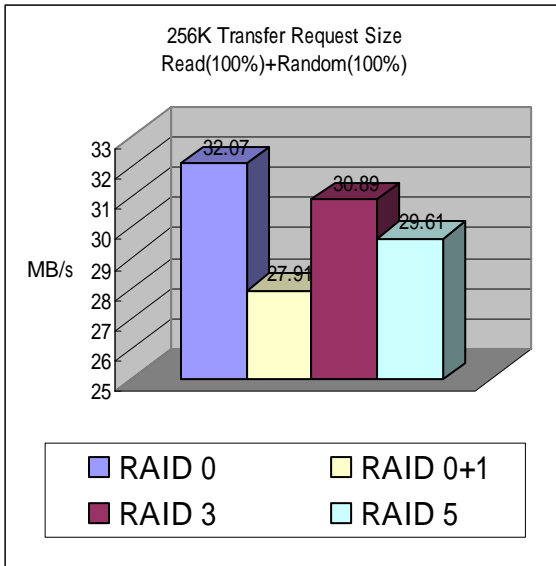
■ 5 pcs of Hard Drives on SR6600 : One PC Worker

LEVEL: Raid 3			
Test Program : IOMeter 2004.7.30			
Volume Capacity		320GB	
Transfer Request Size		256 K	512K
Read(100%)+ Random(100%)	Total I/Os Per Second	123.54	99.10
	Total MBs Per Second	30.89	49.55
Read(100%)+ Sequential(100%)	Total I/Os Per Second	363.19	186.96
	Total MBs Per Second	90.80	94.57
Write(100%)+ Random(100%)	Total I/Os Per Second	111.69	76.79
	Total MBs Per Second	27.92	38.19
Write(100%)+ Sequential(100%)	Total I/Os Per Second	266.67	138.72
	Total MBs Per Second	67.26	69.36

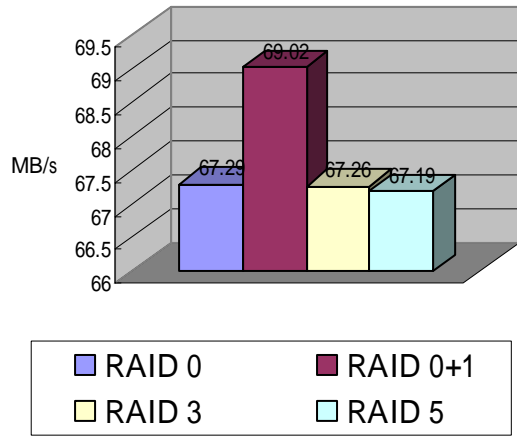
■ 5 pcs of Hard Drives on SR6600 :One PC Worker

LEVEL: Raid 5			
Test Program : IOMeter 2004.7.30			
Volume Capacity		320 GB	
Transfer Request Size		256 K	512K
Read(100%)+ Random(100%)	Total I/Os Per Second	118.44	199.33
	Total MBs Per Second	29.61	49.67
Read(100%)+ Sequential(100%)	Total I/Os Per Second	357.27	186.78
	Total MBs Per Second	89.29	93.43
Write(100%)+ Random(100%)	Total I/Os Per Second	117.69	74.33
	Total MBs Per Second	29.42	37.16
Write(100%)+ Sequential(100%)	Total I/Os Per Second	268.75	139.85
	Total MBs Per Second	67.19	69.91

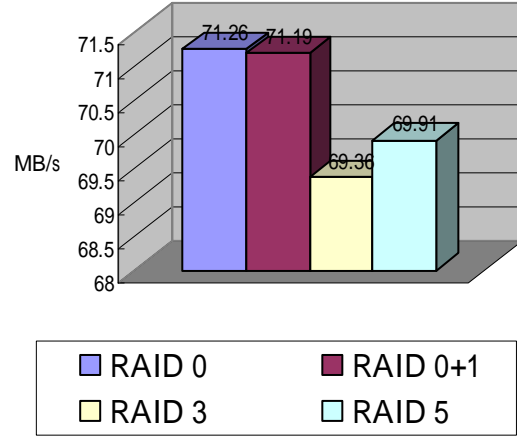
■ Different Raid Level compare with SR6600 for graph of transfer request performance



256K Transfer Request Size
Write(100%)+Sequential(100%)



512K Transfer Request Size
Write(100%)+Sequential(100%)



C. Device Inside Temperature Test (Full installation condition)

Room temperature(F)	21.2C
Start 1 minutes inside operating temperature(F)	21.8C
Pass 1 hour inside operating temperature(F)	33.1.C
Pass 1 hour inside disks surface temperature(F)	33.8C.

D.Operation System Compatibility Test

1.Format :We assign this RAID disk to use various formats to do partition as NTFS, FAT and EXT to verify this function for SR6600 under Windows XP/Server 2003/Linux that will get test results be shown in this table.

2.File copy:

- The test item that verify the function of transferring data as copy total capacities of 10GB/s data from source platform to SR6600 subsystem including a compressing files or a uncompressing file. and deletes these files in the target device.

3.OS Compatibilities:

- Try to use SR6600 subsystem to set up it and test it's compatibility under various Operation system as Windows Server 2003 /Linux and to transfer data into the Physical device (logical disk) between above operation system and SR6600 subsystem.
- Refer physical devices, interface and confirm the above devices will be already and work fine from device manager of Windows XP.

4. Hareware Storage device Compatibility

We provide this SR6600 subsystem with various hard Drives to test their compatibilities.
(The compatible test results of hard Drives are listed in the test report.)

5. Peripheral interface Device Compatibility:

We inserted interface card into the previous mentioning platform to connect them with this SR6600 subsystem to test their compatibilities.
(The compatible test results of interface card are listed in the test report.)

6. Mother board Compatibility:

We used various mother boards to connect with this SR6600 subsystem to test their compatibilities.
(The compatible test results of mother board are listed in the test report.)

Test Type	
Platform:PC	
1.Format	
NTFS	pass
FAT 32	pass
EXT 2/3	pass
2.File copy(10GB)	
pass	
OS Compatibility	
Windows XP Professional version SP2	pass
Windows server 2003 Enterprise Edition	pass
Linux 2.6.13-15.8-default	pass
Hardware Storage Device Compatibility	
1.ST3160812AS	pass
2.ST3808110AS	pass
3.ST3200827AS	pass
4.ST3400633AS	pass
5.WD800JD-00LSA0	pass
6.ST3500641AS	pass
7.HDS724040KLSA80	pass
8.HDS725050KLA360	pass
9.Seagate 7200.10 750GB	pass
Peripheral Storage Device Compatibility	
Adaptec PCI Ultra 320 SCSI Card (ASC-39320A-R)	pass
Mother board Compatibility	
1. P5S800-VM	pass
2. ASUS P5GL-MX	pass
3. GAK8NE	pass
4. P4C800 Deluxe	pass
5. MSI 945PL Neo(MS-7236)	pass