

Hitachi Adaptable Modular Storage 2100 Dynamically Provisioned 13,600 User Exchange 2007 Clustered Continuous Replication Storage Solution

Tested with: ESRP – Storage Version 2.1

Test Date: Oct - Nov 2009

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Table of Contents

- Overview**4
- Disclaimer**4
- Features**4
- Solution Description**5
- Targeted Customer Profile**9
- Tested Deployment**10
- Streaming Backup**11
- Replication**12
- Best Practices**14
 - Core Storage14
- Backup Strategy**14
- Test Result Summary**14
 - Reliability15
 - Primary Storage Performance Results.....15
 - Streaming Backup Performance17
- Conclusion**.....18
- Appendix A – Test Reports**19
 - Performance Test Result: SUN165.....19
 - Performance Test Database Checksums Result: SUN165.....30
 - Stress Test Database Performance Result: SUN16535
 - Stress Test Database Checksums Result: SUN16546
 - Streaming Backup Test Result: SUN16552
 - Soft Recovery Test Result: SUN165.....58
 - Soft Recovery Test Performance Result: SUN16569

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Overview

This document provides information on a Hitachi Adaptable Modular Storage 2100 Clustered Continuous Replication (CCR) storage solution using Hitachi Dynamic Provisioning for Microsoft Exchange Server 2007, based on the Microsoft® Exchange Solution Reviewed Program (ESRP) – Storage program. For more information about the contents of this document or Hitachi Data Systems' best practice recommendations for Microsoft Exchange Server 2007 storage design, see <http://www.hds.com/solutions/microsoft/exchange.html>.

The ESRP – Storage program was developed by Microsoft Corporation to provide a common storage testing framework for vendors to provide information on its storage solutions for Microsoft Exchange Server software. For more information about the Microsoft ESRP – Storage program, see <http://www.microsoft.com/technet/prodtechnol/exchange/2007/esrp.mspx>.

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Features

The purpose of this testing was to measure the ESRP 2.1 results on a Microsoft Exchange 2007 environment with 13,600 users and four servers. This testing used the Hitachi Adaptable Modular Storage 2100 storage system using Hitachi Dynamic Provisioning software in a two pool RAID-1+0 configuration (one for databases and one for logs) in a CCR configuration.. These results help answer questions about the kind of performance capabilities to expect with a large-scale Exchange deployment on the 2100.

The test configuration was capable of supporting 13,600 users with a 0.384 IOPS per user profile and user mailbox size of 1GB. A 2100 with 120 450GB 15K RPM SAS disks, 8GB of cache and four 4Gbit/s Fibre Channel host paths was used for these tests. Testing used four Sun Fire 4270 servers with 32GB of RAM, two quad-core Intel E5540 2.53GHz CPUs, eight Emulex 4Gbit/s Fibre Channel adapters, and Windows Server 2008 Enterprise with Service Pack 1.

The Hitachi Adaptable Modular Storage 2100 is a medium-sized, high-performance, highly reliable midrange storage system that can scale to 120 disks while maintaining 99.999% availability. It is highly suitable for a variety of applications and host platforms and is modular in scale. With the option of in-system and cross-system replication functionality, the 2100 is fully capable of being used as the core underlying storage platform for high-performance Exchange Server 2007 architectures.

Solution Description

Deploying Microsoft Exchange Server 2007 requires careful consideration of all aspects of the solution architecture. Host servers need to be configured so that they are robust enough to handle the required Exchange load. The storage solution must be designed to provide the necessary performance while also being reliable and easy to administer. Of course, an effective backup and recovery plan should be incorporated into the solution as well. The aim of this solution report is to provide a tested configuration that utilizes the 2100 to meet the needs of a large Exchange Server deployment.

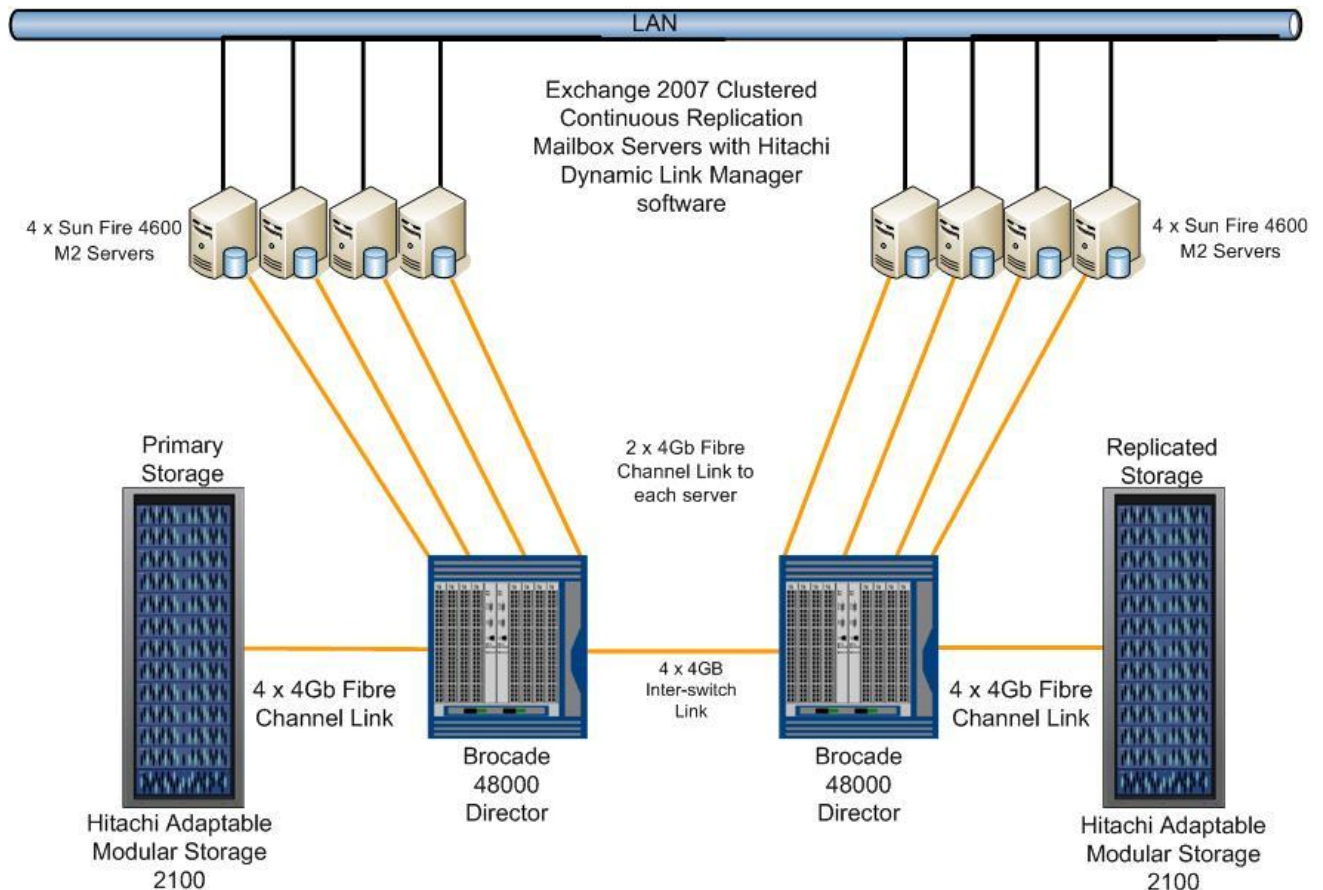
This solution uses Hitachi Dynamic Provisioning software, which is enabled on the 2100 via a license key. In the most basic sense, Hitachi Dynamic Provisioning software is similar to the use of a host-based logical volume manager (LVM), but with several additional features available within the 2100 and without the need to install software on the host or incur host processing overhead. Hitachi Dynamic Provisioning software is a superior solution. Hitachi Dynamic Provisioning software provides for one or more pools of wide striping across many RAID groups within a 2100. One or more Dynamic Provisioning virtual volumes (DP-VOLs) of a user-specified logical size (with no initial physical space allocated) are created against each pool.

Primarily, Hitachi Dynamic Provisioning software is deployed to avoid the routine issue of hot spots that occur on logical units (LUs) from individual RAID groups when the host workload exceeds the IOPS or throughput capacity of that RAID group. By using many RAID groups as members of a striped Dynamic Provisioning pool underneath the virtual or logical volumes seen by the hosts, a host workload is distributed across many RAID groups, which provides a smoothing effect that dramatically reduces hot spots and results in fewer mailbox moves for the Exchange administrator.

Hitachi Dynamic Provisioning software also carries the side benefit of thin provisioning, where physical space is mapped as needed from the shared pool to the DP-VOL in 32MB segments, up to the logical size specified for each DP-VOL. A pool can also be dynamically expanded by adding more RAID groups without disruption or requiring downtime. Upon expansion, a pool can easily be rebalanced so that the data and workload is wide striped evenly across the current and newly added RAID groups that make up the pool.

For the targeted 13,600 user Exchange environment, a 2100 configured with 120 disks (the maximum) and four host servers were used for the primary storage. An identical set of servers using 120 disks on a separate 2100 was used for the replicated storage. Figure 1 illustrates the two systems that make up the multi-site CCR configuration.

Figure 1. Clustered Continuous Replication Configuration

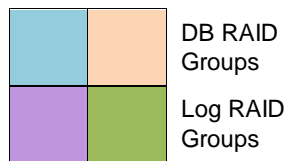


This solution enables organizations to consolidate Exchange Server 2007 CCR deployments on two 2100 storage systems. Using identical hardware and software configurations ensures that primary and replicated copies do not share storage paths, disk spindles or storage controllers. This helps ensure that performance and service levels related to storage are maintained regardless of which CCR server is hosting the active storage groups.

Table 1 illustrates how the 2100's disks were organized into RAID groups for use by either databases or logs in the primary storage. Each set of colored disks represents a RAID-1+0 (4D+4D) group. Except for RKA-0 (with 15 internal SAS disks), each RKA is an external disk enclosure with 15 SAS disks. An identical configuration is deployed on the replicated storage for this solution.

Table 1. Adaptable Modular Storage 2100 RAID Groups by RKA Tray Layout

<i>Drive Slot</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>
RKA 7	13	13	13	13	13	13	13	14	14	14	14	14	14	14	14
RKA 6	11	11	11	11	11	11	12	12	12	12	12	12	12	12	13
RKA 5	9	9	9	9	9	10	10	10	10	10	10	10	10	11	11
RKA 4	7	7	7	7	8	8	8	8	8	8	8	8	9	9	9
RKA 3	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7
RKA 2	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5
RKA 1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3
RKA 0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1



Two Dynamic Provisioning pools were created, one for the databases and other for the logs. The Database Pool was created from 13 RAID-10 RAID groups and the Log Pool was created from two RAID-1+0 RAID groups. From the database pool, 200 DP-VOLs (each specified to have an 85GB size limit) were created for 200 Storage Groups (50 per server). From the log pool, 200 DP-VOLs (each specified to have a size limit of 10GB) were created for 200 logs (50 per server).

Table 2 outlines the port layout for the primary storage and servers. An identical configuration is deployed on the replicated storage and servers for this solution.

Table 2. Adaptable Modular Storage 2100 Port to Server Layout

<i>Server</i>	<i>Primary Path</i>	<i>Secondary Path</i>
SUN165	0A	1A
SUN166	0B	1B
SUN167	1A	0A
SUN168	1B	0B

Table 3 outlines the port layout with the database DP-VOL assignments for the primary storage and servers. An identical configuration is deployed on the replicated storage and servers for this solution.

Table 3. Adaptable Modular Storage 2100 Port to Database DP-VOL Layout

<i>Port</i>	<i>Database DP-VOL</i>	
0A	0-49	100-149
0B	50-99	150-199
1A	100-149	0-49
1B	150-199	50-99

Table 4 outlines the port layout with the log DP-VOL assignments for the primary storage and servers. An identical configuration is deployed on the replicated storage and servers for this solution.

Table 4. Adaptable Modular Storage 2100 Port to Log DP-VOL Layout

<i>Port</i>	<i>Log DP-VOL</i>	
0A	200-249	300-349
0B	250-299	350-399
1A	300-349	200-249
1B	350-399	250-299

Table 5 provides the detailed specifications for the storage configuration, which uses RAID-1+0 (4+4) groups and 450GB 15K disks. Dynamic Provisioning pool 0 is dedicated for the databases and Dynamic Provisioning pool 1 is dedicated for the logs. An identical configuration is deployed on the replicated storage for this solution.

Table 5. Adaptable Modular Storage 2100 Configuration Details

<i>Host</i>	<i>Pool</i>	<i>Port</i>	<i>DP-VOL</i>	<i>Size (GB)</i>	<i>Description</i>
SUN165	0	0A/1A	0-49	85	Storage groups 1-50
SUN166	0	0B/1B	50-99	85	Storage groups 51-100
SUN167	0	1A/0A	100-149	85	Storage groups 101-150
SUN168	0	1B/0B	150-199	85	Storage groups 151-200
SUN165	1	0A/1A	200-249	10	Logs 1-50
SUN166	1	0B/1B	240-299	10	Logs 51-100
SUN167	1	1A/0A	300-349	10	Logs 101-150
SUN168	1	1B/0B	350-399	10	Logs 151-200

The ESRP – Storage program focuses on storage solution testing to address performance and reliability issues with storage design. However, storage is not the only factor to take into consideration when designing a scale-up Exchange solution. These factors also affect server scalability:

- Server processor utilization
- Server physical and virtual memory limitations
- Resource requirements for other applications
- Directory and network service latencies
- Network infrastructure limitations
- Replication and recovery requirements
- Client usage profiles

These factors are all beyond the scope of the ESRP – Storage program. Therefore, the number of mailboxes hosted per server as part of the tested configuration might not necessarily be viable for some customer deployments.

For more information about identifying and addressing performance bottlenecks in an Exchange system, see Microsoft's [Troubleshooting Microsoft Exchange Server Performance](#).

Targeted Customer Profile

This solution is designed for medium to large organizations that plan to consolidate their Exchange Server 2007 storage on high-performance, high-reliability storage systems. This configuration can support 13,600 Exchange users with the following specifications:

- 4 Exchange Servers
- 3,400 users on a single Exchange Server
- 0.384 IOPS per user
- 1GB mailbox size
- 200 storage groups
- 1 database per storage group (200 total)
- Clustered continuous replication (CCR)

Tested Deployment

The following tables summarize the testing environment.

Table 6. Simulated Exchange Configuration

<i>Number of Exchange mailboxes simulated</i>	13,600
<i>Number of hosts</i>	4
<i>Number of mailboxes per host</i>	3,400
<i>Number of storage groups per host</i>	50
<i>Number of mailbox stores per storage group</i>	1
<i>Number of mailboxes per mailbox store</i>	136
<i>Number of mailbox store LUs per storage group</i>	1
<i>Simulated profile: I/Os per second per mailbox (IOPS, include 20% headroom)</i>	0.384
<i>Database LU size</i>	85GB
<i>Log LU size</i>	10GB
<i>Total database size for performance testing</i>	13,600GB
<i>% storage capacity used by Exchange database**</i>	55.4%

Table 7. Primary Storage Hardware

<i>Storage type</i>	SAN
<i>Storage connectivity</i>	Fibre Channel
<i>Storage model and OS/firmware revision</i>	1 Hitachi Adaptable Modular Storage 2100 Firmware :0872/B-S WHQL listing: Hitachi Adaptable Modular Storage 2100
<i>Storage cache</i>	8GB
<i>Number of storage controllers</i>	2
<i>Number of storage ports</i>	4
<i>Maximum bandwidth of storage connectivity to host</i>	16 Gb/s (4x4Gbit/s ports)
<i>Switch type/model/firmware revision</i>	Brocade 5320, Fabric OS v6.1.1c
<i>HBA model and firmware</i>	Emulex LPe11002,FW: 2.50A6
<i>Number of HBAs/host</i>	2 dual-ported HBA per host, 1 4Gbit/s port used per HBA
<i>Host server type</i>	Sun Fire 4270 2 2.54 GHz quad-core Intel Xeon CPUs, 32 GB memory
<i>Total number of disks tested in solution</i>	120
<i>Maximum number of spindles can be hosted in the storage</i>	120

Table 8. Primary Storage Software

HBA driver	STOR Miniport 9.1.7.16
HBA QueueTarget setting	0
HBA QueueDepth setting	32
Multipathing	Hitachi Dynamic Link Manager v6.1.0
Host OS	Microsoft Windows Server 2008 Enterprise x64 Edition Service Pack 1
ESE.dll file version	08.01.0240.005
Replication solution name/version	N/A

Table 9. Primary Storage Disk Configuration (Mailbox Store Disks)

Disk type, speed and firmware revision	SAS Disk 450GB 15K D06A
Raw capacity per disk (GB)	450GB
Number of physical disks in test	104 (Dynamic Provisioning pool)
Total raw storage capacity (GB)	46,800GB
Disk slice size (GB)	N/A
Number of slices per LU or number of disks per LU	N/A
RAID level	RAID-1+0 (4+4) at storage level
Total formatted capacity	21,268GB (Dynamic Provisioning database pool)
Storage capacity utilization	45.4%
Database capacity utilization	69.3%

Table 10. Primary Storage Disk Configuration (Transaction Log Disks)

Disk type, speed and firmware revision	SAS Disk 450 GB 15K D06A
Raw capacity per disk (GB)	450GB
Number of spindles in test	16 (Dynamic Provisioning pool)
Total raw storage capacity (GB)	7200GB
Disk slice size (GB)	N/A
Number of slices per LU or number of disks per LU	N/A
RAID level	RAID-1+0 (4+4) at storage level
Total formatted capacity	3,272GB (Dynamic Provisioning log pool)

Streaming Backup

N/A

Replication

The following tables summarize the replication environment.

Table 11. Replicated Configuration

Replication mechanism	Exchange Server 2007 CCR Service Pack 1
Number of links	2
Simulated link distance	N/A
Link type	IP
Link bandwidth	GigE (1 Gbps)

Table 12. ReplicatedStorage Hardware

Storage type	SAN
Storage connectivity	Fibre Channel
Storage model and OS/firmware revision	1 Hitachi Adaptable Modular Storage 2100 Firmware :0872/B-S WHQL listing: Hitachi Adaptable Modular Storage 2100
Storage cache	8GB
Number of storage controllers	2
Number of storage ports	4
Maximum bandwidth of storage connectivity to host	16 Gb/s (4x4Gbit/s ports)
Switch type/model/firmware revision	Brocade 5320, Fabric OS v6.1.1c
HBA model and firmware	Emulex LPe11002,FW: 2.50A6
Number of HBAs/host	2 dual-ported HBA per host, 1 4Gbit/s port used per HBA
Host server type	Sun Fire 4270 2 2.54 GHz quad-core Intel Xeon CPUs, 32 GB memory
Total number of disks tested in solution	120
Maximum number of spindles can be hosted in the storage	120

Table 13. Replicated Storage Software

HBA driver	STOR Miniport 9.1.7.16
HBA QueueTarget setting	0
HBA QueueDepth setting	32
Multipathing	Hitachi Dynamic Link Manager v6.1.0
Host OS	Microsoft Windows Server 2008 Enterprise x64 Edition Service Pack 1
ESE.dll file version	08.01.0240.005
Replication solution name/version	Exchange Server 2007 CCR Service Pack 1

Table 14. Replicated Storage Disk Configuration (Mailbox Store Disks)

Disk type, speed and firmware revision	SAS Disk 450GB 15K D06A
Raw capacity per disk (GB)	450GB
Number of physical disks in test	104 (Dynamic Provisioning pool)
Total raw storage capacity (GB)	46,800GB
Disk slice size (GB)	N/A
Number of slices per LU or number of disks per LU	N/A
RAID level	RAID-1+0 (4+4) at storage level
Total formatted capacity	21,268GB (Dynamic Provisioning database pool)
Storage capacity utilization	45.4%
Database capacity utilization	69.3%

Table 15. Replicated Storage Disk Configuration (Transaction Log Disks)

Disk type, speed and firmware revision	SAS Disk 450 GB 15K D06A
Raw capacity per disk (GB)	450GB
Number of spindles in test	16 (Dynamic Provisioning pool)
Total raw storage capacity (GB)	7200GB
Disk slice size (GB)	N/A
Number of slices per LU or number of disks per LU	N/A
RAID level	RAID-1+0 (4+4) at storage level
Total formatted capacity	3,272GB (Dynamic Provisioning log pool)

Best Practices

Microsoft Exchange Server 2007 is a very disk-intensive application. It presents two distinct workload patterns to the storage, with 8KB random read/write operations to the databases, and sequential write operations of varying size (between 512 bytes up to the log buffer size) to the transaction logs. For this reason, designing an optimal storage configuration can prove challenging in practice. Based on the testing run using the ESRP framework, Hitachi Data Systems recommends these best practices to improve the performance of the Adaptable Modular Storage 2100 running Exchange.

For more information about Exchange 2007 best practices for storage design, see the Microsoft TechNet article [Planning Storage Configurations](#).

Core Storage

1. Use Microsoft's diskpar or diskpart to create track-aligned disk partitions. For the 2100, using an offset of 64KB is optimal. This is optional in the case of using Windows Server 2008.
2. Keep the Exchange workload isolated from other applications. Mixing another I/O intensive application whose workload differs from Exchange can cause the performance for both applications to degrade.
3. Due to the difference in I/O patterns and to enhance availability and recoverability, isolate the Exchange database DP-VOLs from the log DP-VOLs by creating one dedicated Dynamic Provisioning pool for the databases and a separate Pool dedicated for the logs.
4. Hitachi Data Systems recommends using RAID-5 or RAID-1+0 RAID groups for the database pools and RAID-1 or RAID-1+0 RAID Groups for the log pool. Use of RAID-1+0 allows for more writes at a lower response time under heavier loads. RAID-1+0 also has a shorter RAID group rebuild time on failure of a disk. Hitachi Data Systems does not recommend LU concatenation.
5. Size the storage solution for Exchange based primarily on IOPS performance criteria. The number of disks, RAID level and percent utilization of each disk directly affect the level of achievable performance. Factor in capacity requirements only after performance is addressed.
6. Disk size is unrelated to performance with regards to IOPS or throughput rates. Disk size is related to the usable capacity of all of the LUs from a RAID group, which is a choice users make.
7. The number of disks, coupled with the RAID level, determines the physical IOPS capacity of the RAID group and all of its LUs. If there are too few RAID Groups (disks), the response times grow to large values very quickly.

Backup Strategy

N/A

Test Result Summary

This section provides a high-level summary of the test data from ESRP and the link to the detailed HTML reports that are generated by ESRP testing framework.

Reliability

A number of tests in the framework check reliability spanning a 24-hour window. The goal is to verify the storage can handle high I/O load for a long period of time. Following these stress tests, both log and database files are analyzed for integrity to ensure that no database or log corruption occurs.

- No errors were reported in the event log file for the storage reliability testing
- No errors were reported for the database and log checksum process
- Backup to disk test is N/A
- Database checksum on the remote storage database is N/A

Primary Storage Performance Results

The primary storage performance testing exercises the storage with maximum sustainable Exchange type of I/O for two hours. The test shows how long it takes for the storage to respond to an I/O under load. The following data is the sum of all of the logical disk I/Os and average of all the logical disks I/O latency in the two-hour test duration.

Individual Server Metrics

Individual server metrics show the sum of I/Os across storage groups and the average latency across all storage groups.

Table 16. Individual Server Metrics for Exchange Server (SUN165)

Database I/O	
<i>Database Disk Transfers/sec</i>	1849 IOPS
<i>Database Disk Reads/sec</i>	989 IOPS
<i>Database Disk Writes/sec</i>	860 IOPS
<i>Average Database Disk Read Latency (ms)</i>	10
<i>Average Database Disk Write Latency (ms)</i>	3
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	709 IOPS
<i>Average Log Disk Write Latency (ms)</i>	1

Table 17. Individual Server Metrics for Exchange Server (SUN166)

Database I/O	
<i>Database Disk Transfers/sec</i>	1832 IOPS
<i>Database Disk Reads/sec</i>	981 IOPS
<i>Database Disk Writes/sec</i>	851 IOPS
<i>Average Database Disk Read Latency (ms)</i>	10
<i>Average Database Disk Write Latency (ms)</i>	3
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	702 IOPS
<i>Average Log Disk Write Latency (ms)</i>	1

Table 18. Individual Server Metrics for Exchange Server (SUN167)

Database I/O	
<i>Database Disk Transfers/sec</i>	1834 IOPS
<i>Database Disk Reads/sec</i>	982 IOPS
<i>Database Disk Writes/sec</i>	852 IOPS
<i>Average Database Disk Read Latency (ms)</i>	10
<i>Average Database Disk Write Latency (ms)</i>	3
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	701 IOPS
<i>Average Log Disk Write Latency (ms)</i>	1

Table 19. Individual Server Metrics for Exchange Server (SUN168)

Database I/O	
Database Disk Transfers/sec	1854 IOPS
Database Disk Reads/sec	989 IOPS
Database Disk Writes/sec	865 IOPS
Average Database Disk Read Latency (ms)	10
Average Database Disk Write Latency (ms)	3
Transaction Log I/O	
Log Disk Writes/sec	714 IOPS
Average Log Disk Write Latency (ms)	1

Aggregate Performance Across All Servers Metrics

The aggregate performance across all server metrics shows the sum of I/Os across all servers in the solution and the average latency across all servers in the solution.

Table 20. Aggregate Performance for Exchange Server 2007

Database I/O	
<i>Database Disk Transfers/sec</i>	7,369 IOPS
<i>Database Disk Reads/sec</i>	3,491 IOPS
<i>Database Disk Writes/sec</i>	3,428 IOPS
<i>Average Database Disk Read Latency (ms)</i>	10
<i>Average Database Disk Write Latency (ms)</i>	3
Transaction Log I/O	
<i>Average Log Disk Writes/sec</i>	2,826 IOPS
<i>Average Log Disk Write Latency (ms)</i>	1

Streaming Backup Performance

For the ESRP Version 2.1 release, only the streaming backup type is supported for testing in the framework. This section has two tests: The first measures the read I/O performance metrics by running checksums on all of the database and log files and the second measures the end-to-end performance when the databases are backed up to disks.

Database Read-only Performance

This test measures the maximum rate at which databases can be recovered. The following tables show the average rate for a single database file.

Table 21. Database Read-only Performance for Exchange Server (SUN165)

<i>MB read/sec per storage group</i>	4.3
<i>MB read/sec total</i>	216.9

Table 22. Database Read-only Performance for Exchange Server (SUN166)

<i>MB read/sec per storage group</i>	4.3
<i>MB read/sec total</i>	213.9

Table 23. Database Read-only Performance for Exchange Server (SUN167)

<i>MB read/sec per storage group</i>	4.2
<i>MB read/sec total</i>	211.5

Table 24. Database Read-only Performance for Exchange Server (SUN168)

<i>MB read/sec per storage group</i>	4.3
<i>MB read/sec total</i>	214.4

Log Read-only Performance

This test measures the maximum rate at which the log files can be played against the databases. The following tables show the average rate for 500 log files played in a single storage group. Each log file is 1MB in size.

Table 25. Log Read-only Performance for Exchange Server (SUN165)

<i>Average time to play one log file (sec)</i>	4.78
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Table 26. Log Read-only Performance for Exchange Server (SUN166)

<i>Average time to play one log file (sec)</i>	4.69
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Table 27. Log Read-only Performance for Exchange Server (SUN167)

<i>Average time to play one log file (sec)</i>	4.832
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Table 28. Log Read-only Performance for Exchange Server (SUN168)

<i>Average time to play one log file (sec)</i>	4.784
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Conclusion

This document details a tested configuration capable of supporting 13,600 users in a CCR configuration with a 0.384 IOPS per user profile and user mailbox size of 1GB. An Adaptable Modular Storage 2100, with 8GB of cache and four 4Gbit/s Fibre Channel host paths, using Hitachi Dynamic Provisioning software (two pools) and 120 450GB 15K RPM SAS disks in a RAID-10 configuration was used for these tests. Testing confirmed that the 2100 is capable of delivering the IOPS and capacity requirements needed to support 13,600 Exchange mailboxes configured with the specified user profile, while maintaining additional headroom to support peak throughput.

The solution outlined in this document does not include data protection components such as local or remote replication. Adding these technologies can affect performance and capacity requirements and each needs to be factored into the storage design accordingly.

For additional information to assist in planning Exchange Server 2007 storage architectures for the Hitachi Adaptable Modular Storage 2000 family, see <http://www.hds.com/assets/pdf/hitachi-ams-2000-family.pdf>.

This document is developed by Hitachi Data Systems and reviewed by Microsoft Exchange Product team. The test results and data presented in this document are based on the tests introduced in the ESRP test framework. Do not quote the data directly for pre-deployment verification. It is still necessary to validate the storage design for a specific customer environment.

The ESRP program is not designed to be a benchmarking program; tests do not generate the maximum throughput for a given solution. Rather, it is focused on producing recommendations from vendors for Exchange application. Thus, do not use the data presented in this document for direct comparisons among the solutions.

Appendix A – Test Reports

This appendix contains Jetstress test results for one of the servers used in testing this storage solution. These test results are representative of the results obtained for all of the servers tested.

Performance Test Result: SUN165

Test Summary

Overall Test Result	Pass
Machine Name	SUN165
Test Description	2 hour
Test Start Time	10/28/2009 1:28:34 AM
Test End Time	10/28/2009 7:50:10 AM
Jetstress Version	08.02.0060.000
Ese Version	08.01.0240.005
Operating System	Windows Server (R) 2008 Enterprise Service Pack 1 (6.0.6001.65536)
Performance Log	C:\ESRP_HDP_1GB_RAID10\Performance\Performance_2009_10_28_1_30_19.blg C:\ESRP_HDP_1GB_RAID10\Performance\DBChecksum_2009_10_28_7_50_10.blg

Database Sizing and Throughput

Achieved I/O per Second	1848.893
Target I/O per Second	1305.6
Initial database size	3578760298496
Final database size	3601659101184
Database files (count)	50

Jetstress System Parameters

Thread count	2 (per storage group)
Log buffers	9000
Minimum database cache	1600.0 MB
Maximum database cache	12800.0 MB
Insert operations	40%
Delete operations	30%
Replace operations	5%
Read operations	25%
Lazy commits	55%

Disk Subsystem Performance

Logical Disk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
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Database (C:\asgluns\sg1)	0.011	0.003	20.271	17.632	(n/a)
Database (C:\asgluns\sg2)	0.010	0.003	19.732	16.899	(n/a)
Database (C:\asgluns\sg3)	0.010	0.003	20.073	17.478	(n/a)
Database (C:\asgluns\sg4)	0.010	0.003	19.887	17.666	(n/a)
Database (C:\asgluns\sg5)	0.010	0.002	19.632	17.275	(n/a)
Database (C:\asgluns\sg6)	0.010	0.003	19.598	16.847	(n/a)
Database (C:\asgluns\sg7)	0.010	0.002	19.906	17.013	(n/a)
Database (C:\asgluns\sg8)	0.010	0.003	19.833	17.023	(n/a)
Database (C:\asgluns\sg9)	0.010	0.003	19.969	17.500	(n/a)
Database (C:\asgluns\sg10)	0.010	0.003	19.892	17.303	(n/a)
Database (C:\asgluns\sg11)	0.010	0.003	19.444	17.035	(n/a)
Database (C:\asgluns\sg12)	0.010	0.003	19.733	17.327	(n/a)
Database (C:\asgluns\sg13)	0.010	0.002	19.526	16.518	(n/a)
Database (C:\asgluns\sg14)	0.010	0.003	19.774	17.046	(n/a)
Database (C:\asgluns\sg15)	0.010	0.002	19.837	17.209	(n/a)
Database (C:\asgluns\sg16)	0.010	0.003	20.388	17.845	(n/a)
Database (C:\asgluns\sg17)	0.010	0.002	19.667	17.452	(n/a)
Database (C:\asgluns\sg18)	0.010	0.003	20.290	17.605	(n/a)
Database (C:\asgluns\sg19)	0.010	0.002	19.440	16.809	(n/a)
Database (C:\asgluns\sg20)	0.010	0.003	19.793	17.349	(n/a)
Database (C:\asgluns\sg21)	0.010	0.002	20.012	17.549	(n/a)
Database (C:\asgluns\sg22)	0.010	0.003	19.475	16.846	(n/a)
Database	0.010	0.002	20.406	17.970	(n/a)

(C:\asgluns\sg23)					
Database (C:\asgluns\sg24)	0.010	0.003	19.084	17.077	(n/a)
Database (C:\asgluns\sg25)	0.010	0.003	19.834	17.220	(n/a)
Database (C:\asgluns\sg26)	0.010	0.003	19.546	16.912	(n/a)
Database (C:\asgluns\sg27)	0.010	0.003	20.187	17.492	(n/a)
Database (C:\asgluns\sg28)	0.010	0.003	19.937	17.054	(n/a)
Database (C:\asgluns\sg29)	0.010	0.002	19.623	16.828	(n/a)
Database (C:\asgluns\sg30)	0.010	0.003	19.676	17.088	(n/a)
Database (C:\asgluns\sg31)	0.010	0.002	19.822	17.214	(n/a)
Database (C:\asgluns\sg32)	0.010	0.003	19.599	17.023	(n/a)
Database (C:\asgluns\sg33)	0.010	0.003	19.495	16.704	(n/a)
Database (C:\asgluns\sg34)	0.010	0.003	19.867	16.879	(n/a)
Database (C:\asgluns\sg35)	0.010	0.002	19.528	17.047	(n/a)
Database (C:\asgluns\sg36)	0.010	0.003	19.253	17.116	(n/a)
Database (C:\asgluns\sg37)	0.010	0.002	19.750	17.193	(n/a)
Database (C:\asgluns\sg38)	0.010	0.003	19.985	17.299	(n/a)
Database (C:\asgluns\sg39)	0.010	0.002	19.676	17.057	(n/a)
Database (C:\asgluns\sg40)	0.010	0.003	20.179	17.747	(n/a)
Database (C:\asgluns\sg41)	0.010	0.002	19.587	17.201	(n/a)
Database (C:\asgluns\sg42)	0.010	0.003	19.684	17.173	(n/a)
Database (C:\asgluns\sg43)	0.010	0.003	19.238	16.914	(n/a)
Database (C:\asgluns\sg44)	0.010	0.003	19.907	17.272	(n/a)
Database (C:\asgluns\sg45)	0.010	0.003	19.768	17.171	(n/a)

Database (C:\asgluns\sg46)	0.010	0.003	19.974	17.432	(n/a)
Database (C:\asgluns\sg47)	0.010	0.002	20.114	17.349	(n/a)
Database (C:\asgluns\sg48)	0.010	0.003	19.923	17.069	(n/a)
Database (C:\asgluns\sg49)	0.010	0.002	19.429	17.055	(n/a)
Database (C:\asgluns\sg50)	0.010	0.003	19.820	17.048	(n/a)
Log (C:\alogluns\log1)	0.000	0.001	0.000	14.582	4175.258
Log (C:\alogluns\log2)	0.000	0.001	0.000	14.004	4107.387
Log (C:\alogluns\log3)	0.000	0.001	0.000	14.487	4181.107
Log (C:\alogluns\log4)	0.000	0.001	0.000	14.747	4263.641
Log (C:\alogluns\log5)	0.000	0.001	0.000	14.464	4132.581
Log (C:\alogluns\log6)	0.000	0.001	0.000	14.099	4192.552
Log (C:\alogluns\log7)	0.000	0.001	0.000	13.882	4121.130
Log (C:\alogluns\log8)	0.000	0.001	0.000	13.942	4118.816
Log (C:\alogluns\log9)	0.000	0.001	0.000	14.342	4136.804
Log (C:\alogluns\log10)	0.000	0.001	0.000	14.154	4109.377
Log (C:\alogluns\log11)	0.000	0.001	0.000	14.049	4170.546
Log (C:\alogluns\log12)	0.000	0.001	0.000	14.341	4143.416
Log (C:\alogluns\log13)	0.000	0.001	0.000	13.876	4185.085
Log (C:\alogluns\log14)	0.000	0.001	0.000	13.967	4124.565
Log (C:\alogluns\log15)	0.000	0.001	0.000	14.241	4217.720
Log (C:\alogluns\log16)	0.000	0.001	0.000	14.449	4183.110
Log (C:\alogluns\log17)	0.000	0.001	0.000	14.401	4238.865
Log (C:\alogluns\log18)	0.000	0.001	0.000	14.519	4066.350
Log (C:\alogluns\log19)	0.000	0.001	0.000	13.722	4156.109
Log (C:\alogluns\log20)	0.000	0.001	0.000	14.275	4130.769
Log (C:\alogluns\log21)	0.000	0.001	0.000	14.547	4156.158
Log (C:\alogluns\log22)	0.000	0.001	0.000	13.854	4129.616
Log (C:\alogluns\log23)	0.000	0.001	0.000	14.720	4221.293
Log (C:\alogluns\log24)	0.000	0.001	0.000	14.526	4275.332
Log (C:\alogluns\log25)	0.000	0.001	0.000	14.220	4257.387
Log (C:\alogluns\log26)	0.000	0.001	0.000	13.757	4116.297
Log (C:\alogluns\log27)	0.000	0.001	0.000	14.348	4134.569
Log (C:\alogluns\log28)	0.000	0.001	0.000	14.131	4150.381
Log (C:\alogluns\log29)	0.000	0.001	0.000	13.798	4075.498

Log (C:\alogluns\log30)	0.000	0.001	0.000	14.170	4227.367
Log (C:\alogluns\log31)	0.000	0.001	0.000	14.292	4123.400
Log (C:\alogluns\log32)	0.000	0.001	0.000	13.941	4263.634
Log (C:\alogluns\log33)	0.000	0.001	0.000	13.830	4241.981
Log (C:\alogluns\log34)	0.000	0.001	0.000	13.887	4113.142
Log (C:\alogluns\log35)	0.000	0.001	0.000	14.210	4306.251
Log (C:\alogluns\log36)	0.000	0.001	0.000	14.182	4084.989
Log (C:\alogluns\log37)	0.000	0.001	0.000	14.210	4112.107
Log (C:\alogluns\log38)	0.000	0.001	0.000	14.307	4092.035
Log (C:\alogluns\log39)	0.000	0.001	0.000	14.038	4137.522
Log (C:\alogluns\log40)	0.000	0.001	0.000	14.301	4151.907
Log (C:\alogluns\log41)	0.000	0.001	0.000	14.209	4168.967
Log (C:\alogluns\log42)	0.000	0.001	0.000	14.268	4119.632
Log (C:\alogluns\log43)	0.000	0.001	0.000	13.984	4072.957
Log (C:\alogluns\log44)	0.000	0.001	0.000	13.975	4270.871
Log (C:\alogluns\log45)	0.000	0.001	0.000	14.299	4059.153
Log (C:\alogluns\log46)	0.000	0.001	0.000	14.270	4120.685
Log (C:\alogluns\log47)	0.000	0.001	0.000	14.146	4106.321
Log (C:\alogluns\log48)	0.000	0.001	0.000	14.018	4217.456
Log (C:\alogluns\log49)	0.000	0.001	0.000	14.105	4276.052
Log (C:\alogluns\log50)	0.000	0.001	0.000	14.155	4169.646

Host System Performance

<i>Counter</i>	<i>Average</i>	<i>Minimum</i>	<i>Maximum</i>
% Processor Time	0.943	0.642	1.477
Available MBytes	16843.440	16749.000	18042.000
Free System Page Table Entries	33561239.095	33560796.000	33561479.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	149506517.962	148971520.000	149745664.000
Pool Paged Bytes	197923859.402	197775360.000	198565888.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

```

10/28/2009 1:28:34 AM -- Jetstress testing begins ...
10/28/2009 1:28:34 AM -- Prepare testing begins ...
10/28/2009 1:29:25 AM -- Attaching databases ...
10/28/2009 1:29:25 AM -- Prepare testing ends.
10/28/2009 1:29:25 AM -- Dispatching transactions begins ...
10/28/2009 1:29:25 AM -- Database cache settings: (minimum: 1.6 GB, maximum: 12.5
GB)

```

10/28/2009 1:29:25 AM -- Database flush thresholds: (start: 128.0 MB, stop: 256.0 MB)
 10/28/2009 1:30:19 AM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).
 10/28/2009 1:30:19 AM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).
 10/28/2009 1:30:24 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%, Replaces 5%, Reads 25%, Lazy Commits 55%.
 10/28/2009 1:30:24 AM -- Performance logging begins (interval: 15000 ms).
 10/28/2009 1:30:24 AM -- Attaining prerequisites:
 10/28/2009 2:24:46 AM -- \MSExchange Database(Jetstresswin)\Database Cache Size, Last: 12080160000.0 (lower bound: 12079600000.0, upper bound: none)
 10/28/2009 4:24:47 AM -- Performance logging ends.
 10/28/2009 7:49:52 AM -- JetInterop batch transaction stats: 15197, 15240, 15285, 15220, 15280, 14969, 15113, 15291, 15126, 15101, 15136, 15204, 15207, 14856, 15084, 15169, 15188, 15152, 15217, 15234, 15194, 15223, 15357, 15186, 15155, 15073, 15057, 14954, 15261, 15160, 15196, 14986, 15010, 15047, 15023, 15058, 15061, 15137, 14978, 15157, 15313, 15132, 15106, 15136, 14990, 14943, 15049, 15195, 15156, and 15372.
 10/28/2009 7:49:53 AM -- Dispatching transactions ends.
 10/28/2009 7:49:53 AM -- Shutting down databases ...
 10/28/2009 7:50:10 AM -- Instance6920.1 (complete), Instance6920.2 (complete), Instance6920.3 (complete), Instance6920.4 (complete), Instance6920.5 (complete), Instance6920.6 (complete), Instance6920.7 (complete), Instance6920.8 (complete), Instance6920.9 (complete), Instance6920.10 (complete), Instance6920.11 (complete), Instance6920.12 (complete), Instance6920.13 (complete), Instance6920.14 (complete), Instance6920.15 (complete), Instance6920.16 (complete), Instance6920.17 (complete), Instance6920.18 (complete), Instance6920.19 (complete), Instance6920.20 (complete), Instance6920.21 (complete), Instance6920.22 (complete), Instance6920.23 (complete), Instance6920.24 (complete), Instance6920.25 (complete), Instance6920.26 (complete), Instance6920.27 (complete), Instance6920.28 (complete), Instance6920.29 (complete), Instance6920.30 (complete), Instance6920.31 (complete), Instance6920.32 (complete), Instance6920.33 (complete), Instance6920.34 (complete), Instance6920.35 (complete), Instance6920.36 (complete), Instance6920.37 (complete), Instance6920.38 (complete), Instance6920.39 (complete), Instance6920.40 (complete), Instance6920.41 (complete), Instance6920.42 (complete), Instance6920.43 (complete), Instance6920.44 (complete), Instance6920.45 (complete), Instance6920.46 (complete), Instance6920.47 (complete), Instance6920.48 (complete), Instance6920.49 (complete), and Instance6920.50 (complete)
 10/28/2009 7:50:12 AM -- Performance logging begins (interval: 30000 ms).
 10/28/2009 7:50:12 AM -- Verifying database checksums ...
 10/28/2009 1:10:28 PM -- C:\asgluns\sg1 (100% processed), C:\asgluns\sg2 (100% processed), C:\asgluns\sg3 (100% processed), C:\asgluns\sg4 (100% processed), C:\asgluns\sg5 (100% processed), C:\asgluns\sg6 (100% processed), C:\asgluns\sg7 (100% processed), C:\asgluns\sg8 (100% processed), C:\asgluns\sg9 (100% processed), C:\asgluns\sg10 (100% processed), C:\asgluns\sg11 (100% processed), C:\asgluns\sg12 (100% processed), C:\asgluns\sg13 (100% processed), C:\asgluns\sg14 (100% processed), C:\asgluns\sg15 (100% processed), C:\asgluns\sg16 (100% processed), C:\asgluns\sg17 (100% processed), C:\asgluns\sg18 (100% processed), C:\asgluns\sg19 (100% processed), C:\asgluns\sg20 (100% processed), C:\asgluns\sg21 (100% processed), C:\asgluns\sg22 (100% processed), C:\asgluns\sg23 (100% processed), C:\asgluns\sg24 (100% processed), C:\asgluns\sg25 (100% processed), C:\asgluns\sg26 (100% processed), C:\asgluns\sg27 (100% processed), C:\asgluns\sg28 (100% processed), C:\asgluns\sg29 (100% processed), C:\asgluns\sg30 (100% processed), C:\asgluns\sg31 (100% processed), C:\asgluns\sg32 (100% processed), C:\asgluns\sg33 (100% processed), C:\asgluns\sg34 (100% processed), C:\asgluns\sg35 (100% processed), C:\asgluns\sg36 (100% processed), C:\asgluns\sg37 (100% processed), C:\asgluns\sg38 (100% processed), C:\asgluns\sg39 (100% processed), C:\asgluns\sg40 (100% processed), C:\asgluns\sg41 (100% processed), C:\asgluns\sg42 (100% processed), C:\asgluns\sg43 (100% processed), C:\asgluns\sg44 (100% processed), C:\asgluns\sg45 (100% processed),

C:\asgluns\sg46 (100% processed), C:\asgluns\sg47 (100% processed),
 C:\asgluns\sg48 (100% processed), C:\asgluns\sg49 (100% processed), and
 C:\asgluns\sg50 (100% processed)
 10/28/2009 1:10:28 PM -- Performance logging ends.
 10/28/2009 1:10:28 PM --
 C:\ESRP_HDP_1GB_RAID10\Performance\DBChecksum_2009_10_28_7_50_10.blg has 637
 samples.
 10/28/2009 1:16:01 PM --
 C:\ESRP_HDP_1GB_RAID10\Performance\DBChecksum_2009_10_28_7_50_10.html is saved.
 10/28/2009 1:16:01 PM -- Verifying log checksums ...
 10/28/2009 1:16:13 PM -- C:\alogluns\log1 (2 logs passed), C:\alogluns\log2 (2
 logs passed), C:\alogluns\log3 (2 logs passed), C:\alogluns\log4 (2 logs passed),
 C:\alogluns\log5 (2 logs passed), C:\alogluns\log6 (2 logs passed),
 C:\alogluns\log7 (2 logs passed), C:\alogluns\log8 (2 logs passed),
 C:\alogluns\log9 (2 logs passed), C:\alogluns\log10 (2 logs passed),
 C:\alogluns\log11 (2 logs passed), C:\alogluns\log12 (2 logs passed),
 C:\alogluns\log13 (2 logs passed), C:\alogluns\log14 (2 logs passed),
 C:\alogluns\log15 (2 logs passed), C:\alogluns\log16 (2 logs passed),
 C:\alogluns\log17 (2 logs passed), C:\alogluns\log18 (2 logs passed),
 C:\alogluns\log19 (2 logs passed), C:\alogluns\log20 (2 logs passed),
 C:\alogluns\log21 (2 logs passed), C:\alogluns\log22 (2 logs passed),
 C:\alogluns\log23 (2 logs passed), C:\alogluns\log24 (2 logs passed),
 C:\alogluns\log25 (2 logs passed), C:\alogluns\log26 (2 logs passed),
 C:\alogluns\log27 (2 logs passed), C:\alogluns\log28 (2 logs passed),
 C:\alogluns\log29 (2 logs passed), C:\alogluns\log30 (2 logs passed),
 C:\alogluns\log31 (2 logs passed), C:\alogluns\log32 (2 logs passed),
 C:\alogluns\log33 (2 logs passed), C:\alogluns\log34 (2 logs passed),
 C:\alogluns\log35 (2 logs passed), C:\alogluns\log36 (2 logs passed),
 C:\alogluns\log37 (2 logs passed), C:\alogluns\log38 (2 logs passed),
 C:\alogluns\log39 (2 logs passed), C:\alogluns\log40 (2 logs passed),
 C:\alogluns\log41 (2 logs passed), C:\alogluns\log42 (2 logs passed),
 C:\alogluns\log43 (3 logs passed), C:\alogluns\log44 (2 logs passed),
 C:\alogluns\log45 (2 logs passed), C:\alogluns\log46 (2 logs passed),
 C:\alogluns\log47 (2 logs passed), C:\alogluns\log48 (2 logs passed),
 C:\alogluns\log49 (2 logs passed), and C:\alogluns\log50 (2 logs passed)
 10/28/2009 1:16:13 PM --
 C:\ESRP_HDP_1GB_RAID10\Performance\Performance_2009_10_28_1_30_19.blg has 689
 samples.
 10/28/2009 1:16:13 PM -- Creating test report ...
 10/28/2009 1:16:55 PM -- Volume C:\asgluns\sg1 has 0.0113 for Avg. Disk sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg2 has 0.0101 for Avg. Disk sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg3 has 0.0100 for Avg. Disk sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg4 has 0.0100 for Avg. Disk sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg5 has 0.0100 for Avg. Disk sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg6 has 0.0101 for Avg. Disk sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg7 has 0.0099 for Avg. Disk sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg8 has 0.0102 for Avg. Disk sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg9 has 0.0099 for Avg. Disk sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg10 has 0.0101 for Avg. Disk
 sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg11 has 0.0100 for Avg. Disk
 sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg12 has 0.0100 for Avg. Disk
 sec/Read.
 10/28/2009 1:16:55 PM -- volume C:\asgluns\sg13 has 0.0099 for Avg. Disk
 sec/Read.
 10/28/2009 1:16:56 PM -- volume C:\asgluns\sg14 has 0.0102 for Avg. Disk
 sec/Read.
 10/28/2009 1:16:56 PM -- volume C:\asgluns\sg15 has 0.0099 for Avg. Disk
 sec/Read.
 10/28/2009 1:16:56 PM -- volume C:\asgluns\sg16 has 0.0101 for Avg. Disk
 sec/Read.
 10/28/2009 1:16:56 PM -- volume C:\asgluns\sg17 has 0.0101 for Avg. Disk
 sec/Read.
 10/28/2009 1:16:56 PM -- volume C:\asgluns\sg18 has 0.0100 for Avg. Disk

sec/Read.
 10/28/2009 1:16:59 PM -- volume C:\alogluns\log50 has 0.0008 for Avg. Disk
 sec/Write.
 10/28/2009 1:16:59 PM -- volume C:\alogluns\log50 has 0.0000 for Avg. Disk
 sec/Read.
 10/28/2009 1:16:59 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.
 10/28/2009 1:16:59 PM -- Test has 0 Database Page Fault Stalls/sec samples higher
 than 0.
 10/28/2009 1:16:59 PM --
 C:\ESRP_HDP_1GB_RAID10\Performance\Performance_2009_10_28_1_30_19.xml has 474
 samples queried.

Performance Test Database Checksums Result: SUN165

Checksum Statistics - All

<i>Database</i>	<i>Seen pages</i>	<i>Bad pages</i>	<i>Correctable pages</i>	<i>Wrong page no pages</i>	<i>File length / seconds taken</i>
C:\asgluns\sg1\Jetstress1.edb	8791618	0	0	0	68684 MBytes / 19087 seconds
C:\asgluns\sg2\Jetstress1.edb	8794946	0	0	0	68710 MBytes / 19198 seconds
C:\asgluns\sg3\Jetstress1.edb	8795202	0	0	0	68712 MBytes / 18000 seconds
C:\asgluns\sg4\Jetstress1.edb	8792898	0	0	0	68694 MBytes / 19210 seconds
C:\asgluns\sg5\Jetstress1.edb	8792642	0	0	0	68692 MBytes / 17955 seconds
C:\asgluns\sg6\Jetstress1.edb	8792898	0	0	0	68694 MBytes / 19214 seconds
C:\asgluns\sg7\Jetstress1.edb	8790338	0	0	0	68674 MBytes / 17994 seconds
C:\asgluns\sg8\Jetstress1.edb	8792386	0	0	0	68690 MBytes / 19184 seconds
C:\asgluns\sg9\Jetstress1.edb	8793666	0	0	0	68700 MBytes / 17972 seconds
C:\asgluns\sg10\Jetstress1.edb	8791618	0	0	0	68684 MBytes / 19212 seconds
C:\asgluns\sg11\Jetstress1.edb	8792898	0	0	0	68694 MBytes / 17991 seconds
C:\asgluns\sg12\Jetstress1.edb	8794690	0	0	0	68708 MBytes / 19181 seconds
C:\asgluns\sg13\Jetstress1.edb	8792386	0	0	0	68690 MBytes / 17965 seconds
C:\asgluns\sg14\Jetstress1.edb	8791362	0	0	0	68682 MBytes / 19212 seconds
C:\asgluns\sg15\Jetstress1.edb	8792642	0	0	0	68692 MBytes / 18001 seconds
C:\asgluns\sg16\Jetstress1.edb	8793154	0	0	0	68696 MBytes / 19210 seconds

C:\asgluns\sg17\Jetstress1.edb	8794434	0	0	0	68706 MBytes / 17999 seconds
C:\asgluns\sg18\Jetstress1.edb	8793666	0	0	0	68700 MBytes / 19194 seconds
C:\asgluns\sg19\Jetstress1.edb	8792642	0	0	0	68692 MBytes / 17953 seconds
C:\asgluns\sg20\Jetstress1.edb	8793666	0	0	0	68700 MBytes / 19206 seconds
C:\asgluns\sg21\Jetstress1.edb	8794178	0	0	0	68704 MBytes / 17979 seconds
C:\asgluns\sg22\Jetstress1.edb	8793666	0	0	0	68700 MBytes / 19207 seconds
C:\asgluns\sg23\Jetstress1.edb	8795714	0	0	0	68716 MBytes / 17941 seconds
C:\asgluns\sg24\Jetstress1.edb	8797506	0	0	0	68730 MBytes / 19213 seconds
C:\asgluns\sg25\Jetstress1.edb	8791362	0	0	0	68682 MBytes / 17938 seconds
C:\asgluns\sg26\Jetstress1.edb	8790594	0	0	0	68676 MBytes / 19195 seconds
C:\asgluns\sg27\Jetstress1.edb	8792898	0	0	0	68694 MBytes / 17963 seconds
C:\asgluns\sg28\Jetstress1.edb	8792898	0	0	0	68694 MBytes / 19188 seconds
C:\asgluns\sg29\Jetstress1.edb	8793154	0	0	0	68696 MBytes / 17967 seconds
C:\asgluns\sg30\Jetstress1.edb	8794946	0	0	0	68710 MBytes / 19195 seconds
C:\asgluns\sg31\Jetstress1.edb	8792386	0	0	0	68690 MBytes / 17926 seconds
C:\asgluns\sg32\Jetstress1.edb	8792130	0	0	0	68688 MBytes / 19201 seconds
C:\asgluns\sg33\Jetstress1.edb	8792898	0	0	0	68694 MBytes / 17951 seconds
C:\asgluns\sg34\Jetstress1.edb	8791874	0	0	0	68686 MBytes / 19185 seconds
C:\asgluns\sg35\Jetstress1.edb	8793666	0	0	0	68700 MBytes / 17947 seconds
C:\asgluns\sg36\Jetstress1.edb	8793666	0	0	0	68700 MBytes / 19204 seconds
C:\asgluns\sg37\Jetstress1.edb	8792898	0	0	0	68694 MBytes / 17952 seconds
C:\asgluns\sg38\Jetstress1.edb	8793922	0	0	0	68702 MBytes / 19190 seconds
C:\asgluns\sg39\Jetstress1.edb	8791618	0	0	0	68684 MBytes / 17952

					seconds
C:\asgluns\sg40\Jetstress1.edb	8792642	0	0	0	68692 MBytes / 19202 seconds
C:\asgluns\sg41\Jetstress1.edb	8793666	0	0	0	68700 MBytes / 17981 seconds
C:\asgluns\sg42\Jetstress1.edb	8792898	0	0	0	68694 MBytes / 19201 seconds
C:\asgluns\sg43\Jetstress1.edb	8792642	0	0	0	68692 MBytes / 17988 seconds
C:\asgluns\sg44\Jetstress1.edb	8791618	0	0	0	68684 MBytes / 19202 seconds
C:\asgluns\sg45\Jetstress1.edb	8793922	0	0	0	68702 MBytes / 17979 seconds
C:\asgluns\sg46\Jetstress1.edb	8791362	0	0	0	68682 MBytes / 19186 seconds
C:\asgluns\sg47\Jetstress1.edb	8792386	0	0	0	68690 MBytes / 17972 seconds
C:\asgluns\sg48\Jetstress1.edb	8793410	0	0	0	68698 MBytes / 19191 seconds
C:\asgluns\sg49\Jetstress1.edb	8793922	0	0	0	68702 MBytes / 17970 seconds
C:\asgluns\sg50\Jetstress1.edb	8795458	0	0	0	68714 MBytes / 19199 seconds
(Sum)	439655652	0	0	0	3434809 MBytes / 19216 seconds

Disk Subsystem Performance of Checksum

<i>Logical Disk</i>	<i>Avg. Disk sec/Read</i>	<i>Avg. Disk sec/Write</i>	<i>Disk Reads/sec</i>	<i>Disk Writes/sec</i>
C:\asgluns\sg1	0.283	0.000	56.565	0.000
C:\asgluns\sg2	0.280	0.000	57.094	0.000
C:\asgluns\sg3	0.260	0.000	60.953	0.000
C:\asgluns\sg4	0.284	0.000	57.069	0.000
C:\asgluns\sg5	0.257	0.000	61.177	0.000
C:\asgluns\sg6	0.286	0.000	56.915	0.000
C:\asgluns\sg7	0.259	0.000	61.039	0.000
C:\asgluns\sg8	0.280	0.000	57.224	0.000
C:\asgluns\sg9	0.258	0.000	61.118	0.000
C:\asgluns\sg10	0.284	0.000	57.062	0.000
C:\asgluns\sg11	0.259	0.000	60.935	0.000
C:\asgluns\sg12	0.281	0.000	57.249	0.000
C:\asgluns\sg13	0.257	0.000	61.184	0.000

C:\asgluns\sg14	0.282	0.000	57.046	0.000
C:\asgluns\sg15	0.259	0.000	60.984	0.000
C:\asgluns\sg16	0.283	0.000	57.043	0.000
C:\asgluns\sg17	0.259	0.001	60.981	0.000
C:\asgluns\sg18	0.281	0.000	57.137	0.000
C:\asgluns\sg19	0.257	0.000	61.188	0.000
C:\asgluns\sg20	0.283	0.000	57.123	0.000
C:\asgluns\sg21	0.258	0.000	61.097	0.000
C:\asgluns\sg22	0.283	0.000	57.126	0.000
C:\asgluns\sg23	0.257	0.000	61.273	0.000
C:\asgluns\sg24	0.287	0.000	56.949	0.000
C:\asgluns\sg25	0.257	0.000	61.254	0.000
C:\asgluns\sg26	0.284	0.000	57.233	0.000
C:\asgluns\sg27	0.257	0.000	61.172	0.000
C:\asgluns\sg28	0.280	0.000	57.158	0.000
C:\asgluns\sg29	0.257	0.001	61.154	0.000
C:\asgluns\sg30	0.285	0.000	57.242	0.000
C:\asgluns\sg31	0.257	0.000	61.308	0.000
C:\asgluns\sg32	0.282	0.000	57.117	0.000
C:\asgluns\sg33	0.257	0.000	61.197	0.000
C:\asgluns\sg34	0.280	0.000	57.157	0.000
C:\asgluns\sg35	0.258	0.001	61.237	0.000
C:\asgluns\sg36	0.283	0.001	57.037	0.000
C:\asgluns\sg37	0.257	0.000	61.199	0.000
C:\asgluns\sg38	0.286	0.000	57.258	0.000
C:\asgluns\sg39	0.257	0.001	61.198	0.000
C:\asgluns\sg40	0.284	0.000	57.039	0.000
C:\asgluns\sg41	0.258	0.000	61.003	0.000
C:\asgluns\sg42	0.284	0.000	56.981	0.000
C:\asgluns\sg43	0.259	0.000	61.030	0.000
C:\asgluns\sg44	0.284	0.000	56.925	0.000
C:\asgluns\sg45	0.258	0.001	60.944	0.000
C:\asgluns\sg46	0.281	0.000	57.252	0.000
C:\asgluns\sg47	0.258	0.000	61.037	0.000
C:\asgluns\sg48	0.281	0.000	57.190	0.000
C:\asgluns\sg49	0.258	0.000	61.068	0.000
C:\asgluns\sg50	0.284	0.000	56.926	0.000

Memory System Performance of Checksum

Counter	Average	Minimum	Maximum
% Processor Time	1.263	0.236	1.595
Available MBytes	29961.788	29949.000	30069.000
Free System Page Table Entries	33560848.769	33560300.000	33562881.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	151584202.148	151474176.000	151617536.000
Pool Paged Bytes	203694742.305	195883008.000	211050496.000

Test Log

```

10/28/2009 1:28:34 AM -- Jetstress testing begins ...
10/28/2009 1:28:34 AM -- Prepare testing begins ...
10/28/2009 1:29:25 AM -- Attaching databases ...
10/28/2009 1:29:25 AM -- Prepare testing ends.
10/28/2009 1:29:25 AM -- Dispatching transactions begins ...
10/28/2009 1:29:25 AM -- Database cache settings: (minimum: 1.6 GB, maximum: 12.5 GB)
10/28/2009 1:29:25 AM -- Database flush thresholds: (start: 128.0 MB, stop: 256.0 MB)
10/28/2009 1:30:19 AM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05
seconds/read).
10/28/2009 1:30:19 AM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05
seconds/write).
10/28/2009 1:30:24 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%, Replaces 5%, Reads 25%,
Lazy Commits 55%.
10/28/2009 1:30:24 AM -- Performance logging begins (interval: 15000 ms).
10/28/2009 1:30:24 AM -- Attaining prerequisites:
10/28/2009 2:24:46 AM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 12080160000.0
(lower bound: 12079600000.0, upper bound: none)
10/28/2009 4:24:47 AM -- Performance logging ends.
10/28/2009 7:49:52 AM -- JetInterop batch transaction stats: 15197, 15240, 15285, 15220, 15280, 14969,
15113, 15291, 15126, 15101, 15136, 15204, 15207, 14856, 15084, 15169, 15188, 15152, 15217, 15234,
15194, 15223, 15357, 15186, 15155, 15073, 15057, 14954, 15261, 15160, 15196, 14986, 15010, 15047,
15023, 15058, 15061, 15137, 14978, 15157, 15313, 15132, 15106, 15136, 14990, 14943, 15049, 15195,
15156,
and 15372.
10/28/2009 7:49:53 AM -- Dispatching transactions ends.
10/28/2009 7:49:53 AM -- Shutting down databases ...
10/28/2009 7:50:10 AM -- Instance6920.1 (complete), Instance6920.2 (complete), Instance6920.3 (complete),
Instance6920.4 (complete), Instance6920.5 (complete), Instance6920.6 (complete), Instance6920.7
(complete), Instance6920.8 (complete), Instance6920.9 (complete), Instance6920.10 (complete),
Instance6920.11 (complete), Instance6920.12 (complete), Instance6920.13 (complete), Instance6920.14
(complete), Instance6920.15 (complete), Instance6920.16 (complete), Instance6920.17 (complete),
Instance6920.18 (complete), Instance6920.19 (complete), Instance6920.20 (complete), Instance6920.21
(complete), Instance6920.22 (complete), Instance6920.23 (complete), Instance6920.24 (complete),
Instance6920.25 (complete), Instance6920.26 (complete), Instance6920.27 (complete), Instance6920.28
(complete), Instance6920.29 (complete), Instance6920.30 (complete), Instance6920.31 (complete),
Instance6920.32 (complete), Instance6920.33 (complete), Instance6920.34 (complete), Instance6920.35
(complete), Instance6920.36 (complete), Instance6920.37 (complete), Instance6920.38 (complete),
Instance6920.39 (complete), Instance6920.40 (complete), Instance6920.41 (complete), Instance6920.42
(complete), Instance6920.43 (complete), Instance6920.44 (complete), Instance6920.45 (complete),
Instance6920.46 (complete), Instance6920.47 (complete), Instance6920.48 (complete), Instance6920.49
(complete),
and Instance6920.50 (complete)

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```

10/28/2009 7:50:12 AM -- Performance logging begins (interval: 30000 ms).
10/28/2009 7:50:12 AM -- Verifying database checksums ...
10/28/2009 1:10:28 PM -- C:\asgluns\sg1 (100% processed), C:\asgluns\sg2 (100% processed),
C:\asgluns\sg3 (100% processed), C:\asgluns\sg4 (100% processed), C:\asgluns\sg5 (100% processed),
C:\asgluns\sg6 (100% processed), C:\asgluns\sg7 (100% processed), C:\asgluns\sg8 (100% processed),
C:\asgluns\sg9 (100% processed), C:\asgluns\sg10 (100% processed), C:\asgluns\sg11 (100% processed),
C:\asgluns\sg12 (100% processed), C:\asgluns\sg13 (100% processed), C:\asgluns\sg14 (100% processed),
C:\asgluns\sg15 (100% processed), C:\asgluns\sg16 (100% processed), C:\asgluns\sg17 (100% processed),
C:\asgluns\sg18 (100% processed), C:\asgluns\sg19 (100% processed), C:\asgluns\sg20 (100% processed),
C:\asgluns\sg21 (100% processed), C:\asgluns\sg22 (100% processed), C:\asgluns\sg23 (100% processed),
C:\asgluns\sg24 (100% processed), C:\asgluns\sg25 (100% processed), C:\asgluns\sg26 (100% processed),
C:\asgluns\sg27 (100% processed), C:\asgluns\sg28 (100% processed), C:\asgluns\sg29 (100% processed),
C:\asgluns\sg30 (100% processed), C:\asgluns\sg31 (100% processed), C:\asgluns\sg32 (100% processed),
C:\asgluns\sg33 (100% processed), C:\asgluns\sg34 (100% processed), C:\asgluns\sg35 (100% processed),
C:\asgluns\sg36 (100% processed), C:\asgluns\sg37 (100% processed), C:\asgluns\sg38 (100% processed),
C:\asgluns\sg39 (100% processed), C:\asgluns\sg40 (100% processed), C:\asgluns\sg41 (100% processed),
C:\asgluns\sg42 (100% processed), C:\asgluns\sg43 (100% processed), C:\asgluns\sg44 (100% processed),
C:\asgluns\sg45 (100% processed), C:\asgluns\sg46 (100% processed), C:\asgluns\sg47 (100% processed),
C:\asgluns\sg48 (100% processed), C:\asgluns\sg49 (100% processed), and C:\asgluns\sg50 (100%
processed)
10/28/2009 1:10:28 PM -- Performance logging ends.
10/28/2009 1:10:28 PM --
C:\ESRP_HDP_1GB_RAID10\Performance\DBChecksum_2009_10_28_7_50_10.blg has 637 samples.

```

Stress Test Database Performance Result: SUN165

Test Summary

Overall Test Result	Pass
Machine Name	SUN165
Test Description	24 hours
Test Start Time	10/28/2009 9:09:11 PM
Test End Time	10/29/2009 10:12:52 PM
Jetstress Version	08.02.0060.000
Ese Version	08.01.0240.005
Operating System	Windows Server (R) 2008 Enterprise Service Pack 1 (6.0.6001.65536)
Performance Log	C:\ESRP_HDP_1GB_RAID10\Stress\Stress_2009_10_28_21_10_56.blg C:\ESRP_HDP_1GB_RAID10\Stress\DBChecksum_2009_10_29_22_12_52.blg

Database Sizing and Throughput

Achieved I/O per Second	1845.636
Target I/O per Second	1305.6
Initial database size	3601659101184
Final database size	3685882822656
Database files (count)	50

Jetstress System Parameters

Thread count	2 (per storage group)
Log buffers	9000
Minimum database cache	1600.0 MB
Maximum database cache	12800.0 MB
Insert operations	40%
Delete operations	30%
Replace operations	5%
Read operations	25%
Lazy commits	55%

Disk Subsystem Performance

Logical Disk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
Database (C:\asgluns\sg1)	0.011	0.003	20.170	16.993	(n/a)
Database (C:\asgluns\sg2)	0.010	0.003	20.168	16.881	(n/a)
Database (C:\asgluns\sg3)	0.010	0.003	20.148	16.826	(n/a)
Database (C:\asgluns\sg4)	0.010	0.003	20.151	16.772	(n/a)
Database (C:\asgluns\sg5)	0.010	0.003	19.956	16.754	(n/a)
Database (C:\asgluns\sg6)	0.010	0.003	20.056	16.782	(n/a)
Database (C:\asgluns\sg7)	0.010	0.003	19.988	16.830	(n/a)
Database (C:\asgluns\sg8)	0.010	0.003	19.972	16.746	(n/a)
Database (C:\asgluns\sg9)	0.010	0.003	20.083	16.787	(n/a)
Database (C:\asgluns\sg10)	0.010	0.003	20.135	16.830	(n/a)
Database (C:\asgluns\sg11)	0.010	0.003	20.023	16.594	(n/a)
Database (C:\asgluns\sg12)	0.010	0.003	20.185	16.806	(n/a)
Database (C:\asgluns\sg13)	0.010	0.002	20.097	16.790	(n/a)
Database (C:\asgluns\sg14)	0.010	0.003	19.961	16.621	(n/a)

Database (C:\asgluns\sg15)	0.010	0.003	19.951	16.596	(n/a)
Database (C:\asgluns\sg16)	0.010	0.003	20.189	16.911	(n/a)
Database (C:\asgluns\sg17)	0.010	0.003	20.177	16.744	(n/a)
Database (C:\asgluns\sg18)	0.010	0.003	20.113	16.815	(n/a)
Database (C:\asgluns\sg19)	0.010	0.003	20.209	16.893	(n/a)
Database (C:\asgluns\sg20)	0.010	0.003	20.199	16.796	(n/a)
Database (C:\asgluns\sg21)	0.010	0.003	20.183	16.902	(n/a)
Database (C:\asgluns\sg22)	0.010	0.003	20.027	16.724	(n/a)
Database (C:\asgluns\sg23)	0.010	0.003	20.178	16.887	(n/a)
Database (C:\asgluns\sg24)	0.010	0.003	20.192	16.792	(n/a)
Database (C:\asgluns\sg25)	0.010	0.003	20.184	16.919	(n/a)
Database (C:\asgluns\sg26)	0.010	0.003	19.986	16.709	(n/a)
Database (C:\asgluns\sg27)	0.010	0.003	20.238	16.965	(n/a)
Database (C:\asgluns\sg28)	0.010	0.003	20.037	16.718	(n/a)
Database (C:\asgluns\sg29)	0.010	0.003	20.103	16.829	(n/a)
Database (C:\asgluns\sg30)	0.010	0.003	19.944	16.644	(n/a)
Database (C:\asgluns\sg31)	0.010	0.003	20.264	16.988	(n/a)
Database (C:\asgluns\sg32)	0.010	0.003	20.064	16.731	(n/a)
Database (C:\asgluns\sg33)	0.010	0.003	20.129	16.875	(n/a)
Database (C:\asgluns\sg34)	0.010	0.003	20.074	16.765	(n/a)
Database (C:\asgluns\sg35)	0.010	0.003	20.071	16.787	(n/a)
Database (C:\asgluns\sg36)	0.010	0.003	20.093	16.776	(n/a)
Database	0.010	0.003	20.294	16.976	(n/a)

(C:\asgluns\sg37)					
Database (C:\asgluns\sg38)	0.010	0.003	20.043	16.767	(n/a)
Database (C:\asgluns\sg39)	0.010	0.003	20.102	16.868	(n/a)
Database (C:\asgluns\sg40)	0.010	0.003	20.078	16.876	(n/a)
Database (C:\asgluns\sg41)	0.010	0.003	20.098	16.693	(n/a)
Database (C:\asgluns\sg42)	0.010	0.003	19.992	16.715	(n/a)
Database (C:\asgluns\sg43)	0.010	0.003	20.175	16.793	(n/a)
Database (C:\asgluns\sg44)	0.010	0.003	20.222	17.050	(n/a)
Database (C:\asgluns\sg45)	0.010	0.003	20.270	16.953	(n/a)
Database (C:\asgluns\sg46)	0.010	0.003	20.136	16.869	(n/a)
Database (C:\asgluns\sg47)	0.010	0.003	20.041	16.684	(n/a)
Database (C:\asgluns\sg48)	0.010	0.003	20.172	16.787	(n/a)
Database (C:\asgluns\sg49)	0.010	0.003	19.974	16.664	(n/a)
Database (C:\asgluns\sg50)	0.010	0.003	20.089	16.778	(n/a)
Log (C:\alogluns\log1)	0.000	0.001	0.000	14.056	4110.751
Log (C:\alogluns\log2)	0.000	0.001	0.000	13.936	4121.395
Log (C:\alogluns\log3)	0.000	0.001	0.000	13.891	4099.704
Log (C:\alogluns\log4)	0.000	0.001	0.000	13.827	4103.389
Log (C:\alogluns\log5)	0.000	0.001	0.000	13.905	4113.652
Log (C:\alogluns\log6)	0.000	0.001	0.000	13.802	4064.773
Log (C:\alogluns\log7)	0.000	0.001	0.000	13.855	4096.053
Log (C:\alogluns\log8)	0.000	0.001	0.000	13.827	4106.980
Log (C:\alogluns\log9)	0.000	0.001	0.000	13.818	4096.954
Log (C:\alogluns\log10)	0.000	0.001	0.000	13.880	4120.267
Log (C:\alogluns\log11)	0.000	0.001	0.000	13.686	4117.803
Log (C:\alogluns\log12)	0.000	0.001	0.000	13.825	4114.523
Log (C:\alogluns\log13)	0.000	0.001	0.000	13.795	4076.365
Log (C:\alogluns\log14)	0.000	0.001	0.000	13.723	4100.459
Log (C:\alogluns\log15)	0.000	0.001	0.000	13.721	4105.729

Log (C:\alogluns\log16)	0.000	0.001	0.000	13.959	4135.206
Log (C:\alogluns\log17)	0.000	0.001	0.000	13.806	4118.414
Log (C:\alogluns\log18)	0.000	0.001	0.000	13.862	4117.274
Log (C:\alogluns\log19)	0.000	0.001	0.000	13.908	4099.121
Log (C:\alogluns\log20)	0.000	0.001	0.000	13.807	4109.487
Log (C:\alogluns\log21)	0.000	0.001	0.000	13.911	4105.052
Log (C:\alogluns\log22)	0.000	0.001	0.000	13.784	4116.204
Log (C:\alogluns\log23)	0.000	0.001	0.000	13.933	4109.744
Log (C:\alogluns\log24)	0.000	0.001	0.000	13.882	4100.886
Log (C:\alogluns\log25)	0.000	0.001	0.000	13.972	4131.320
Log (C:\alogluns\log26)	0.000	0.001	0.000	13.752	4130.596
Log (C:\alogluns\log27)	0.000	0.001	0.000	13.931	4123.675
Log (C:\alogluns\log28)	0.000	0.001	0.000	13.758	4084.378
Log (C:\alogluns\log29)	0.000	0.001	0.000	13.879	4131.691
Log (C:\alogluns\log30)	0.000	0.001	0.000	13.733	4123.021
Log (C:\alogluns\log31)	0.000	0.001	0.000	13.993	4103.872
Log (C:\alogluns\log32)	0.000	0.001	0.000	13.776	4084.936
Log (C:\alogluns\log33)	0.000	0.001	0.000	13.896	4122.894
Log (C:\alogluns\log34)	0.000	0.001	0.000	13.778	4126.496
Log (C:\alogluns\log35)	0.000	0.001	0.000	13.826	4135.897
Log (C:\alogluns\log36)	0.000	0.001	0.000	13.792	4104.851
Log (C:\alogluns\log37)	0.000	0.001	0.000	13.991	4112.550
Log (C:\alogluns\log38)	0.000	0.001	0.000	13.763	4121.818
Log (C:\alogluns\log39)	0.000	0.001	0.000	13.898	4142.579
Log (C:\alogluns\log40)	0.000	0.001	0.000	13.894	4121.387
Log (C:\alogluns\log41)	0.000	0.001	0.000	13.755	4085.152
Log (C:\alogluns\log42)	0.000	0.001	0.000	13.704	4081.347
Log (C:\alogluns\log43)	0.000	0.001	0.000	13.788	4088.835
Log (C:\alogluns\log44)	0.000	0.001	0.000	14.040	4109.226
Log (C:\alogluns\log45)	0.000	0.001	0.000	13.923	4108.513
Log (C:\alogluns\log46)	0.000	0.001	0.000	13.935	4126.163
Log (C:\alogluns\log47)	0.000	0.001	0.000	13.703	4109.620
Log (C:\alogluns\log48)	0.000	0.001	0.000	13.811	4119.254
Log (C:\alogluns\log49)	0.000	0.001	0.000	13.761	4117.787
Log (C:\alogluns\log50)	0.000	0.001	0.000	13.884	4120.712

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	0.949	0.565	1.490
Available MBytes	16848.939	16768.000	18061.000
Free System Page Table Entries	33561785.550	33561333.000	33562048.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	154734150.317	152109056.000	155652096.000
Pool Paged Bytes	200841128.239	199335936.000	232353792.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

```
10/28/2009 9:09:11 PM -- Jetstress testing begins ...
10/28/2009 9:09:11 PM -- Prepare testing begins ...
10/28/2009 9:10:02 PM -- Attaching databases ...
10/28/2009 9:10:02 PM -- Prepare testing ends.
10/28/2009 9:10:02 PM -- Dispatching transactions begins ...
10/28/2009 9:10:02 PM -- Database cache settings: (minimum: 1.6 GB, maximum: 12.5
GB)
10/28/2009 9:10:02 PM -- Database flush thresholds: (start: 128.0 MB, stop: 256.0
MB)
10/28/2009 9:10:56 PM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.1 seconds/read).
10/28/2009 9:10:56 PM -- Log write latency thresholds: (average: 0.01
seconds/write, maximum: 0.1 seconds/write).
10/28/2009 9:11:02 PM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
10/28/2009 9:11:02 PM -- Performance logging begins (interval: 15000 ms).
10/28/2009 9:11:02 PM -- Attaining prerequisites:
10/28/2009 10:04:53 PM -- \MSExchange Database(Jetstresswin)\Database Cache Size,
Last: 12083090000.0 (lower bound: 12079600000.0, upper bound: none)
10/29/2009 10:04:53 PM -- Performance logging ends.
10/29/2009 10:12:41 PM -- JetInterop batch transaction stats: 59707, 59517,
59467, 59326, 59345, 58944, 59392, 59189, 59016, 59287, 58956, 59384, 59133,
58847, 58834, 59554, 59363, 59295, 59293, 59201, 59251, 59142, 59595, 59361,
59784, 59166, 59578, 58797, 59609, 58817, 59742, 59012, 59357, 59269, 59096,
59426, 59737, 59122, 59481, 59313, 59141, 58782, 59247, 60003, 59751, 59742,
58949, 59385, 58893, and 59351.
10/29/2009 10:12:41 PM -- Dispatching transactions ends.
10/29/2009 10:12:41 PM -- Shutting down databases ...
10/29/2009 10:12:52 PM -- Instance5432.1 (complete), Instance5432.2 (complete),
Instance5432.3 (complete), Instance5432.4 (complete), Instance5432.5 (complete),
Instance5432.6 (complete), Instance5432.7 (complete), Instance5432.8 (complete),
Instance5432.9 (complete), Instance5432.10 (complete), Instance5432.11
(complete), Instance5432.12 (complete), Instance5432.13 (complete),
Instance5432.14 (complete), Instance5432.15 (complete), Instance5432.16
(complete), Instance5432.17 (complete), Instance5432.18 (complete),
Instance5432.19 (complete), Instance5432.20 (complete), Instance5432.21
(complete), Instance5432.22 (complete), Instance5432.23 (complete),
Instance5432.24 (complete), Instance5432.25 (complete), Instance5432.26
(complete), Instance5432.27 (complete), Instance5432.28 (complete),
Instance5432.29 (complete), Instance5432.30 (complete), Instance5432.31
(complete), Instance5432.32 (complete), Instance5432.33 (complete),
Instance5432.34 (complete), Instance5432.35 (complete), Instance5432.36
(complete), Instance5432.37 (complete), Instance5432.38 (complete),
Instance5432.39 (complete), Instance5432.40 (complete), Instance5432.41
(complete), Instance5432.42 (complete), Instance5432.43 (complete),
```

Instance5432.44 (complete), Instance5432.45 (complete), Instance5432.46 (complete), Instance5432.47 (complete), Instance5432.48 (complete), Instance5432.49 (complete), and Instance5432.50 (complete)
10/29/2009 10:12:53 PM -- Performance logging begins (interval: 30000 ms).
10/29/2009 10:12:53 PM -- verifying database checksums ...
10/30/2009 3:30:44 AM -- C:\asgluns\sg1 (100% processed), C:\asgluns\sg2 (100% processed), C:\asgluns\sg3 (100% processed), C:\asgluns\sg4 (100% processed), C:\asgluns\sg5 (100% processed), C:\asgluns\sg6 (100% processed), C:\asgluns\sg7 (100% processed), C:\asgluns\sg8 (100% processed), C:\asgluns\sg9 (100% processed), C:\asgluns\sg10 (100% processed), C:\asgluns\sg11 (100% processed), C:\asgluns\sg12 (100% processed), C:\asgluns\sg13 (100% processed), C:\asgluns\sg14 (100% processed), C:\asgluns\sg15 (100% processed), C:\asgluns\sg16 (100% processed), C:\asgluns\sg17 (100% processed), C:\asgluns\sg18 (100% processed), C:\asgluns\sg19 (100% processed), C:\asgluns\sg20 (100% processed), C:\asgluns\sg21 (100% processed), C:\asgluns\sg22 (100% processed), C:\asgluns\sg23 (100% processed), C:\asgluns\sg24 (100% processed), C:\asgluns\sg25 (100% processed), C:\asgluns\sg26 (100% processed), C:\asgluns\sg27 (100% processed), C:\asgluns\sg28 (100% processed), C:\asgluns\sg29 (100% processed), C:\asgluns\sg30 (100% processed), C:\asgluns\sg31 (100% processed), C:\asgluns\sg32 (100% processed), C:\asgluns\sg33 (100% processed), C:\asgluns\sg34 (100% processed), C:\asgluns\sg35 (100% processed), C:\asgluns\sg36 (100% processed), C:\asgluns\sg37 (100% processed), C:\asgluns\sg38 (100% processed), C:\asgluns\sg39 (100% processed), C:\asgluns\sg40 (100% processed), C:\asgluns\sg41 (100% processed), C:\asgluns\sg42 (100% processed), C:\asgluns\sg43 (100% processed), C:\asgluns\sg44 (100% processed), C:\asgluns\sg45 (100% processed), C:\asgluns\sg46 (100% processed), C:\asgluns\sg47 (100% processed), C:\asgluns\sg48 (100% processed), C:\asgluns\sg49 (100% processed), and C:\asgluns\sg50 (100% processed)
10/30/2009 3:30:44 AM -- Performance logging ends.
10/30/2009 3:30:44 AM --
C:\ESRP_HDP_1GB_RAID10\Stress\DBChecksum_2009_10_29_22_12_52.blg has 632 samples.
10/30/2009 3:37:14 AM --
C:\ESRP_HDP_1GB_RAID10\Stress\DBChecksum_2009_10_29_22_12_52.html is saved.
10/30/2009 3:37:14 AM -- verifying log checksums ...
10/30/2009 3:37:39 AM -- C:\alogluns\log1 (2 logs passed), C:\alogluns\log2 (2 logs passed), C:\alogluns\log3 (2 logs passed), C:\alogluns\log4 (2 logs passed), C:\alogluns\log5 (2 logs passed), C:\alogluns\log6 (2 logs passed), C:\alogluns\log7 (2 logs passed), C:\alogluns\log8 (2 logs passed), C:\alogluns\log9 (2 logs passed), C:\alogluns\log10 (2 logs passed), C:\alogluns\log11 (2 logs passed), C:\alogluns\log12 (2 logs passed), C:\alogluns\log13 (2 logs passed), C:\alogluns\log14 (2 logs passed), C:\alogluns\log15 (2 logs passed), C:\alogluns\log16 (2 logs passed), C:\alogluns\log17 (2 logs passed), C:\alogluns\log18 (2 logs passed), C:\alogluns\log19 (2 logs passed), C:\alogluns\log20 (2 logs passed), C:\alogluns\log21 (2 logs passed), C:\alogluns\log22 (2 logs passed), C:\alogluns\log23 (2 logs passed), C:\alogluns\log24 (2 logs passed), C:\alogluns\log25 (2 logs passed), C:\alogluns\log26 (2 logs passed), C:\alogluns\log27 (2 logs passed), C:\alogluns\log28 (2 logs passed), C:\alogluns\log29 (2 logs passed), C:\alogluns\log30 (2 logs passed), C:\alogluns\log31 (2 logs passed), C:\alogluns\log32 (2 logs passed), C:\alogluns\log33 (2 logs passed), C:\alogluns\log34 (2 logs passed), C:\alogluns\log35 (2 logs passed), C:\alogluns\log36 (2 logs passed), C:\alogluns\log37 (2 logs passed), C:\alogluns\log38 (2 logs passed), C:\alogluns\log39 (2 logs passed), C:\alogluns\log40 (2 logs passed), C:\alogluns\log41 (2 logs passed), C:\alogluns\log42 (3 logs passed), C:\alogluns\log43 (2 logs passed), C:\alogluns\log44 (2 logs passed), C:\alogluns\log45 (3 logs passed), C:\alogluns\log46 (2 logs passed), C:\alogluns\log47 (2 logs passed), C:\alogluns\log48 (2 logs passed), C:\alogluns\log49 (2 logs passed), and C:\alogluns\log50 (2 logs passed)
10/30/2009 3:37:39 AM --
C:\ESRP_HDP_1GB_RAID10\Stress\Stress_2009_10_28_21_10_56.blg has 5906 samples.
10/30/2009 3:37:39 AM -- Creating test report ...
10/30/2009 3:44:54 AM -- volume C:\asgluns\sg1 has 0.0110 for Avg. Disk sec/Read.

10/30/2009 3:44:58 AM -- volume C:\alogluns\log43 has 0.0000 for Avg. Disk sec/Read.
10/30/2009 3:44:58 AM -- volume C:\alogluns\log44 has 0.0007 for Avg. Disk sec/Write.
10/30/2009 3:44:58 AM -- volume C:\alogluns\log44 has 0.0000 for Avg. Disk sec/Read.
10/30/2009 3:44:58 AM -- volume C:\alogluns\log45 has 0.0007 for Avg. Disk sec/Write.
10/30/2009 3:44:58 AM -- volume C:\alogluns\log45 has 0.0000 for Avg. Disk sec/Read.
10/30/2009 3:44:58 AM -- volume C:\alogluns\log46 has 0.0007 for Avg. Disk sec/Write.
10/30/2009 3:44:58 AM -- volume C:\alogluns\log46 has 0.0000 for Avg. Disk sec/Read.
10/30/2009 3:44:59 AM -- volume C:\alogluns\log47 has 0.0007 for Avg. Disk sec/Write.
10/30/2009 3:44:59 AM -- volume C:\alogluns\log47 has 0.0000 for Avg. Disk sec/Read.
10/30/2009 3:44:59 AM -- volume C:\alogluns\log48 has 0.0007 for Avg. Disk sec/Write.
10/30/2009 3:44:59 AM -- volume C:\alogluns\log48 has 0.0000 for Avg. Disk sec/Read.
10/30/2009 3:44:59 AM -- volume C:\alogluns\log49 has 0.0007 for Avg. Disk sec/Write.
10/30/2009 3:44:59 AM -- volume C:\alogluns\log49 has 0.0000 for Avg. Disk sec/Read.
10/30/2009 3:44:59 AM -- volume C:\alogluns\log50 has 0.0007 for Avg. Disk sec/Write.
10/30/2009 3:44:59 AM -- volume C:\alogluns\log50 has 0.0000 for Avg. Disk sec/Read.
10/30/2009 3:44:59 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
10/30/2009 3:44:59 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.
10/30/2009 3:44:59 AM --
C:\ESRP_HDP_1GB_RAID10\Stress\Stress_2009_10_28_21_10_56.xml has 5693 samples queried.

Stress Test Database Checksums Result: SUN165

Checksum Statistics - All

Database	Seen pages	Bad pages	Correctable pages	Wrong page no pages	File length / seconds taken
C:\asgluns\sg1\Jetstress1.edb	9000514	0	0	0	70316 MBytes / 18706 seconds
C:\asgluns\sg2\Jetstress1.edb	9002306	0	0	0	70330 MBytes / 18548 seconds
C:\asgluns\sg3\Jetstress1.edb	9001282	0	0	0	70322 MBytes / 19059 seconds
C:\asgluns\sg4\Jetstress1.edb	8998978	0	0	0	70304 MBytes / 19070 seconds
C:\asgluns\sg5\Jetstress1.edb	9001538	0	0	0	70324 MBytes / 19005 seconds
C:\asgluns\sg6\Jetstress1.edb	8996930	0	0	0	70288 MBytes / 18561 seconds
C:\asgluns\sg7\Jetstress1.edb	8996418	0	0	0	70284 MBytes / 19052 seconds
C:\asgluns\sg8\Jetstress1.edb	8997698	0	0	0	70294 MBytes / 18585 seconds

					seconds
C:\asgluns\sg9\Jetstress1.edb	8998210	0	0	0	70298 MBytes / 19061 seconds
C:\asgluns\sg10\Jetstress1.edb	8997698	0	0	0	70294 MBytes / 18582 seconds
C:\asgluns\sg11\Jetstress1.edb	8995138	0	0	0	70274 MBytes / 19034 seconds
C:\asgluns\sg12\Jetstress1.edb	9000770	0	0	0	70318 MBytes / 18545 seconds
C:\asgluns\sg13\Jetstress1.edb	8996162	0	0	0	70282 MBytes / 19045 seconds
C:\asgluns\sg14\Jetstress1.edb	8994626	0	0	0	70270 MBytes / 18574 seconds
C:\asgluns\sg15\Jetstress1.edb	8996418	0	0	0	70284 MBytes / 19040 seconds
C:\asgluns\sg16\Jetstress1.edb	9001026	0	0	0	70320 MBytes / 18576 seconds
C:\asgluns\sg17\Jetstress1.edb	9000002	0	0	0	70312 MBytes / 19011 seconds
C:\asgluns\sg18\Jetstress1.edb	8998978	0	0	0	70304 MBytes / 18575 seconds
C:\asgluns\sg19\Jetstress1.edb	8998978	0	0	0	70304 MBytes / 18975 seconds
C:\asgluns\sg20\Jetstress1.edb	8997698	0	0	0	70294 MBytes / 18562 seconds
C:\asgluns\sg21\Jetstress1.edb	9000514	0	0	0	70316 MBytes / 19062 seconds
C:\asgluns\sg22\Jetstress1.edb	8998978	0	0	0	70304 MBytes / 18578 seconds
C:\asgluns\sg23\Jetstress1.edb	9004098	0	0	0	70344 MBytes / 18995 seconds
C:\asgluns\sg24\Jetstress1.edb	9003330	0	0	0	70338 MBytes / 18554 seconds
C:\asgluns\sg25\Jetstress1.edb	9000002	0	0	0	70312 MBytes / 18981 seconds
C:\asgluns\sg26\Jetstress1.edb	8995138	0	0	0	70274 MBytes / 18569 seconds
C:\asgluns\sg27\Jetstress1.edb	9001282	0	0	0	70322 MBytes / 19042 seconds
C:\asgluns\sg28\Jetstress1.edb	8996930	0	0	0	70288 MBytes / 18501 seconds
C:\asgluns\sg29\Jetstress1.edb	8999746	0	0	0	70310 MBytes / 19007 seconds
C:\asgluns\sg30\Jetstress1.edb	8998978	0	0	0	70304 MBytes / 18575 seconds

C:\asgluns\sg31\Jetstress1.edb	9000514	0	0	0	70316 MBytes / 18968 seconds
C:\asgluns\sg32\Jetstress1.edb	8996162	0	0	0	70282 MBytes / 18556 seconds
C:\asgluns\sg33\Jetstress1.edb	8998722	0	0	0	70302 MBytes / 19029 seconds
C:\asgluns\sg34\Jetstress1.edb	8995906	0	0	0	70280 MBytes / 18573 seconds
C:\asgluns\sg35\Jetstress1.edb	8998210	0	0	0	70298 MBytes / 19003 seconds
C:\asgluns\sg36\Jetstress1.edb	8998466	0	0	0	70300 MBytes / 18561 seconds
C:\asgluns\sg37\Jetstress1.edb	9001026	0	0	0	70320 MBytes / 19056 seconds
C:\asgluns\sg38\Jetstress1.edb	8998466	0	0	0	70300 MBytes / 18534 seconds
C:\asgluns\sg39\Jetstress1.edb	8998466	0	0	0	70300 MBytes / 19027 seconds
C:\asgluns\sg40\Jetstress1.edb	8998978	0	0	0	70304 MBytes / 18563 seconds
C:\asgluns\sg41\Jetstress1.edb	8994882	0	0	0	70272 MBytes / 19047 seconds
C:\asgluns\sg42\Jetstress1.edb	8994882	0	0	0	70272 MBytes / 18568 seconds
C:\asgluns\sg43\Jetstress1.edb	8997186	0	0	0	70290 MBytes / 19025 seconds
C:\asgluns\sg44\Jetstress1.edb	9000258	0	0	0	70314 MBytes / 18570 seconds
C:\asgluns\sg45\Jetstress1.edb	8998978	0	0	0	70304 MBytes / 18882 seconds
C:\asgluns\sg46\Jetstress1.edb	8998978	0	0	0	70304 MBytes / 18547 seconds
C:\asgluns\sg47\Jetstress1.edb	8996162	0	0	0	70282 MBytes / 19026 seconds
C:\asgluns\sg48\Jetstress1.edb	8998466	0	0	0	70300 MBytes / 18571 seconds
C:\asgluns\sg49\Jetstress1.edb	8999234	0	0	0	70306 MBytes / 19041 seconds
C:\asgluns\sg50\Jetstress1.edb	9002562	0	0	0	70332 MBytes / 18569 seconds
(Sum)	449936868	0	0	0	3515131 MBytes / 19070 seconds

Disk Subsystem Performance of Checksum

Logical Disk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec
C:\asgluns\sg1	0.276	0.000	57.963	0.000
C:\asgluns\sg2	0.266	0.000	60.571	0.000
C:\asgluns\sg3	0.268	0.001	58.914	0.000
C:\asgluns\sg4	0.269	0.000	58.742	0.000
C:\asgluns\sg5	0.266	0.000	59.143	0.000
C:\asgluns\sg6	0.265	0.000	60.442	0.000
C:\asgluns\sg7	0.267	0.000	58.991	0.000
C:\asgluns\sg8	0.271	0.000	60.022	0.000
C:\asgluns\sg9	0.273	0.001	58.876	0.000
C:\asgluns\sg10	0.266	0.000	60.295	0.000
C:\asgluns\sg11	0.267	0.000	59.019	0.000
C:\asgluns\sg12	0.265	0.000	60.592	0.000
C:\asgluns\sg13	0.268	0.000	58.963	0.000
C:\asgluns\sg14	0.267	0.000	60.410	0.000
C:\asgluns\sg15	0.267	0.001	58.972	0.000
C:\asgluns\sg16	0.266	0.000	60.433	0.000
C:\asgluns\sg17	0.266	0.000	59.111	0.000
C:\asgluns\sg18	0.266	0.001	60.421	0.000
C:\asgluns\sg19	0.266	0.000	59.236	0.000
C:\asgluns\sg20	0.267	0.000	60.451	0.000
C:\asgluns\sg21	0.268	0.000	58.845	0.000
C:\asgluns\sg22	0.266	0.001	60.353	0.000
C:\asgluns\sg23	0.266	0.001	59.236	0.000
C:\asgluns\sg24	0.265	0.000	60.545	0.000
C:\asgluns\sg25	0.266	0.000	59.229	0.000
C:\asgluns\sg26	0.266	0.000	60.473	0.000
C:\asgluns\sg27	0.267	0.000	59.060	0.000
C:\asgluns\sg28	0.264	0.000	60.774	0.000
C:\asgluns\sg29	0.266	0.001	59.141	0.000
C:\asgluns\sg30	0.266	0.001	60.374	0.000
C:\asgluns\sg31	0.266	0.000	59.277	0.000
C:\asgluns\sg32	0.265	0.000	60.477	0.000
C:\asgluns\sg33	0.266	0.000	59.064	0.000
C:\asgluns\sg34	0.265	0.000	60.421	0.000

C:\asgluns\sg35	0.266	0.000	59.149	0.000
C:\asgluns\sg36	0.265	0.001	60.554	0.000
C:\asgluns\sg37	0.269	0.001	58.793	0.000
C:\asgluns\sg38	0.264	0.001	60.645	0.000
C:\asgluns\sg39	0.266	0.000	59.071	0.000
C:\asgluns\sg40	0.265	0.000	60.516	0.000
C:\asgluns\sg41	0.268	0.001	58.955	0.000
C:\asgluns\sg42	0.268	0.000	60.408	0.000
C:\asgluns\sg43	0.267	0.000	59.073	0.000
C:\asgluns\sg44	0.268	0.000	60.247	0.000
C:\asgluns\sg45	0.267	0.000	59.518	0.000
C:\asgluns\sg46	0.266	0.000	60.548	0.000
C:\asgluns\sg47	0.267	0.000	59.060	0.000
C:\asgluns\sg48	0.272	0.001	60.082	0.000
C:\asgluns\sg49	0.267	0.000	59.023	0.000
C:\asgluns\sg50	0.270	0.000	60.084	0.000

Memory System Performance of Checksum

Counter	Average	Minimum	Maximum
% Processor Time	1.317	0.628	2.026
Available MBytes	30012.666	29951.000	30070.000
Free System Page Table Entries	33559224.191	33558750.000	33561998.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	156453823.190	156155904.000	156512256.000
Pool Paged Bytes	204810752.000	201469952.000	212492288.000

Test Log

```

10/28/2009 9:09:11 PM -- Jetstress testing begins ...
10/28/2009 9:09:11 PM -- Prepare testing begins ...
10/28/2009 9:10:02 PM -- Attaching databases ...
10/28/2009 9:10:02 PM -- Prepare testing ends.
10/28/2009 9:10:02 PM -- Dispatching transactions begins ...
10/28/2009 9:10:02 PM -- Database cache settings: (minimum: 1.6 GB, maximum: 12.5
GB)
10/28/2009 9:10:02 PM -- Database flush thresholds: (start: 128.0 MB, stop: 256.0
MB)
10/28/2009 9:10:56 PM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.1 seconds/read).
10/28/2009 9:10:56 PM -- Log write latency thresholds: (average: 0.01
seconds/write, maximum: 0.1 seconds/write).
10/28/2009 9:11:02 PM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
10/28/2009 9:11:02 PM -- Performance logging begins (interval: 15000 ms).
10/28/2009 9:11:02 PM -- Attaining prerequisites:

```

10/28/2009 10:04:53 PM -- \MSExchange Database(Jetstresswin)\Database Cache Size, Last: 12083090000.0 (lower bound: 12079600000.0, upper bound: none)
 10/29/2009 10:04:53 PM -- Performance logging ends.
 10/29/2009 10:12:41 PM -- JetInterop batch transaction stats: 59707, 59517, 59467, 59326, 59345, 58944, 59392, 59189, 59016, 59287, 58956, 59384, 59133, 58847, 58834, 59554, 59363, 59295, 59293, 59201, 59251, 59142, 59595, 59361, 59784, 59166, 59578, 58797, 59609, 58817, 59742, 59012, 59357, 59269, 59096, 59426, 59737, 59122, 59481, 59313, 59141, 58782, 59247, 60003, 59751, 59742, 58949, 59385, 58893, and 59351.
 10/29/2009 10:12:41 PM -- Dispatching transactions ends.
 10/29/2009 10:12:41 PM -- Shutting down databases ...
 10/29/2009 10:12:52 PM -- Instance5432.1 (complete), Instance5432.2 (complete), Instance5432.3 (complete), Instance5432.4 (complete), Instance5432.5 (complete), Instance5432.6 (complete), Instance5432.7 (complete), Instance5432.8 (complete), Instance5432.9 (complete), Instance5432.10 (complete), Instance5432.11 (complete), Instance5432.12 (complete), Instance5432.13 (complete), Instance5432.14 (complete), Instance5432.15 (complete), Instance5432.16 (complete), Instance5432.17 (complete), Instance5432.18 (complete), Instance5432.19 (complete), Instance5432.20 (complete), Instance5432.21 (complete), Instance5432.22 (complete), Instance5432.23 (complete), Instance5432.24 (complete), Instance5432.25 (complete), Instance5432.26 (complete), Instance5432.27 (complete), Instance5432.28 (complete), Instance5432.29 (complete), Instance5432.30 (complete), Instance5432.31 (complete), Instance5432.32 (complete), Instance5432.33 (complete), Instance5432.34 (complete), Instance5432.35 (complete), Instance5432.36 (complete), Instance5432.37 (complete), Instance5432.38 (complete), Instance5432.39 (complete), Instance5432.40 (complete), Instance5432.41 (complete), Instance5432.42 (complete), Instance5432.43 (complete), Instance5432.44 (complete), Instance5432.45 (complete), Instance5432.46 (complete), Instance5432.47 (complete), Instance5432.48 (complete), Instance5432.49 (complete), and Instance5432.50 (complete)
 10/29/2009 10:12:53 PM -- Performance logging begins (interval: 30000 ms).
 10/29/2009 10:12:53 PM -- Verifying database checksums ...
 10/30/2009 3:30:44 AM -- C:\asgluns\sg1 (100% processed), C:\asgluns\sg2 (100% processed), C:\asgluns\sg3 (100% processed), C:\asgluns\sg4 (100% processed), C:\asgluns\sg5 (100% processed), C:\asgluns\sg6 (100% processed), C:\asgluns\sg7 (100% processed), C:\asgluns\sg8 (100% processed), C:\asgluns\sg9 (100% processed), C:\asgluns\sg10 (100% processed), C:\asgluns\sg11 (100% processed), C:\asgluns\sg12 (100% processed), C:\asgluns\sg13 (100% processed), C:\asgluns\sg14 (100% processed), C:\asgluns\sg15 (100% processed), C:\asgluns\sg16 (100% processed), C:\asgluns\sg17 (100% processed), C:\asgluns\sg18 (100% processed), C:\asgluns\sg19 (100% processed), C:\asgluns\sg20 (100% processed), C:\asgluns\sg21 (100% processed), C:\asgluns\sg22 (100% processed), C:\asgluns\sg23 (100% processed), C:\asgluns\sg24 (100% processed), C:\asgluns\sg25 (100% processed), C:\asgluns\sg26 (100% processed), C:\asgluns\sg27 (100% processed), C:\asgluns\sg28 (100% processed), C:\asgluns\sg29 (100% processed), C:\asgluns\sg30 (100% processed), C:\asgluns\sg31 (100% processed), C:\asgluns\sg32 (100% processed), C:\asgluns\sg33 (100% processed), C:\asgluns\sg34 (100% processed), C:\asgluns\sg35 (100% processed), C:\asgluns\sg36 (100% processed), C:\asgluns\sg37 (100% processed), C:\asgluns\sg38 (100% processed), C:\asgluns\sg39 (100% processed), C:\asgluns\sg40 (100% processed), C:\asgluns\sg41 (100% processed), C:\asgluns\sg42 (100% processed), C:\asgluns\sg43 (100% processed), C:\asgluns\sg44 (100% processed), C:\asgluns\sg45 (100% processed), C:\asgluns\sg46 (100% processed), C:\asgluns\sg47 (100% processed), C:\asgluns\sg48 (100% processed), C:\asgluns\sg49 (100% processed), and C:\asgluns\sg50 (100% processed)
 10/30/2009 3:30:44 AM -- Performance logging ends.
 10/30/2009 3:30:44 AM --
 C:\ESRP_HDP_1GB_RAID10\stress\DBChecksum_2009_10_29_22_12_52.b1g has 632 samples.

Streaming Backup Test Result: SUN165

Streaming Backup Statistics - All

<i>Database Instance</i>	<i>Database Size (MBytes)</i>	<i>Elapsed Backup Time</i>	<i>MBytes Transferred/sec</i>
Instance6848.1	70314.52	05:02:38	3.87
Instance6848.2	70328.52	04:35:18	4.26
Instance6848.3	70320.52	04:24:25	4.43
Instance6848.4	70302.52	04:19:25	4.52
Instance6848.5	70322.52	04:20:01	4.51
Instance6848.6	70286.52	04:10:17	4.68
Instance6848.7	70282.52	04:28:51	4.36
Instance6848.8	70292.52	04:52:04	4.01
Instance6848.9	70296.52	04:15:49	4.58
Instance6848.10	70292.52	04:55:22	3.97
Instance6848.11	70272.52	04:24:38	4.43
Instance6848.12	70316.52	04:20:36	4.50
Instance6848.13	70280.52	04:26:25	4.40
Instance6848.14	70268.52	04:39:39	4.19
Instance6848.15	70282.52	04:02:13	4.84
Instance6848.16	70318.52	05:00:23	3.90
Instance6848.17	70310.52	04:21:22	4.48
Instance6848.18	70302.52	04:55:57	3.96
Instance6848.19	70302.52	04:18:29	4.53
Instance6848.20	70292.52	04:26:54	4.39
Instance6848.21	70314.52	04:12:59	4.63
Instance6848.22	70302.52	04:39:31	4.19
Instance6848.23	70342.52	04:21:51	4.48
Instance6848.24	70336.52	04:46:21	4.09
Instance6848.25	70310.52	04:24:20	4.43
Instance6848.26	70272.52	04:39:40	4.19
Instance6848.27	70320.52	04:30:42	4.33
Instance6848.28	70286.52	04:20:21	4.50
Instance6848.29	70308.52	04:06:11	4.76
Instance6848.30	70302.52	05:02:32	3.87
Instance6848.31	70314.52	04:24:03	4.44
Instance6848.32	70280.52	04:45:32	4.10
Instance6848.33	70300.52	04:10:32	4.68
Instance6848.34	70278.52	04:18:54	4.52

Instance6848.35	70296.52	04:19:57	4.51
Instance6848.36	70298.52	04:59:01	3.92
Instance6848.37	70318.52	04:25:57	4.41
Instance6848.38	70298.52	04:40:46	4.17
Instance6848.39	70298.52	04:29:54	4.34
Instance6848.40	70302.52	04:41:30	4.16
Instance6848.41	70270.52	04:30:30	4.33
Instance6848.42	70270.52	04:24:50	4.42
Instance6848.43	70288.52	04:23:35	4.44
Instance6848.44	70312.52	04:54:00	3.99
Instance6848.45	70302.52	04:29:48	4.34
Instance6848.46	70302.52	04:39:50	4.19
Instance6848.47	70280.52	03:54:40	4.99
Instance6848.48	70298.52	04:33:56	4.28
Instance6848.49	70304.52	04:30:52	4.33
Instance6848.50	70330.52	04:51:06	4.03

Jetstress System Parameters

Thread count	2 (per storage group)
Log buffers	9000
Minimum database cache	1600.0 MB
Maximum database cache	12800.0 MB
Insert operations	40%
Delete operations	30%
Replace operations	5%
Read operations	25%
Lazy commits	55%

Disk Subsystem Performance

Logical Disk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
Database (C:\asgluns\sg1)	0.161	0.000	30.679	0.000	(n/a)
Database (C:\asgluns\sg2)	0.090	0.000	31.065	0.002	(n/a)
Database (C:\asgluns\sg3)	0.085	0.000	31.005	0.002	(n/a)
Database	0.074	0.000	30.999	0.002	(n/a)

(C:\asgluns\sg4)					
Database (C:\asgluns\sg5)	0.076	0.000	31.005	0.002	(n/a)
Database (C:\asgluns\sg6)	0.067	0.000	31.045	0.002	(n/a)
Database (C:\asgluns\sg7)	0.098	0.000	30.995	0.002	(n/a)
Database (C:\asgluns\sg8)	0.110	0.000	30.993	0.002	(n/a)
Database (C:\asgluns\sg9)	0.065	0.000	30.987	0.002	(n/a)
Database (C:\asgluns\sg10)	0.115	0.000	31.006	0.002	(n/a)
Database (C:\asgluns\sg11)	0.082	0.000	30.999	0.002	(n/a)
Database (C:\asgluns\sg12)	0.079	0.000	31.006	0.002	(n/a)
Database (C:\asgluns\sg13)	0.081	0.000	30.992	0.002	(n/a)
Database (C:\asgluns\sg14)	0.092	0.000	30.977	0.002	(n/a)
Database (C:\asgluns\sg15)	0.057	0.000	30.988	0.002	(n/a)
Database (C:\asgluns\sg16)	0.147	0.000	31.063	0.001	(n/a)
Database (C:\asgluns\sg17)	0.071	0.000	31.002	0.002	(n/a)
Database (C:\asgluns\sg18)	0.128	0.000	30.996	0.002	(n/a)
Database (C:\asgluns\sg19)	0.072	0.000	31.053	0.002	(n/a)
Database (C:\asgluns\sg20)	0.083	0.000	31.003	0.002	(n/a)
Database (C:\asgluns\sg21)	0.066	0.000	31.057	0.002	(n/a)
Database (C:\asgluns\sg22)	0.091	0.000	30.996	0.002	(n/a)
Database (C:\asgluns\sg23)	0.075	0.000	31.013	0.002	(n/a)
Database (C:\asgluns\sg24)	0.101	0.000	31.051	0.002	(n/a)
Database (C:\asgluns\sg25)	0.079	0.000	31.057	0.002	(n/a)
Database (C:\asgluns\sg26)	0.094	0.000	30.988	0.002	(n/a)

Database (C:\asgluns\sg27)	0.097	0.000	30.993	0.002	(n/a)
Database (C:\asgluns\sg28)	0.074	0.000	31.001	0.002	(n/a)
Database (C:\asgluns\sg29)	0.064	0.000	31.004	0.002	(n/a)
Database (C:\asgluns\sg30)	0.160	0.000	30.709	0.000	(n/a)
Database (C:\asgluns\sg31)	0.085	0.000	30.996	0.002	(n/a)
Database (C:\asgluns\sg32)	0.105	0.000	31.044	0.002	(n/a)
Database (C:\asgluns\sg33)	0.063	0.000	30.995	0.002	(n/a)
Database (C:\asgluns\sg34)	0.070	0.000	30.986	0.002	(n/a)
Database (C:\asgluns\sg35)	0.075	0.000	30.986	0.002	(n/a)
Database (C:\asgluns\sg36)	0.136	0.000	30.997	0.002	(n/a)
Database (C:\asgluns\sg37)	0.089	0.000	31.011	0.002	(n/a)
Database (C:\asgluns\sg38)	0.096	0.000	30.999	0.002	(n/a)
Database (C:\asgluns\sg39)	0.098	0.000	31.000	0.001	(n/a)
Database (C:\asgluns\sg40)	0.093	0.000	31.004	0.002	(n/a)
Database (C:\asgluns\sg41)	0.084	0.000	30.980	0.002	(n/a)
Database (C:\asgluns\sg42)	0.079	0.000	30.985	0.002	(n/a)
Database (C:\asgluns\sg43)	0.078	0.000	30.984	0.002	(n/a)
Database (C:\asgluns\sg44)	0.117	0.000	30.999	0.002	(n/a)
Database (C:\asgluns\sg45)	0.086	0.000	30.996	0.002	(n/a)
Database (C:\asgluns\sg46)	0.096	0.000	31.004	0.002	(n/a)
Database (C:\asgluns\sg47)	0.051	0.000	30.988	0.002	(n/a)
Database (C:\asgluns\sg48)	0.087	0.000	31.001	0.002	(n/a)
Database	0.106	0.000	31.001	0.002	(n/a)

(C:\asgluns\sg49)					
Database (C:\asgluns\sg50)	0.111	0.000	31.015	0.002	(n/a)
Log (C:\alogluns\log1)	0.000	0.000	0.000	0.000	0.000
Log (C:\alogluns\log2)	0.000	0.000	0.000	0.002	18.308
Log (C:\alogluns\log3)	0.000	0.000	0.000	0.002	17.669
Log (C:\alogluns\log4)	0.000	0.000	0.000	0.002	17.493
Log (C:\alogluns\log5)	0.000	0.000	0.000	0.002	17.493
Log (C:\alogluns\log6)	0.000	0.000	0.000	0.002	18.204
Log (C:\alogluns\log7)	0.000	0.000	0.000	0.002	25.031
Log (C:\alogluns\log8)	0.000	0.000	0.000	0.002	10.842
Log (C:\alogluns\log9)	0.000	0.000	0.000	0.002	17.825
Log (C:\alogluns\log10)	0.000	0.000	0.000	0.002	11.662
Log (C:\alogluns\log11)	0.000	0.000	0.000	0.002	11.883
Log (C:\alogluns\log12)	0.000	0.000	0.000	0.002	11.883
Log (C:\alogluns\log13)	0.000	0.000	0.000	0.002	17.669
Log (C:\alogluns\log14)	0.000	0.000	0.000	0.002	17.067
Log (C:\alogluns\log15)	0.000	0.000	0.000	0.002	17.965
Log (C:\alogluns\log16)	0.000	0.000	0.000	0.001	4.989
Log (C:\alogluns\log17)	0.000	0.000	0.000	0.002	17.825
Log (C:\alogluns\log18)	0.000	0.000	0.000	0.002	18.308
Log (C:\alogluns\log19)	0.000	0.000	0.000	0.002	23.324
Log (C:\alogluns\log20)	0.000	0.000	0.000	0.002	11.378
Log (C:\alogluns\log21)	0.000	0.000	0.000	0.002	16.498
Log (C:\alogluns\log22)	0.000	0.000	0.000	0.002	17.233
Log (C:\alogluns\log23)	0.000	0.000	0.000	0.002	10.581
Log (C:\alogluns\log24)	0.000	0.000	0.000	0.002	11.662
Log (C:\alogluns\log25)	0.000	0.000	0.000	0.002	18.204
Log (C:\alogluns\log26)	0.000	0.000	0.000	0.002	16.252
Log (C:\alogluns\log27)	0.000	0.000	0.000	0.002	11.662
Log (C:\alogluns\log28)	0.000	0.000	0.000	0.002	17.965
Log (C:\alogluns\log29)	0.000	0.000	0.000	0.002	11.662
Log (C:\alogluns\log30)	0.000	0.000	0.000	0.000	0.000
Log (C:\alogluns\log31)	0.000	0.000	0.000	0.002	16.281
Log (C:\alogluns\log32)	0.000	0.000	0.000	0.002	17.825
Log (C:\alogluns\log33)	0.000	0.000	0.000	0.002	11.662
Log (C:\alogluns\log34)	0.000	0.000	0.000	0.002	24.496

Log (C:\alogluns\log35)	0.000	0.000	0.000	0.001	10.842
Log (C:\alogluns\log36)	0.000	0.000	0.000	0.002	25.031
Log (C:\alogluns\log37)	0.000	0.000	0.000	0.002	17.669
Log (C:\alogluns\log38)	0.000	0.000	0.000	0.002	11.662
Log (C:\alogluns\log39)	0.000	0.000	0.000	0.002	10.733
Log (C:\alogluns\log40)	0.000	0.000	0.000	0.002	17.120
Log (C:\alogluns\log41)	0.000	0.000	0.000	0.002	17.120
Log (C:\alogluns\log42)	0.000	0.000	0.000	0.002	18.091
Log (C:\alogluns\log43)	0.000	0.000	0.000	0.002	11.662
Log (C:\alogluns\log44)	0.000	0.000	0.000	0.002	17.965
Log (C:\alogluns\log45)	0.000	0.000	0.000	0.002	11.378
Log (C:\alogluns\log46)	0.000	0.000	0.000	0.002	11.481
Log (C:\alogluns\log47)	0.000	0.000	0.000	0.002	17.669
Log (C:\alogluns\log48)	0.000	0.000	0.000	0.002	17.167
Log (C:\alogluns\log49)	0.000	0.000	0.000	0.002	18.091
Log (C:\alogluns\log50)	0.000	0.000	0.000	0.002	17.034

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	1.003	0.330	1.620
Available MBytes	30035.800	29959.000	30136.000
Free System Page Table Entries	33561844.384	33561424.000	33562189.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	155714660.526	155705344.000	155729920.000
Pool Paged Bytes	216144366.110	215445504.000	216354816.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

11/1/2009 9:14:54 PM -- Jetstress testing begins ...
 11/1/2009 9:14:54 PM -- Prepare testing begins ...
 11/1/2009 9:15:45 PM -- Attaching databases ...
 11/1/2009 9:15:45 PM -- Prepare testing ends.
 11/1/2009 9:16:41 PM -- Performance logging begins (interval: 30000 ms).
 11/1/2009 9:16:41 PM -- Streaming backup databases ...
 11/2/2009 2:19:20 AM -- Performance logging ends.
 11/2/2009 2:19:20 AM -- Instance6848.1 (100% processed), Instance6848.2 (100% processed), Instance6848.3 (100% processed), Instance6848.4 (100% processed), Instance6848.5 (100% processed), Instance6848.6 (100% processed), Instance6848.7 (100% processed), Instance6848.8 (100% processed), Instance6848.9 (100% processed), Instance6848.10 (100% processed), Instance6848.11 (100% processed), Instance6848.12 (100% processed), Instance6848.13 (100% processed), Instance6848.14 (100% processed), Instance6848.15 (100% processed), Instance6848.16 (100% processed), Instance6848.17 (100% processed), Instance6848.18 (100% processed), Instance6848.19 (100% processed),

Instance6848.20 (100% processed), Instance6848.21 (100% processed),
 Instance6848.22 (100% processed), Instance6848.23 (100% processed),
 Instance6848.24 (100% processed), Instance6848.25 (100% processed),
 Instance6848.26 (100% processed), Instance6848.27 (100% processed),
 Instance6848.28 (100% processed), Instance6848.29 (100% processed),
 Instance6848.30 (100% processed), Instance6848.31 (100% processed),
 Instance6848.32 (100% processed), Instance6848.33 (100% processed),
 Instance6848.34 (100% processed), Instance6848.35 (100% processed),
 Instance6848.36 (100% processed), Instance6848.37 (100% processed),
 Instance6848.38 (100% processed), Instance6848.39 (100% processed),
 Instance6848.40 (100% processed), Instance6848.41 (100% processed),
 Instance6848.42 (100% processed), Instance6848.43 (100% processed),
 Instance6848.44 (100% processed), Instance6848.45 (100% processed),
 Instance6848.46 (100% processed), Instance6848.47 (100% processed),
 Instance6848.48 (100% processed), Instance6848.49 (100% processed), and
 Instance6848.50 (100% processed)
 11/2/2009 2:19:20 AM --
 C:\ESRP_HDP_1GB_RAID10\StreamingBackup\StreamingBackup_2009_11_1_21_15_45.blg has
 601 samples.
 11/2/2009 2:19:20 AM -- Creating test report ...

Soft Recovery Test Result: SUN165

Soft-Recovery Statistics - All

<i>Database Instance</i>	<i>Log files replayed</i>	<i>Elapsed seconds</i>
Instance6848.1	508	2506.1716651
Instance6848.2	511	2466.1106083
Instance6848.3	510	2495.5635971
Instance6848.4	520	2340.4050025
Instance6848.5	501	2490.7899665
Instance6848.6	508	2436.1428162
Instance6848.7	510	2499.8068243
Instance6848.8	514	2448.8724978
Instance6848.9	501	2493.4419835
Instance6848.10	519	2470.0886338
Instance6848.11	509	2489.9943614
Instance6848.12	500	2420.2307142
Instance6848.13	517	2502.1936396
Instance6848.14	502	2422.6175295
Instance6848.15	512	2495.0331937
Instance6848.16	509	2435.3472111
Instance6848.17	513	2492.3811767
Instance6848.18	515	2458.1545573
Instance6848.19	515	2344.6482297
Instance6848.20	501	2492.9115801
Instance6848.21	510	2354.1954909
Instance6848.22	505	2508.2932787

Instance6848.23	512	2347.035045
Instance6848.24	510	2505.9064634
Instance6848.25	523	2377.2680388
Instance6848.26	508	2502.1936396
Instance6848.27	517	2335.1009685
Instance6848.28	500	2492.3811767
Instance6848.29	512	2330.8577413
Instance6848.30	500	2488.9335546
Instance6848.31	511	2355.7867011
Instance6848.32	513	2505.9064634
Instance6848.33	508	2327.1449175
Instance6848.34	508	2512.8017076
Instance6848.35	511	2358.1735164
Instance6848.36	504	2509.3540855
Instance6848.37	507	2292.4034948
Instance6848.38	516	2512.2713042
Instance6848.39	513	2335.1009685
Instance6848.40	508	2505.6412617
Instance6848.41	509	2330.3273379
Instance6848.42	519	2507.4976736
Instance6848.43	512	2330.8577413
Instance6848.44	504	2499.8068243
Instance6848.45	505	2406.1750241
Instance6848.46	514	2516.7797331
Instance6848.47	512	2287.6298642
Instance6848.48	504	2501.6632362
Instance6848.49	508	2246.258399
Instance6848.50	514	2508.5584804

Disk Subsystem Performance

<i>Logical Disk</i>	<i>Avg. Disk sec/Read</i>	<i>Avg. Disk sec/Write</i>	<i>Disk Reads/sec</i>	<i>Disk Writes/sec</i>	<i>Avg. Disk Bytes/Write</i>
Database (C:\asgluns\sg1)	0.133	0.023	103.702	2.316	(n/a)
Database (C:\asgluns\sg2)	0.141	0.021	107.013	2.326	(n/a)
Database (C:\asgluns\sg3)	0.087	0.011	104.735	2.318	(n/a)

Database (C:\asgluns\sg4)	0.077	0.010	106.540	2.330	(n/a)
Database (C:\asgluns\sg5)	0.090	0.010	105.364	2.284	(n/a)
Database (C:\asgluns\sg6)	0.145	0.021	104.529	2.312	(n/a)
Database (C:\asgluns\sg7)	0.088	0.010	105.232	2.315	(n/a)
Database (C:\asgluns\sg8)	0.136	0.020	104.679	2.328	(n/a)
Database (C:\asgluns\sg9)	0.093	0.010	104.665	2.287	(n/a)
Database (C:\asgluns\sg10)	0.138	0.020	106.779	2.345	(n/a)
Database (C:\asgluns\sg11)	0.089	0.010	103.986	2.317	(n/a)
Database (C:\asgluns\sg12)	0.137	0.020	102.614	2.282	(n/a)
Database (C:\asgluns\sg13)	0.083	0.009	106.839	2.352	(n/a)
Database (C:\asgluns\sg14)	0.137	0.020	104.839	2.268	(n/a)
Database (C:\asgluns\sg15)	0.088	0.010	105.396	2.318	(n/a)
Database (C:\asgluns\sg16)	0.139	0.020	105.228	2.304	(n/a)
Database (C:\asgluns\sg17)	0.096	0.010	106.250	2.331	(n/a)
Database (C:\asgluns\sg18)	0.141	0.021	106.087	2.341	(n/a)
Database (C:\asgluns\sg19)	0.074	0.010	105.759	2.313	(n/a)
Database (C:\asgluns\sg20)	0.124	0.021	103.829	2.294	(n/a)
Database (C:\asgluns\sg21)	0.073	0.010	105.855	2.293	(n/a)
Database (C:\asgluns\sg22)	0.141	0.020	103.940	2.299	(n/a)
Database (C:\asgluns\sg23)	0.083	0.010	105.973	2.302	(n/a)
Database (C:\asgluns\sg24)	0.131	0.020	106.585	2.325	(n/a)
Database (C:\asgluns\sg25)	0.076	0.010	106.657	2.346	(n/a)
Database	0.119	0.020	104.061	2.316	(n/a)

(C:\asgluns\sg26)					
Database (C:\asgluns\sg27)	0.074	0.010	105.761	2.324	(n/a)
Database (C:\asgluns\sg28)	0.130	0.020	103.837	2.282	(n/a)
Database (C:\asgluns\sg29)	0.074	0.010	105.018	2.303	(n/a)
Database (C:\asgluns\sg30)	0.127	0.021	104.279	2.277	(n/a)
Database (C:\asgluns\sg31)	0.079	0.010	105.359	2.302	(n/a)
Database (C:\asgluns\sg32)	0.128	0.021	105.492	2.333	(n/a)
Database (C:\asgluns\sg33)	0.076	0.010	104.040	2.289	(n/a)
Database (C:\asgluns\sg34)	0.126	0.022	104.294	2.312	(n/a)
Database (C:\asgluns\sg35)	0.081	0.010	105.215	2.301	(n/a)
Database (C:\asgluns\sg36)	0.129	0.021	104.999	2.302	(n/a)
Database (C:\asgluns\sg37)	0.077	0.010	102.949	2.276	(n/a)
Database (C:\asgluns\sg38)	0.123	0.020	105.695	2.343	(n/a)
Database (C:\asgluns\sg39)	0.080	0.010	105.562	2.308	(n/a)
Database (C:\asgluns\sg40)	0.127	0.020	104.882	2.315	(n/a)
Database (C:\asgluns\sg41)	0.080	0.010	106.372	2.282	(n/a)
Database (C:\asgluns\sg42)	0.120	0.021	104.975	2.354	(n/a)
Database (C:\asgluns\sg43)	0.074	0.010	105.115	2.297	(n/a)
Database (C:\asgluns\sg44)	0.124	0.021	103.914	2.301	(n/a)
Database (C:\asgluns\sg45)	0.131	0.019	104.169	2.291	(n/a)
Database (C:\asgluns\sg46)	0.125	0.021	105.463	2.307	(n/a)
Database (C:\asgluns\sg47)	0.072	0.010	105.680	2.294	(n/a)
Database (C:\asgluns\sg48)	0.130	0.020	105.267	2.297	(n/a)

Database (C:\asgluns\sg49)	0.075	0.010	103.868	2.253	(n/a)
Database (C:\asgluns\sg50)	0.124	0.020	105.450	2.333	(n/a)
Log (C:\alogluns\log1)	0.048	0.000	6.683	0.013	32.941
Log (C:\alogluns\log2)	0.039	0.000	6.720	0.013	46.300
Log (C:\alogluns\log3)	0.049	0.000	6.707	0.014	47.068
Log (C:\alogluns\log4)	0.028	0.000	6.835	0.015	43.874
Log (C:\alogluns\log5)	0.048	0.000	6.588	0.016	53.825
Log (C:\alogluns\log6)	0.037	0.000	6.680	0.016	57.760
Log (C:\alogluns\log7)	0.048	0.000	6.708	0.014	39.259
Log (C:\alogluns\log8)	0.036	0.000	6.759	0.016	57.717
Log (C:\alogluns\log9)	0.048	0.000	6.588	0.014	49.336
Log (C:\alogluns\log10)	0.038	0.000	6.826	0.016	60.699
Log (C:\alogluns\log11)	0.049	0.000	6.684	0.015	46.571
Log (C:\alogluns\log12)	0.036	0.000	6.573	0.016	53.145
Log (C:\alogluns\log13)	0.048	0.000	6.801	0.013	40.516
Log (C:\alogluns\log14)	0.037	0.000	6.594	0.016	53.571
Log (C:\alogluns\log15)	0.046	0.000	6.733	0.014	46.323
Log (C:\alogluns\log16)	0.036	0.000	6.694	0.016	50.305
Log (C:\alogluns\log17)	0.048	0.000	6.738	0.016	54.222
Log (C:\alogluns\log18)	0.036	0.000	6.773	0.016	60.202
Log (C:\alogluns\log19)	0.029	0.000	6.771	0.016	53.564
Log (C:\alogluns\log20)	0.048	0.000	6.585	0.013	46.696
Log (C:\alogluns\log21)	0.031	0.000	6.705	0.017	55.978
Log (C:\alogluns\log22)	0.050	0.000	6.643	0.011	25.210
Log (C:\alogluns\log23)	0.029	0.000	6.731	0.016	60.741
Log (C:\alogluns\log24)	0.050	0.000	6.710	0.013	36.743
Log (C:\alogluns\log25)	0.030	0.000	6.874	0.013	34.786
Log (C:\alogluns\log26)	0.047	0.000	6.682	0.013	27.451
Log (C:\alogluns\log27)	0.029	0.000	6.793	0.017	60.110
Log (C:\alogluns\log28)	0.051	0.000	6.572	0.015	47.406
Log (C:\alogluns\log29)	0.030	0.000	6.731	0.016	40.835
Log (C:\alogluns\log30)	0.048	0.000	6.571	0.014	55.871
Log (C:\alogluns\log31)	0.031	0.000	6.718	0.016	60.386
Log (C:\alogluns\log32)	0.049	0.000	6.743	0.012	23.113
Log (C:\alogluns\log33)	0.028	0.000	6.678	0.016	61.380
Log (C:\alogluns\log34)	0.048	0.000	6.682	0.009	15.675

Log (C:\alogluns\log35)	0.031	0.000	6.715	0.015	50.802
Log (C:\alogluns\log36)	0.050	0.000	6.620	0.012	23.037
Log (C:\alogluns\log37)	0.029	0.000	6.658	0.016	48.914
Log (C:\alogluns\log38)	0.050	0.000	6.786	0.010	18.482
Log (C:\alogluns\log39)	0.029	0.000	6.744	0.016	60.706
Log (C:\alogluns\log40)	0.049	0.000	6.682	0.012	22.854
Log (C:\alogluns\log41)	0.030	0.000	6.688	0.016	60.712
Log (C:\alogluns\log42)	0.047	0.000	6.821	0.012	18.813
Log (C:\alogluns\log43)	0.030	0.000	6.728	0.016	60.855
Log (C:\alogluns\log44)	0.049	0.000	6.629	0.013	32.444
Log (C:\alogluns\log45)	0.036	0.000	6.633	0.015	52.748
Log (C:\alogluns\log46)	0.046	0.000	6.738	0.004	29.604
Log (C:\alogluns\log47)	0.028	0.000	6.730	0.015	50.252
Log (C:\alogluns\log48)	0.051	0.000	6.628	0.013	39.154
Log (C:\alogluns\log49)	0.028	0.000	6.647	0.016	55.576
Log (C:\alogluns\log50)	0.046	0.000	6.761	0.013	39.154

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	2.674	1.339	13.111
Available MBytes	18087.206	16390.000	29496.000
Free System Page Table Entries	33561663.586	33561287.000	33561799.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	180013001.568	156995584.000	180854784.000
Pool Paged Bytes	219525834.419	218644480.000	219688960.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

```

11/2/2009 3:57:51 AM -- Jetstress testing begins ...
11/2/2009 3:57:51 AM -- Prepare testing begins ...
11/2/2009 3:58:42 AM -- Attaching databases ...
11/2/2009 3:58:42 AM -- Prepare testing ends.
11/2/2009 3:58:42 AM -- Dispatching transactions begins ...
11/2/2009 3:58:42 AM -- Database cache settings: (minimum: 1.6 GB, maximum: 12.5
GB)
11/2/2009 3:58:42 AM -- Database flush thresholds: (start: 128.0 MB, stop: 256.0
MB)
11/2/2009 3:59:36 AM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.05 seconds/read).
11/2/2009 3:59:36 AM -- Log write latency thresholds: (average: 0.01
seconds/write, maximum: 0.05 seconds/write).
11/2/2009 3:59:42 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
11/2/2009 3:59:42 AM -- Performance logging begins (interval: 15000 ms).

```

11/2/2009 3:59:42 AM -- Generating log files ...
 11/2/2009 9:52:01 AM -- C:\alogluns\log1 (101.8% generated), C:\alogluns\log2 (102.4% generated), C:\alogluns\log3 (102.2% generated), C:\alogluns\log4 (104.2% generated), C:\alogluns\log5 (100.4% generated), C:\alogluns\log6 (101.8% generated), C:\alogluns\log7 (102.2% generated), C:\alogluns\log8 (103.0% generated), C:\alogluns\log9 (100.4% generated), C:\alogluns\log10 (104.0% generated), C:\alogluns\log11 (102.0% generated), C:\alogluns\log12 (100.2% generated), C:\alogluns\log13 (103.6% generated), C:\alogluns\log14 (100.6% generated), C:\alogluns\log15 (102.6% generated), C:\alogluns\log16 (102.0% generated), C:\alogluns\log17 (102.8% generated), C:\alogluns\log18 (103.2% generated), C:\alogluns\log19 (103.2% generated), C:\alogluns\log20 (100.4% generated), C:\alogluns\log21 (102.2% generated), C:\alogluns\log22 (101.2% generated), C:\alogluns\log23 (102.6% generated), C:\alogluns\log24 (102.2% generated), C:\alogluns\log25 (104.8% generated), C:\alogluns\log26 (101.8% generated), C:\alogluns\log27 (103.6% generated), C:\alogluns\log28 (100.2% generated), C:\alogluns\log29 (102.6% generated), C:\alogluns\log30 (100.2% generated), C:\alogluns\log31 (102.4% generated), C:\alogluns\log32 (102.8% generated), C:\alogluns\log33 (101.8% generated), C:\alogluns\log34 (101.8% generated), C:\alogluns\log35 (102.4% generated), C:\alogluns\log36 (101.0% generated), C:\alogluns\log37 (101.6% generated), C:\alogluns\log38 (103.4% generated), C:\alogluns\log39 (102.8% generated), C:\alogluns\log40 (101.8% generated), C:\alogluns\log41 (102.0% generated), C:\alogluns\log42 (104.0% generated), C:\alogluns\log43 (102.6% generated), C:\alogluns\log44 (101.0% generated), C:\alogluns\log45 (101.2% generated), C:\alogluns\log46 (103.0% generated), C:\alogluns\log47 (102.6% generated), C:\alogluns\log48 (101.0% generated), C:\alogluns\log49 (101.8% generated), and C:\alogluns\log50 (103.0% generated)
 11/2/2009 9:52:01 AM -- Performance logging ends.
 11/2/2009 9:52:01 AM -- JetInterop batch transaction stats: 13220, 13359, 13326, 13647, 13180, 13233, 13397, 13321, 13215, 13526, 13198, 13052, 13501, 13212, 13323, 13307, 13457, 13323, 13502, 13248, 13349, 13249, 13399, 13525, 13614, 13166, 13451, 13248, 13367, 13289, 13409, 13469, 13255, 13229, 13352, 13407, 13198, 13469, 13416, 13326, 13550, 13487, 13409, 13340, 13275, 13494, 13438, 13318, 13504, and 13293.
 11/2/2009 9:52:01 AM -- Dispatching transactions ends.
 11/2/2009 9:52:01 AM -- Shutting down databases ...
 11/2/2009 9:52:11 AM -- Instance6848.1 (complete), Instance6848.2 (complete), Instance6848.3 (complete), Instance6848.4 (complete), Instance6848.5 (complete), Instance6848.6 (complete), Instance6848.7 (complete), Instance6848.8 (complete), Instance6848.9 (complete), Instance6848.10 (complete), Instance6848.11 (complete), Instance6848.12 (complete), Instance6848.13 (complete), Instance6848.14 (complete), Instance6848.15 (complete), Instance6848.16 (complete), Instance6848.17 (complete), Instance6848.18 (complete), Instance6848.19 (complete), Instance6848.20 (complete), Instance6848.21 (complete), Instance6848.22 (complete), Instance6848.23 (complete), Instance6848.24 (complete), Instance6848.25 (complete), Instance6848.26 (complete), Instance6848.27 (complete), Instance6848.28 (complete), Instance6848.29 (complete), Instance6848.30 (complete), Instance6848.31 (complete), Instance6848.32 (complete), Instance6848.33 (complete), Instance6848.34 (complete), Instance6848.35 (complete), Instance6848.36 (complete), Instance6848.37 (complete), Instance6848.38 (complete), Instance6848.39 (complete), Instance6848.40 (complete), Instance6848.41 (complete), Instance6848.42 (complete), Instance6848.43 (complete), Instance6848.44 (complete), Instance6848.45 (complete), Instance6848.46 (complete), Instance6848.47 (complete), Instance6848.48 (complete), Instance6848.49 (complete), and Instance6848.50 (complete)
 11/2/2009 9:52:11 AM --
 C:\ESRP_HDP_1GB_RAID10\SoftRecovery\Performance_2009_11_2_3_59_36.blg has 1395 samples.
 11/2/2009 9:52:11 AM -- Creating test report ...
 11/2/2009 9:53:31 AM -- Volume C:\asgluns\sg1 has 0.0107 for Avg. Disk sec/Read.
 11/2/2009 9:53:31 AM -- Volume C:\asgluns\sg2 has 0.0100 for Avg. Disk sec/Read.
 11/2/2009 9:53:31 AM -- Volume C:\asgluns\sg3 has 0.0099 for Avg. Disk sec/Read.
 11/2/2009 9:53:31 AM -- Volume C:\asgluns\sg4 has 0.0099 for Avg. Disk sec/Read.
 11/2/2009 9:53:31 AM -- Volume C:\asgluns\sg5 has 0.0099 for Avg. Disk sec/Read.

11/2/2009 9:53:35 AM -- Volume C:\alogluns\log38 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log39 has 0.0006 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log39 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log40 has 0.0008 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log40 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log41 has 0.0007 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log41 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log42 has 0.0008 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log42 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log43 has 0.0006 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log43 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log44 has 0.0008 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log44 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log45 has 0.0007 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log45 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log46 has 0.0008 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log46 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log47 has 0.0006 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log47 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log48 has 0.0008 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log48 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log49 has 0.0007 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log49 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log50 has 0.0008 for Avg. Disk
 sec/write.
 11/2/2009 9:53:35 AM -- Volume C:\alogluns\log50 has 0.0000 for Avg. Disk
 sec/Read.
 11/2/2009 9:53:35 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
 11/2/2009 9:53:35 AM -- Test has 0 Database Page Fault Stalls/sec samples higher
 than 0.
 11/2/2009 9:53:35 AM --
 C:\ESRP_HDP_1GB_RAID10\SoftRecovery\Performance_2009_11_2_3_59_36.xml has 1394
 samples queried.
 11/2/2009 9:53:35 AM --
 C:\ESRP_HDP_1GB_RAID10\SoftRecovery\Performance_2009_11_2_3_59_36.html is saved.
 11/2/2009 7:29:22 PM -- Performance logging begins (interval: 4000 ms).
 11/2/2009 7:29:22 PM -- Recovering databases ...
 11/2/2009 8:11:19 PM -- Performance logging ends.
 11/2/2009 8:11:19 PM -- Instance6848.1 (2506.1716651), Instance6848.2
 (2466.1106083), Instance6848.3 (2495.5635971), Instance6848.4 (2340.4050025),
 Instance6848.5 (2490.7899665), Instance6848.6 (2436.1428162), Instance6848.7
 (2499.8068243), Instance6848.8 (2448.8724978), Instance6848.9 (2493.4419835),

Instance6848.10 (2470.0886338), Instance6848.11 (2489.9943614), Instance6848.12 (2420.2307142), Instance6848.13 (2502.1936396), Instance6848.14 (2422.6175295), Instance6848.15 (2495.0331937), Instance6848.16 (2435.3472111), Instance6848.17 (2492.3811767), Instance6848.18 (2458.1545573), Instance6848.19 (2344.6482297), Instance6848.20 (2492.9115801), Instance6848.21 (2354.1954909), Instance6848.22 (2508.2932787), Instance6848.23 (2347.035045), Instance6848.24 (2505.9064634), Instance6848.25 (2377.2680388), Instance6848.26 (2502.1936396), Instance6848.27 (2335.1009685), Instance6848.28 (2492.3811767), Instance6848.29 (2330.8577413), Instance6848.30 (2488.9335546), Instance6848.31 (2355.7867011), Instance6848.32 (2505.9064634), Instance6848.33 (2327.1449175), Instance6848.34 (2512.8017076), Instance6848.35 (2358.1735164), Instance6848.36 (2509.3540855), Instance6848.37 (2292.4034948), Instance6848.38 (2512.2713042), Instance6848.39 (2335.1009685), Instance6848.40 (2505.6412617), Instance6848.41 (2330.3273379), Instance6848.42 (2507.4976736), Instance6848.43 (2330.8577413), Instance6848.44 (2499.8068243), Instance6848.45 (2406.1750241), Instance6848.46 (2516.7797331), Instance6848.47 (2287.6298642), Instance6848.48 (2501.6632362), Instance6848.49 (2246.258399), and Instance6848.50 (2508.5584804)
 11/2/2009 8:11:20 PM --
 C:\ESRP_HDP_1GB_RAID10\SoftRecovery\SoftRecovery_2009_11_2_19_28_58.blg has 602 samples.
 11/2/2009 8:11:20 PM -- Creating test report ...

Soft Recovery Test Performance Result: SUN165

Test Summary

Overall Test Result	Pass
Machine Name	SUN165
Test Description	SoftRecovery
Test Start Time	11/2/2009 3:57:51 AM
Test End Time	11/2/2009 9:52:11 AM
Jetstress Version	08.02.0060.000
Ese Version	08.01.0240.005
Operating System	Windows Server (R) 2008 Enterprise Service Pack 1 (6.0.6001.65536)
Performance Log	C:\ESRP_HDP_1GB_RAID10\SoftRecovery\Performance_2009_11_2_3_59_36.blg

Database Sizing and Throughput

Achieved I/O per Second	1836.355
Capacity Percentage	100%
Throughput Percentage	100%
Initial database size	3685882822656
Final database size	3703926718464
Database files (count)	50

Jetstress System Parameters

Thread count	2 (per storage group)
Log buffers	9000
Minimum database cache	1600.0 MB

Maximum database cache	12800.0 MB
Insert operations	40%
Delete operations	30%
Replace operations	5%
Read operations	25%
Lazy commits	55%

Disk Subsystem Performance

Logical Disk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
Database (C:\asgluns\sg1)	0.011	0.003	20.180	15.964	(n/a)
Database (C:\asgluns\sg2)	0.010	0.003	20.720	16.334	(n/a)
Database (C:\asgluns\sg3)	0.010	0.002	20.546	16.165	(n/a)
Database (C:\asgluns\sg4)	0.010	0.002	20.981	16.458	(n/a)
Database (C:\asgluns\sg5)	0.010	0.002	20.596	16.171	(n/a)
Database (C:\asgluns\sg6)	0.010	0.003	20.297	16.068	(n/a)
Database (C:\asgluns\sg7)	0.010	0.002	20.692	16.351	(n/a)
Database (C:\asgluns\sg8)	0.010	0.003	20.169	16.041	(n/a)
Database (C:\asgluns\sg9)	0.010	0.002	20.415	16.047	(n/a)
Database (C:\asgluns\sg10)	0.010	0.003	20.652	16.489	(n/a)
Database (C:\asgluns\sg11)	0.010	0.002	20.165	16.091	(n/a)
Database (C:\asgluns\sg12)	0.010	0.003	19.939	15.654	(n/a)
Database (C:\asgluns\sg13)	0.010	0.002	20.622	16.492	(n/a)
Database (C:\asgluns\sg14)	0.010	0.003	20.283	15.997	(n/a)
Database (C:\asgluns\sg15)	0.010	0.002	20.516	16.162	(n/a)
Database (C:\asgluns\sg16)	0.010	0.003	20.528	16.152	(n/a)
Database	0.010	0.002	20.704	16.333	(n/a)

(C:\asgluns\sg17)					
Database (C:\asgluns\sg18)	0.010	0.003	20.519	16.302	(n/a)
Database (C:\asgluns\sg19)	0.010	0.002	20.578	16.368	(n/a)
Database (C:\asgluns\sg20)	0.010	0.003	20.317	15.953	(n/a)
Database (C:\asgluns\sg21)	0.010	0.002	20.640	16.334	(n/a)
Database (C:\asgluns\sg22)	0.010	0.003	20.264	15.985	(n/a)
Database (C:\asgluns\sg23)	0.010	0.002	20.591	16.410	(n/a)
Database (C:\asgluns\sg24)	0.010	0.003	20.928	16.478	(n/a)
Database (C:\asgluns\sg25)	0.010	0.002	20.771	16.559	(n/a)
Database (C:\asgluns\sg26)	0.010	0.003	20.175	16.043	(n/a)
Database (C:\asgluns\sg27)	0.010	0.002	20.654	16.404	(n/a)
Database (C:\asgluns\sg28)	0.010	0.003	20.418	16.064	(n/a)
Database (C:\asgluns\sg29)	0.010	0.002	20.520	16.216	(n/a)
Database (C:\asgluns\sg30)	0.010	0.003	20.561	16.060	(n/a)
Database (C:\asgluns\sg31)	0.010	0.002	20.562	16.241	(n/a)
Database (C:\asgluns\sg32)	0.010	0.003	20.737	16.361	(n/a)
Database (C:\asgluns\sg33)	0.010	0.002	20.258	16.131	(n/a)
Database (C:\asgluns\sg34)	0.010	0.003	20.312	16.089	(n/a)
Database (C:\asgluns\sg35)	0.010	0.002	20.435	16.249	(n/a)
Database (C:\asgluns\sg36)	0.010	0.003	20.588	16.222	(n/a)
Database (C:\asgluns\sg37)	0.010	0.002	20.260	15.821	(n/a)
Database (C:\asgluns\sg38)	0.010	0.003	20.686	16.376	(n/a)
Database (C:\asgluns\sg39)	0.010	0.002	20.591	16.308	(n/a)

Database (C:\asgluns\sg40)	0.010	0.003	20.508	16.154	(n/a)
Database (C:\asgluns\sg41)	0.010	0.002	20.773	16.418	(n/a)
Database (C:\asgluns\sg42)	0.010	0.003	20.471	16.236	(n/a)
Database (C:\asgluns\sg43)	0.010	0.002	20.588	16.278	(n/a)
Database (C:\asgluns\sg44)	0.010	0.003	20.503	16.058	(n/a)
Database (C:\asgluns\sg45)	0.010	0.003	20.489	16.098	(n/a)
Database (C:\asgluns\sg46)	0.010	0.003	20.770	16.372	(n/a)
Database (C:\asgluns\sg47)	0.010	0.002	20.629	16.404	(n/a)
Database (C:\asgluns\sg48)	0.010	0.003	20.634	16.131	(n/a)
Database (C:\asgluns\sg49)	0.010	0.002	20.698	16.127	(n/a)
Database (C:\asgluns\sg50)	0.010	0.003	20.438	16.266	(n/a)
Log (C:\alogluns\log1)	0.000	0.001	0.000	13.302	4096.915
Log (C:\alogluns\log2)	0.000	0.001	0.000	13.479	4109.246
Log (C:\alogluns\log3)	0.000	0.001	0.000	13.424	4116.842
Log (C:\alogluns\log4)	0.000	0.001	0.000	13.613	4171.924
Log (C:\alogluns\log5)	0.000	0.001	0.000	13.258	4106.468
Log (C:\alogluns\log6)	0.000	0.001	0.000	13.332	4118.274
Log (C:\alogluns\log7)	0.000	0.001	0.000	13.419	4100.893
Log (C:\alogluns\log8)	0.000	0.001	0.000	13.448	4151.996
Log (C:\alogluns\log9)	0.000	0.001	0.000	13.252	4126.324
Log (C:\alogluns\log10)	0.000	0.001	0.000	13.537	4195.135
Log (C:\alogluns\log11)	0.000	0.001	0.000	13.372	4079.503
Log (C:\alogluns\log12)	0.000	0.001	0.000	13.125	4120.010
Log (C:\alogluns\log13)	0.000	0.001	0.000	13.596	4121.735
Log (C:\alogluns\log14)	0.000	0.001	0.000	13.217	4101.816
Log (C:\alogluns\log15)	0.000	0.001	0.000	13.434	4146.204
Log (C:\alogluns\log16)	0.000	0.001	0.000	13.437	4070.584
Log (C:\alogluns\log17)	0.000	0.001	0.000	13.479	4105.397
Log (C:\alogluns\log18)	0.000	0.001	0.000	13.525	4146.029
Log (C:\alogluns\log19)	0.000	0.001	0.000	13.583	4130.963

Log (C:\alogluns\log20)	0.000	0.001	0.000	13.202	4132.581
Log (C:\alogluns\log21)	0.000	0.001	0.000	13.486	4099.096
Log (C:\alogluns\log22)	0.000	0.001	0.000	13.232	4108.019
Log (C:\alogluns\log23)	0.000	0.001	0.000	13.513	4121.830
Log (C:\alogluns\log24)	0.000	0.001	0.000	13.508	4084.833
Log (C:\alogluns\log25)	0.000	0.001	0.000	13.626	4162.113
Log (C:\alogluns\log26)	0.000	0.001	0.000	13.293	4184.239
Log (C:\alogluns\log27)	0.000	0.001	0.000	13.568	4073.292
Log (C:\alogluns\log28)	0.000	0.001	0.000	13.215	4150.162
Log (C:\alogluns\log29)	0.000	0.001	0.000	13.457	4111.183
Log (C:\alogluns\log30)	0.000	0.001	0.000	13.224	4059.989
Log (C:\alogluns\log31)	0.000	0.001	0.000	13.473	4170.102
Log (C:\alogluns\log32)	0.000	0.001	0.000	13.512	4119.287
Log (C:\alogluns\log33)	0.000	0.001	0.000	13.364	4092.868
Log (C:\alogluns\log34)	0.000	0.001	0.000	13.315	4075.375
Log (C:\alogluns\log35)	0.000	0.001	0.000	13.410	4129.971
Log (C:\alogluns\log36)	0.000	0.001	0.000	13.298	4093.029
Log (C:\alogluns\log37)	0.000	0.001	0.000	13.217	4155.674
Log (C:\alogluns\log38)	0.000	0.001	0.000	13.554	4122.871
Log (C:\alogluns\log39)	0.000	0.001	0.000	13.482	4119.440
Log (C:\alogluns\log40)	0.000	0.001	0.000	13.342	4095.825
Log (C:\alogluns\log41)	0.000	0.001	0.000	13.537	4071.968
Log (C:\alogluns\log42)	0.000	0.001	0.000	13.534	4170.501
Log (C:\alogluns\log43)	0.000	0.001	0.000	13.453	4179.388
Log (C:\alogluns\log44)	0.000	0.001	0.000	13.219	4131.647
Log (C:\alogluns\log45)	0.000	0.001	0.000	13.266	4115.725
Log (C:\alogluns\log46)	0.000	0.001	0.000	13.439	4143.843
Log (C:\alogluns\log47)	0.000	0.001	0.000	13.457	4139.191
Log (C:\alogluns\log48)	0.000	0.001	0.000	13.272	4099.563
Log (C:\alogluns\log49)	0.000	0.001	0.000	13.345	4091.602
Log (C:\alogluns\log50)	0.000	0.001	0.000	13.439	4143.008

Host System Performance

<i>Counter</i>	<i>Average</i>	<i>Minimum</i>	<i>Maximum</i>
% Processor Time	2.267	0.617	11.339
Available MBytes	17403.166	16363.000	29411.000
Free System Page Table Entries	33562601.071	33560381.000	33565768.000

Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	156621852.628	156274688.000	157007872.000
Pool Paged Bytes	216829238.503	215576576.000	218083328.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

```

11/2/2009 3:57:51 AM -- Jetstress testing begins ...
11/2/2009 3:57:51 AM -- Prepare testing begins ...
11/2/2009 3:58:42 AM -- Attaching databases ...
11/2/2009 3:58:42 AM -- Prepare testing ends.
11/2/2009 3:58:42 AM -- Dispatching transactions begins ...
11/2/2009 3:58:42 AM -- Database cache settings: (minimum: 1.6 GB, maximum: 12.5 GB)
11/2/2009 3:58:42 AM -- Database flush thresholds: (start: 128.0 MB, stop: 256.0 MB)
11/2/2009 3:59:36 AM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).
11/2/2009 3:59:36 AM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).
11/2/2009 3:59:42 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%, Replaces 5%, Reads 25%, Lazy Commits 55%.
11/2/2009 3:59:42 AM -- Performance logging begins (interval: 15000 ms).
11/2/2009 3:59:42 AM -- Generating log files ...
11/2/2009 9:52:01 AM -- C:\alogluns\log1 (101.8% generated), C:\alogluns\log2 (102.4% generated), C:\alogluns\log3 (102.2% generated), C:\alogluns\log4 (104.2% generated), C:\alogluns\log5 (100.4% generated), C:\alogluns\log6 (101.8% generated), C:\alogluns\log7 (102.2% generated), C:\alogluns\log8 (103.0% generated), C:\alogluns\log9 (100.4% generated), C:\alogluns\log10 (104.0% generated), C:\alogluns\log11 (102.0% generated), C:\alogluns\log12 (100.2% generated), C:\alogluns\log13 (103.6% generated), C:\alogluns\log14 (100.6% generated), C:\alogluns\log15 (102.6% generated), C:\alogluns\log16 (102.0% generated), C:\alogluns\log17 (102.8% generated), C:\alogluns\log18 (103.2% generated), C:\alogluns\log19 (103.2% generated), C:\alogluns\log20 (100.4% generated), C:\alogluns\log21 (102.2% generated), C:\alogluns\log22 (101.2% generated), C:\alogluns\log23 (102.6% generated), C:\alogluns\log24 (102.2% generated), C:\alogluns\log25 (104.8% generated), C:\alogluns\log26 (101.8% generated), C:\alogluns\log27 (103.6% generated), C:\alogluns\log28 (100.2% generated), C:\alogluns\log29 (102.6% generated), C:\alogluns\log30 (100.2% generated), C:\alogluns\log31 (102.4% generated), C:\alogluns\log32 (102.8% generated), C:\alogluns\log33 (101.8% generated), C:\alogluns\log34 (101.8% generated), C:\alogluns\log35 (102.4% generated), C:\alogluns\log36 (101.0% generated), C:\alogluns\log37 (101.6% generated), C:\alogluns\log38 (103.4% generated), C:\alogluns\log39 (102.8% generated), C:\alogluns\log40 (101.8% generated), C:\alogluns\log41 (102.0% generated), C:\alogluns\log42 (104.0% generated), C:\alogluns\log43 (102.6% generated), C:\alogluns\log44 (101.0% generated), C:\alogluns\log45 (101.2% generated), C:\alogluns\log46 (103.0% generated), C:\alogluns\log47 (102.6% generated), C:\alogluns\log48 (101.0% generated), C:\alogluns\log49 (101.8% generated), and C:\alogluns\log50 (103.0% generated)
11/2/2009 9:52:01 AM -- Performance logging ends.
11/2/2009 9:52:01 AM -- JetInterop batch transaction stats: 13220, 13359, 13326, 13647, 13180, 13233, 13397, 13321, 13215, 13526, 13198, 13052, 13501, 13212, 13323, 13307, 13457, 13323, 13502, 13248, 13349, 13249, 13399, 13525, 13614, 13166, 13451, 13248, 13367, 13289, 13409, 13469, 13255, 13229, 13352, 13407, 13198, 13469, 13416, 13326, 13550, 13487, 13409, 13340, 13275, 13494, 13438, 13318, 13504, and 13293.
11/2/2009 9:52:01 AM -- Dispatching transactions ends.
11/2/2009 9:52:01 AM -- Shutting down databases ...
11/2/2009 9:52:11 AM -- Instance6848.1 (complete), Instance6848.2 (complete), Instance6848.3 (complete), Instance6848.4 (complete), Instance6848.5 (complete),

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11/2/2009 9:53:35 AM -- Volume C:\alogluns\log48 has 0.0008 for Avg. Disk
sec/write.
11/2/2009 9:53:35 AM -- Volume C:\alogluns\log48 has 0.0000 for Avg. Disk
sec/Read.
11/2/2009 9:53:35 AM -- Volume C:\alogluns\log49 has 0.0007 for Avg. Disk
sec/write.
11/2/2009 9:53:35 AM -- Volume C:\alogluns\log49 has 0.0000 for Avg. Disk
sec/Read.
11/2/2009 9:53:35 AM -- Volume C:\alogluns\log50 has 0.0008 for Avg. Disk
sec/write.
11/2/2009 9:53:35 AM -- Volume C:\alogluns\log50 has 0.0000 for Avg. Disk
sec/Read.
11/2/2009 9:53:35 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
11/2/2009 9:53:35 AM -- Test has 0 Database Page Fault Stalls/sec samples higher
than 0.
11/2/2009 9:53:35 AM --
C:\ESRP_HDP_1GB_RAID10\SoftRecovery\Performance_2009_11_2_3_59_36.xml has 1394
samples queried.



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