

Hitachi Adaptable Modular Storage 2500 Dynamically Provisioned 40,000 User Exchange 2007 Clustered Continuous Replication Storage Solution

Tested with: ESRP – Storage Version 2.1

Test Date: November 2009

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Overview

This document provides information on a Hitachi Adaptable Modular Storage 2500 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 40,000 users and sixteen servers. This testing used the Hitachi Adaptable Modular Storage 2500 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 2500.

The test configuration was capable of supporting 40,000 users with a 0.384 IOPS per user profile and a user mailbox size of 1GB. A 2500 with 480 450GB 15K RPM SAS disks, 32GB of cache and sixteen 4Gbit/s host paths was used for these tests. Testing used 16 Sun Fire 4270 servers with 32GB of RAM, two quad-core Intel E5540 2.53GHz CPUs each, 32 Emulex 4Gbit/s Fibre Channel adapters, and Windows Server 2008 Enterprise with Service Pack 1.

The 2500 is a high-performance, highly reliable high-range storage system that can scale to 480 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 2500 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 2500 to meet the needs of a large Exchange Server deployment.

This solution uses Hitachi Dynamic Provisioning software, which is enabled on the 2500 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 2500 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 2500. 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.

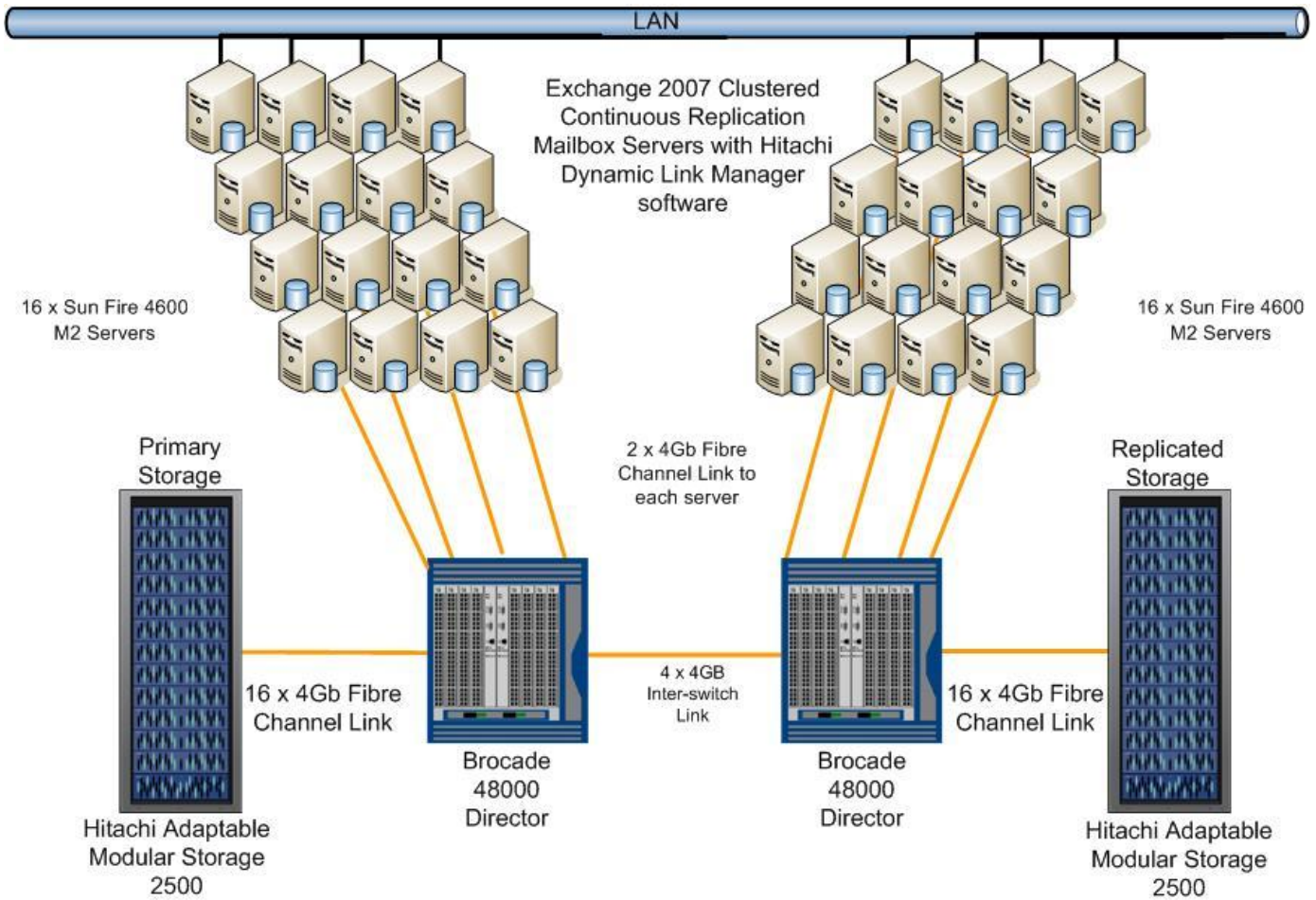
Hitachi Dynamic Provisioning software also carries the side benefit of thin provisioning, where physical space is mapped as needed from the shared pool to the DP-VOL in 32MB segments, up to the logical size specified for each DP-VOL. A pool can also be dynamically expanded by adding more RAID groups 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 an Exchange Server 2007 environment the performance and capacity utilization improvements of wide-striped Pools and the enhanced management efficiencies are the primary benefits of Hitachi Dynamic Provisioning software when compared with a traditional, static storage configuration. For more information about Hitachi Dynamic Provisioning software, see <http://www.hds.com/products/storage-software/hitachi-dynamic-provisioning.html>.

For the targeted 40,000-user Exchange environment, a 2500 configured with 480 disks (the maximum) and 16 servers was used for the primary storage.

An identical set of servers using 480 disks on a separate 2500 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 2500 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 2500's disks were organized into RAID groups for use by databases and logs in the primary storage. Each set of colored disks represents a RAID-1+0 (4D+4D) group. 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 2500 RAID Groups by RKA Tray Layout

Drive Slot	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
RKA 31	59	59	59	59	59	59	59	60	60	60	60	60	60	60	60
RKA 30	57	57	57	57	57	57	58	58	58	58	58	58	58	58	59
RKA 29	55	55	55	55	55	56	56	56	56	56	56	56	56	57	57
RKA	53	53	53	53	54	54	54	54	54	54	54	54	55	55	55

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RKA 27	51	51	51	52	52	52	52	52	52	52	52	53	53	53	53
RKA 26	49	49	50	50	50	50	50	50	50	50	51	51	51	51	51
RKA 25	47	48	48	48	48	48	48	48	48	49	49	49	49	49	49
RKA 24	46	46	46	46	46	46	46	46	47	47	47	47	47	47	47
RKA 23	44	44	44	44	44	44	44	45	45	45	45	45	45	45	45
RKA 22	42	42	42	42	42	42	43	43	43	43	43	43	43	43	44
RKA 21	40	40	40	40	40	41	41	41	41	41	41	41	41	42	42
RKA 20	38	38	38	38	39	39	39	39	39	39	39	39	40	40	40
RKA 19	36	36	36	37	37	37	37	37	37	37	37	38	38	38	38
RKA 18	34	34	35	35	35	35	35	35	35	35	36	36	36	36	36
RKA 17	32	33	33	33	33	33	33	33	33	34	34	34	34	34	34
RKA 16	31	31	31	31	31	31	31	31	32	32	32	32	32	32	32
RKA 15	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30
RKA 14	27	27	27	27	27	27	28	28	28	28	28	28	28	28	29
RKA 13	25	25	25	25	25	26	26	26	26	26	26	26	26	27	27
RKA 12	23	23	23	23	24	24	24	24	24	24	24	24	25	25	25
RKA 11	21	21	21	22	22	22	22	22	22	22	22	23	23	23	23
RKA 10	19	19	20	20	20	20	20	20	20	20	21	21	21	21	21
RKA 9	17	18	18	18	18	18	18	18	18	19	19	19	19	19	19
RKA 8	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17
RKA 7	14	14	14	14	14	14	14	15	15	15	15	15	15	15	15
RKA 6	12	12	12	12	12	12	13	13	13	13	13	13	13	13	14

RKA 5	10	10	10	10	10	11	11	11	11	11	11	11	11	12	12
RKA 4	8	8	8	8	9	9	9	9	9	9	9	9	10	10	10
RKA 3	6	6	6	7	7	7	7	7	7	7	7	8	8	8	8
RKA 2	4	4	5	5	5	5	5	5	5	5	6	6	6	6	6
RKA 1	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4
RKA 0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2



Two Dynamic Provisioning pools were created, one for the databases and other for the logs. The database pool was created from 54 RAID-1+0 RAID groups and the log pool was created from six RAID-1+0 RAID groups. From the database pool, 192 DP-VOLs (each specified to have 400GB size limit) were created for 768 storage groups (48 per server). From the log pool, 192 DP-VOLs (each specified to have a size limit of 40GB) were created for 768 logs (48 per server).

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

Table 2. Adaptable Modular Storage 2500 Port Layout

<i>Server</i>	<i>Primary Path</i>	<i>Secondary Path</i>
SUN141	0A	1A
SUN142	0B	1B
SUN143	0C	1C
SUN144	0D	1D
SUN145	0E	1E
SUN146	0F	1F
SUN147	0G	1G
SUN148	0H	1H
SUN149	1A	0A
SUN150	1B	0B
SUN151	1C	0C
SUN152	1D	0D

SUN153	1E	0E
SUN154	1F	0F
SUN155	1G	0G
SUN156	1H	0H

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 2500 Port to Database DP-VOL Layout

<i>Port</i>	<i>Database DP-VOL</i>	
0A	0-11	96-107
0B	12-23	108-119
0C	24-35	120-131
0D	36-47	132-143
0E	48-59	144-155
0F	60-71	156-167
0G	72-83	168-179
0H	84-95	180-191
1A	96-107	0-11
1B	108-119	12-23
1C	120-131	24-35
1D	132-143	36-47
1E	144-155	48-59
1F	156-167	60-71
1G	168-179	72-83
1H	180-191	84-95

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 2500 Port to Log DP-VOL Layout

<i>Port</i>	<i>Log DP-VOL</i>	
0A	192-203	288-299
0B	204-215	300-311
0C	216-227	312-323
0D	228-239	324-335
0E	240-251	336-347

0F	252-263	348-359
0G	264-275	360-371
0H	276-287	372-383
1A	288-299	192-203
1B	300-311	204-215
1C	312-323	216-227
1D	324-335	228-239
1E	336-347	240-251
1F	348-359	252-263
1G	360-371	264-275
1H	372-383	276-287

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 2500 Configuration Details

<i>Host</i>	<i>Port</i>	<i>DP-Pool</i>	<i>DP-VOL</i>	<i>Size (GB)</i>	<i>Description</i>
SUN141	0A/1A	0	0-11	400	Storage groups 1-48
SUN142	0B/1B	0	12-23	400	Storage groups 2649-96
SUN143	0C/1C	0	24-35	400	Storage groups 97-144
SUN144	0D/1D	0	36-47	400	Storage groups 145-192
SUN145	0A/1A	0	48-59	400	Storage groups 193-240
SUN146	0B/1B	0	60-71	400	Storage groups 241-288
SUN147	0C/1C	0	72-83	400	Storage groups 289-336
SUN148	0D/1D	0	84-95	400	Storage groups 337-384
SUN149	1A/0A	0	96-107	400	Storage groups 385-432
SUN150	1B/0B	0	108-119	400	Storage groups 433-480
SUN151	C1/0C	0	120-131	400	Storage groups 481-528
SUN152	1D/0D	0	132-143	400	Storage groups 529-576
SUN153	1E/0E	0	144-155	400	Storage groups 577-624

SUN154	1F/0F	0	156-167	400	Storage groups 625-672
SUN155	1G/0G	0	168-179	400	Storage groups 673-720
SUN156	1H/0H	0	180-191	400	Storage groups 721-768
SUN141	0A/1A	1	192-203	40	Logs 1-48
SUN142	0B/1B	1	204-215	40	Logs 49-96
SUN143	0C/1C	1	216-227	40	Logs 97-144
SUN144	0D/1D	1	228-239	40	Logs 145-192
SUN145	0A/1A	1	240-251	40	Logs 193-240
SUN146	0B/1B	1	252-263	40	Logs 241-288
SUN147	0C/1C	1	264-275	40	Logs 289-336
SUN148	0D/1D	1	276-287	40	Logs 337-384
SUN149	1A/0A	1	288-299	40	Logs 385-432
SUN150	1B/0B	1	300-311	40	Logs 433-480
SUN151	C1/0C	1	312-323	40	Logs 481-528
SUN152	1D/0D	1	324-335	40	Logs 529-576
SUN153	1E/0E	1	336-347	40	Logs 577-624
SUN154	1F/0F	1	348-359	40	logs 625-672
SUN155	1G/0G	1	360-371	40	Logs 673-720
SUN156	1H/0H	1	372-383	40	Logs 721-768

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 supports 40,000 Exchange users with the following specifications:

- 16 Exchange Servers
- 2,500 users on a single Exchange Server
- 0.384 IOPS per user
- 1 GB mailbox size
- 768 storage groups (48 per server)
- 1 database per storage group (768 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>	40,000
<i>Number of hosts</i>	16
<i>Number of mailboxes per host</i>	2,500
<i>Number of storage groups per host</i>	48
<i>Number of mailbox stores per storage group</i>	1
<i>Number of mailboxes per mailbox store</i>	52.08
<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>	100GB
<i>Log LU size</i>	10GB
<i>Total database size for performance testing</i>	40,000GB
<i>% storage capacity used by Exchange database**</i>	40.7%

Table 7. Primary Storage Hardware

<i>Storage type</i>	SAN
<i>Storage connectivity</i>	Fibre Channel

Storage model and OS/firmware revision	1 Hitachi Adaptable Modular Storage 2500 Firmware :0872/E - H WHQL listing: Hitachi Adaptable Modular Storage 2500
Storage cache	32GB
Number of storage controllers	2
Number of storage ports	16
Maximum bandwidth of storage connectivity to host	32Gbit/s (8 x 4Gbit/s ports)
Switch type/model/firmware revision	Brocade 5320
HBA model and firmware	Emulex LPe11002,FW: 2.82A3
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	480
Maximum number of spindles can be hosted in the storage	480

Table 8. Primary Storage Software

HBA driver	STOR Miniport 7.2.1.4
HBA QueueTarget setting	0
HBA QueueDepth setting	32
Multipathing	Hitachi Dynamic Link Manager v6.2.0
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 4C57
Raw capacity per disk (GB)	450GB
Number of physical disks in test	432 (Dynamic Provisioning pool)
Total raw storage capacity (GB)	194,400GB
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	88,344GB (Dynamic Provisioning database pool)
Storage capacity utilization	45.4%
Database capacity utilization	78.2%

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

<i>Disk type, speed and firmware revision</i>	SAS disk 450GB 15K 4C57
<i>Raw capacity per disk (GB)</i>	450GB
<i>Number of spindles in test</i>	48 (Dynamic Provisioning pool)
<i>Total raw storage capacity (GB)</i>	21,600GB
<i>Disk slice size (GB)</i>	N/A
<i>Number of slices per LU or number of disks per LU</i>	N/A
<i>RAID level</i>	RAID-1+0 (4+4) at storage level
<i>Total formatted capacity</i>	9,816GB (Dynamic Provisioning log pool)

Streaming Backup

N/A

Replication

The following tables summarize the replication environment.

Table 11. Replicated Configuration

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

Table 12. Replicated Storage Hardware

<i>Number of Exchange mailboxes simulated</i>	40,000
<i>Number of hosts</i>	16
<i>Number of mailboxes per host</i>	2,500
<i>Number of storage groups per host</i>	48
<i>Number of mailbox stores per storage group</i>	1
<i>Number of mailboxes per mailbox store</i>	52.08
<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>	100GB
<i>Log LU size</i>	10GB
<i>Total database size for performance testing</i>	40,000GB

% storage capacity used by Exchange database**	40.7%
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Table 13. Replicated Storage Software

HBA driver	STOR Miniport 7.2.1.4
HBA QueueTarget setting	0
HBA QueueDepth setting	32
Multipathing	Hitachi Dynamic Link Manager v6.2.0
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 4C57
Raw capacity per disk (GB)	450GB
Number of physical disks in test	432 (Dynamic Provisioning pool)
Total raw storage capacity (GB)	194,400GB
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	88,344GB (Dynamic Provisioning database pool)
Storage capacity utilization	45.4%
Database capacity utilization	78.2%

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

Disk type, speed and firmware revision	SAS Disk 450 GB 15K 4C57
Raw capacity per disk (GB)	450GB
Number of spindles in test	48 (Dynamic Provisioning Pool)
Total raw storage capacity (GB)	21,600GB
Disk slice size (GB)	N/A
Number of slices per LU or number of disks per LU	N/A
RAID level	RAID-10 (4+4) at storage level
Total formatted capacity	9,816GB (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 2500 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 2500, 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 groups for the database pools and RAID-1 or RAID-1+0 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 (SUN141)

Database I/O	
<i>Database Disk Transfers/sec</i>	1096 IOPS
<i>Database Disk Reads/sec</i>	597 IOPS
<i>Database Disk Writes/sec</i>	499 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	407 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 17. Individual Server Metrics for Exchange Server (SUN142)

Database I/O	
<i>Database Disk Transfers/sec</i>	1100 IOPS
<i>Database Disk Reads/sec</i>	600 IOPS
<i>Database Disk Writes/sec</i>	500 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	409 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 18. Individual Server Metrics for Exchange Server (SUN143)

Database I/O	
<i>Database Disk Transfers/sec</i>	1106 IOPS
<i>Database Disk Reads/sec</i>	602 IOPS
<i>Database Disk Writes/sec</i>	504 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	

<i>Log Disk Writes/sec</i>	413 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 19. Individual Server Metrics for Exchange Server (SUN144)

Database I/O	
<i>Database Disk Transfers/sec</i>	1096 IOPS
<i>Database Disk Reads/sec</i>	599 IOPS
<i>Database Disk Writes/sec</i>	497 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	405 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 20. Individual Server Metrics for Exchange Server (SUN145)

Database I/O	
<i>Database Disk Transfers/sec</i>	1097 IOPS
<i>Database Disk Reads/sec</i>	595 IOPS
<i>Database Disk Writes/sec</i>	502 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
Log Disk Writes/sec	412 IOPS
Average Log Disk Write Latency (ms)	2

Table 21. Individual Server Metrics for Exchange Server (SUN146)

Database I/O	
<i>Database Disk Transfers/sec</i>	1093 IOPS
<i>Database Disk Reads/sec</i>	596 IOPS
<i>Database Disk Writes/sec</i>	497 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	407 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 22. Individual Server Metrics for Exchange Server (SUN147)

Database I/O	
<i>Database Disk Transfers/sec</i>	1100 IOPS
<i>Database Disk Reads/sec</i>	600 IOPS
<i>Database Disk Writes/sec</i>	500 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	409 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 23. Individual Server Metrics for Exchange Server (SUN148)

Database I/O	
<i>Database Disk Transfers/sec</i>	1096 IOPS
<i>Database Disk Reads/sec</i>	596 IOPS
<i>Database Disk Writes/sec</i>	500 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	409 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 24. Individual Server Metrics for Exchange Server (SUN149)

Database I/O	
<i>Database Disk Transfers/sec</i>	1082 IOPS
<i>Database Disk Reads/sec</i>	589 IOPS
<i>Database Disk Writes/sec</i>	493 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	404 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 25. Individual Server Metrics for Exchange Server (SUN150)

Database I/O	
<i>Database Disk Transfers/sec</i>	1092 IOPS

<i>Database Disk Reads/sec</i>	595 IOPS
<i>Database Disk Writes/sec</i>	497 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	406 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 26. Individual Server Metrics for Exchange Server (SUN151)

Database I/O	
<i>Database Disk Transfers/sec</i>	1093 IOPS
<i>Database Disk Reads/sec</i>	596 IOPS
<i>Database Disk Writes/sec</i>	497 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	408 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 27. Individual Server Metrics for Exchange Server (SUN152)

Database I/O	
<i>Database Disk Transfers/sec</i>	1103 IOPS
<i>Database Disk Reads/sec</i>	598 IOPS
<i>Database Disk Writes/sec</i>	505 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	413 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 28. Individual Server Metrics for Exchange Server (SUN153)

Database I/O	
<i>Database Disk Transfers/sec</i>	1086 IOPS
<i>Database Disk Reads/sec</i>	591 IOPS
<i>Database Disk Writes/sec</i>	495 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9

<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	406 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 29. Individual Server Metrics for Exchange Server (SUN154)

Database I/O	
<i>Database Disk Transfers/sec</i>	1087 IOPS
<i>Database Disk Reads/sec</i>	591 IOPS
<i>Database Disk Writes/sec</i>	496 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	406 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 30. Individual Server Metrics for Exchange Server (SUN155)

Database I/O	
<i>Database Disk Transfers/sec</i>	1089 IOPS
<i>Database Disk Reads/sec</i>	593 IOPS
<i>Database Disk Writes/sec</i>	496 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	408 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

Table 31. Individual Server Metrics for Exchange Server (SUN156)

Database I/O	
<i>Database Disk Transfers/sec</i>	1088 IOPS
<i>Database Disk Reads/sec</i>	595 IOPS
<i>Database Disk Writes/sec</i>	493 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Log Disk Writes/sec</i>	402 IOPS

Average Log Disk Write Latency (ms)	2
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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 32. Aggregate Performance for Exchange Server 2007

Database I/O	
Database Disk Transfers/sec	17,504 IOPS
Database Disk Reads/sec	9,533 IOPS
Database Disk Writes/sec	7,971 IOPS
Average Database Disk Read Latency (ms)	9
Average Database Disk Write Latency (ms)	4
Transaction Log I/O	
Average Log Disk Writes/sec	6,524 IOPS
Average Log Disk Write Latency (ms)	2

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 33. Database Read-only Performance for Exchange Server (SUN141)

MB read/sec per storage group	1.3
MB read/sec total	61.3

Table 34. Database Read-only Performance for Exchange Server (SUN142)

MB read/sec per storage group	1.3
MB read/sec total	61.5

Table 35. Database Read-only Performance for Exchange Server (SUN143)

MB read/sec per storage group	1.3
MB read/sec total	61.1

Table 36. Database Read-only Performance for Exchange Server (SUN144)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.4

Table 37. Database Read-only Performance for Exchange Server (SUN145)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.6

Table 38. Database Read-only Performance for Exchange Server (SUN146)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.6

Table 39. Database Read-only Performance for Exchange Server (SUN147)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.3

Table 40. Database Read-only Performance for Exchange Server (SUN148)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	62.7

Table 41. Database Read-only Performance for Exchange Server (SUN149)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.2

Table 42. Database Read-only Performance for Exchange Server (SUN150)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.1

Table 43. Database Read-only Performance for Exchange Server (SUN151)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.0

Table 44. Database Read-only Performance for Exchange Server (SUN152)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.1

Table 45. Database Read-only Performance for Exchange Server (SUN153)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.8

Table 46. Database Read-only Performance for Exchange Server (SUN154)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.6

Table 47. Database Read-only Performance for Exchange Server (SUN155)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.9

Table 48. Database Read-only Performance for Exchange Server (SUN156)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	61.5

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 49. Log Read-only Performance for Exchange Server (SUN141)

<i>Average time to play one log file (sec)</i>	9.80
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Table 50. Log Read-only Performance for Exchange Server (SUN142)

<i>Average time to play one log file (sec)</i>	9.75
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Table 51. Log Read-only Performance for Exchange Server (SUN143)

<i>Average time to play one log file (sec)</i>	9.64
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Table 52. Log Read-only Performance for Exchange Server (SUN144)

<i>Average time to play one log file (sec)</i>	9.70
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Table 53. Log Read-only Performance for Exchange Server (SUN145)

<i>Average time to play one log file (sec)</i>	9.78
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Table 54. Log Read-only Performance for Exchange Server (SUN146)

Average time to play one log file (sec) 9.71

Table 55. Log Read-only Performance for Exchange Server (SUN147)

Average time to play one log file (sec) 9.74

Table 52. Log Read-only Performance for Exchange Server (SUN148)

Average time to play one log file (sec) 9.75

Table 53. Log Read-only Performance for Exchange Server (SUN149)

Average time to play one log file (sec) 9.73

Table 54. Log Read-only Performance for Exchange Server (SUN150)

Average time to play one log file (sec) 9.75

Table 55. Log Read-only Performance for Exchange Server (SUN151)

Average time to play one log file (sec) 9.22

Table 56. Log Read-only Performance for Exchange Server (SUN152)

Average time to play one log file (sec) 9.79

Table 57. Log Read-only Performance for Exchange Server (SUN153)

Average time to play one log file (sec) 9.72

Table 58. Log Read-only Performance for Exchange Server (SUN154)

Average time to play one log file (sec) 9.73

Table 59. Log Read-only Performance for Exchange Server (SUN155)

Average time to play one log file (sec) 9.87

Table 60. Log Read-only Performance for Exchange Server (SUN156)

Average time to play one log file (sec) 9.78

Conclusion

This document details a tested configuration capable of supporting 40,000 users in a CCR configuration with a 0.3846 IOPS per user profile and user mailbox size of 1GB. A Hitachi Adaptable Modular Storage 2500, configured with 32GB of cache, sixteen 4Gbit/s Fibre Channel host paths, using Hitachi Dynamic Provisioning software (with two Pools) and 480 450GB 15K RPM SAS disks in a RAID-1+0 configuration was used for these tests. Testing confirmed that the 2500 is capable of delivering the IOPS and capacity requirements needed to support 40,000 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 may affect performance and capacity requirements and each need 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: SUN141

Test Summary

Overall Test Result	Pass
Machine Name	SUN141
Test Description	
Test Start Time	11/9/2009 7:33:33 AM
Test End Time	11/9/2009 6:41:21 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\Performance Test\Performance_2009_11_9_7_35_14.blg C:\ESRP_HDP_1GB\Performance Test\DBChecksum_2009_11_9_18_41_21.blg

Database Sizing and Throughput

Achieved I/O per Second	1095.684
Target I/O per Second	960
Initial database size	3259102920704
Final database size	3282018500608
Database files (count)	48

Jetstress System Parameters

Thread count	2 (per storage group)
Log buffers	9000
Minimum database cache	1536.0 MB
Maximum database cache	12288.0 MB
Insert operations	40%
Delete operations	30%
Replace operations	5%
Read operations	25%
Lazy commits	55%

Disk Subsystem Performance

Logical Disk	Avg. Disk	Avg. Disk	Disk	Disk	Avg. Disk
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	<i>sec/Read</i>	<i>sec/Write</i>	<i>Reads/sec</i>	<i>Writes/sec</i>	<i>Bytes/Write</i>
Database (C:\asgluns\sg1)	0.009	0.004	12.190	10.286	(n/a)
Database (C:\asgluns\sg2)	0.009	0.004	12.164	10.026	(n/a)
Database (C:\asgluns\sg3)	0.009	0.004	12.159	10.218	(n/a)
Database (C:\asgluns\sg4)	0.009	0.004	12.540	10.612	(n/a)
Database (C:\asgluns\sg5)	0.009	0.004	12.672	10.799	(n/a)
Database (C:\asgluns\sg6)	0.009	0.004	12.420	10.466	(n/a)
Database (C:\asgluns\sg7)	0.009	0.004	12.851	10.665	(n/a)
Database (C:\asgluns\sg8)	0.009	0.004	12.953	10.826	(n/a)
Database (C:\asgluns\sg9)	0.009	0.004	12.413	10.317	(n/a)
Database (C:\asgluns\sg10)	0.009	0.004	11.932	10.200	(n/a)
Database (C:\asgluns\sg11)	0.009	0.004	12.672	10.585	(n/a)
Database (C:\asgluns\sg12)	0.009	0.004	12.357	10.267	(n/a)
Database (C:\asgluns\sg13)	0.009	0.004	12.598	10.504	(n/a)
Database (C:\asgluns\sg14)	0.009	0.004	12.623	10.585	(n/a)
Database (C:\asgluns\sg15)	0.009	0.004	12.230	10.224	(n/a)
Database (C:\asgluns\sg16)	0.009	0.004	12.248	10.229	(n/a)
Database (C:\asgluns\sg17)	0.009	0.004	13.034	10.748	(n/a)
Database (C:\asgluns\sg18)	0.009	0.004	12.463	10.502	(n/a)
Database (C:\asgluns\sg19)	0.009	0.004	12.547	10.363	(n/a)
Database (C:\asgluns\sg20)	0.009	0.004	12.528	10.485	(n/a)
Database (C:\asgluns\sg21)	0.009	0.004	11.776	9.883	(n/a)
Database (C:\asgluns\sg22)	0.009	0.004	12.456	10.464	(n/a)

Database (C:\asgluns\sg23)	0.009	0.004	12.122	10.139	(n/a)
Database (C:\asgluns\sg24)	0.009	0.004	12.017	9.897	(n/a)
Database (C:\asgluns\sg25)	0.009	0.004	12.787	10.722	(n/a)
Database (C:\asgluns\sg26)	0.009	0.004	12.167	10.180	(n/a)
Database (C:\asgluns\sg27)	0.009	0.004	12.785	10.573	(n/a)
Database (C:\asgluns\sg28)	0.009	0.004	12.689	10.405	(n/a)
Database (C:\asgluns\sg29)	0.009	0.004	12.761	10.501	(n/a)
Database (C:\asgluns\sg30)	0.009	0.004	12.246	10.280	(n/a)
Database (C:\asgluns\sg31)	0.009	0.004	12.028	9.943	(n/a)
Database (C:\asgluns\sg32)	0.009	0.004	12.918	10.833	(n/a)
Database (C:\asgluns\sg33)	0.009	0.004	12.341	10.108	(n/a)
Database (C:\asgluns\sg34)	0.009	0.004	12.470	10.386	(n/a)
Database (C:\asgluns\sg35)	0.009	0.004	12.872	10.724	(n/a)
Database (C:\asgluns\sg36)	0.009	0.004	12.227	10.122	(n/a)
Database (C:\asgluns\sg37)	0.009	0.004	12.656	10.515	(n/a)
Database (C:\asgluns\sg38)	0.009	0.004	12.233	10.343	(n/a)
Database (C:\asgluns\sg39)	0.009	0.004	12.484	10.333	(n/a)
Database (C:\asgluns\sg40)	0.009	0.004	12.433	10.607	(n/a)
Database (C:\asgluns\sg41)	0.009	0.004	12.530	10.424	(n/a)
Database (C:\asgluns\sg42)	0.009	0.004	12.629	10.626	(n/a)
Database (C:\asgluns\sg43)	0.009	0.004	12.269	10.460	(n/a)
Database (C:\asgluns\sg44)	0.009	0.004	12.126	10.055	(n/a)
Database	0.009	0.004	12.380	10.130	(n/a)

(C:\asgluns\sg45)					
Database (C:\asgluns\sg46)	0.009	0.004	12.329	10.150	(n/a)
Database (C:\asgluns\sg47)	0.009	0.004	12.269	10.399	(n/a)
Database (C:\asgluns\sg48)	0.009	0.004	12.409	10.574	(n/a)
Log (C:\alogluns\log1)	0.000	0.002	0.000	8.432	4144.701
Log (C:\alogluns\log2)	0.000	0.002	0.000	8.126	4119.994
Log (C:\alogluns\log3)	0.000	0.002	0.000	8.191	3964.235
Log (C:\alogluns\log4)	0.000	0.002	0.000	8.773	4003.390
Log (C:\alogluns\log5)	0.000	0.002	0.000	8.812	4069.546
Log (C:\alogluns\log6)	0.000	0.002	0.000	8.545	4026.205
Log (C:\alogluns\log7)	0.000	0.002	0.000	8.708	4016.572
Log (C:\alogluns\log8)	0.000	0.002	0.000	8.568	4006.064
Log (C:\alogluns\log9)	0.000	0.002	0.000	8.489	4087.019
Log (C:\alogluns\log10)	0.000	0.002	0.000	8.418	4037.828
Log (C:\alogluns\log11)	0.000	0.002	0.000	8.636	4001.694
Log (C:\alogluns\log12)	0.000	0.002	0.000	8.484	3971.030
Log (C:\alogluns\log13)	0.000	0.002	0.000	8.569	4051.503
Log (C:\alogluns\log14)	0.000	0.002	0.000	8.742	4111.112
Log (C:\alogluns\log15)	0.000	0.002	0.000	8.351	4076.292
Log (C:\alogluns\log16)	0.000	0.002	0.000	8.351	4022.305
Log (C:\alogluns\log17)	0.000	0.002	0.000	8.593	3892.319
Log (C:\alogluns\log18)	0.000	0.002	0.000	8.754	4227.121
Log (C:\alogluns\log19)	0.000	0.002	0.000	8.432	4081.249
Log (C:\alogluns\log20)	0.000	0.002	0.000	8.513	3989.296
Log (C:\alogluns\log21)	0.000	0.002	0.000	8.113	4022.292
Log (C:\alogluns\log22)	0.000	0.002	0.000	8.450	4107.125
Log (C:\alogluns\log23)	0.000	0.002	0.000	8.331	4122.673
Log (C:\alogluns\log24)	0.000	0.002	0.000	8.119	4114.062
Log (C:\alogluns\log25)	0.000	0.002	0.000	8.581	4078.786
Log (C:\alogluns\log26)	0.000	0.002	0.000	8.321	4104.327
Log (C:\alogluns\log27)	0.000	0.002	0.000	8.549	3821.039
Log (C:\alogluns\log28)	0.000	0.002	0.000	8.474	3939.583
Log (C:\alogluns\log29)	0.000	0.002	0.000	8.633	4004.608
Log (C:\alogluns\log30)	0.000	0.002	0.000	8.419	4009.533
Log (C:\alogluns\log31)	0.000	0.002	0.000	8.253	4004.036

Log (C:\alogluns\log32)	0.000	0.002	0.000	8.790	3901.708
Log (C:\alogluns\log33)	0.000	0.002	0.000	8.320	3866.057
Log (C:\alogluns\log34)	0.000	0.002	0.000	8.380	4072.134
Log (C:\alogluns\log35)	0.000	0.002	0.000	8.673	4043.184
Log (C:\alogluns\log36)	0.000	0.002	0.000	8.246	4002.602
Log (C:\alogluns\log37)	0.000	0.002	0.000	8.513	3924.318
Log (C:\alogluns\log38)	0.000	0.002	0.000	8.574	4069.392
Log (C:\alogluns\log39)	0.000	0.002	0.000	8.371	4021.469
Log (C:\alogluns\log40)	0.000	0.002	0.000	8.669	4184.014
Log (C:\alogluns\log41)	0.000	0.002	0.000	8.510	4189.612
Log (C:\alogluns\log42)	0.000	0.002	0.000	8.623	4100.588
Log (C:\alogluns\log43)	0.000	0.002	0.000	8.585	4094.271
Log (C:\alogluns\log44)	0.000	0.002	0.000	8.410	4068.934
Log (C:\alogluns\log45)	0.000	0.002	0.000	8.167	4009.825
Log (C:\alogluns\log46)	0.000	0.002	0.000	8.417	3930.018
Log (C:\alogluns\log47)	0.000	0.002	0.000	8.497	4147.892
Log (C:\alogluns\log48)	0.000	0.002	0.000	8.568	4155.818

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	0.641	0.375	1.092
Available MBytes	17870.766	17699.000	19079.000
Free System Page Table Entries	33563824.950	33563499.000	33564009.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	140163037.724	140161024.000	140169216.000
Pool Paged Bytes	194178180.820	194174976.000	194183168.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

```

11/9/2009 7:33:33 AM -- Jetstress testing begins ...
11/9/2009 7:33:33 AM -- Prepare testing begins ...
11/9/2009 7:34:22 AM -- Attaching databases ...
11/9/2009 7:34:22 AM -- Prepare testing ends.
11/9/2009 7:34:22 AM -- Dispatching transactions begins ...
11/9/2009 7:34:22 AM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0 GB)
11/9/2009 7:34:22 AM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8 MB)
11/9/2009 7:35:14 AM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.05 seconds/read).
11/9/2009 7:35:14 AM -- Log write latency thresholds: (average: 0.01 seconds/write,
maximum: 0.05 seconds/write).
11/9/2009 7:35:19 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%, Replaces
5%, Reads 25%, Lazy Commits 55%.
11/9/2009 7:35:19 AM -- Performance logging begins (interval: 15000 ms).

```

11/9/2009 7:35:19 AM -- Attaining prerequisites:
 11/9/2009 9:00:45 AM -- \MSEExchange Database(Jetstresswin)\Database Cache Size, Last:
 11597240000.0 (Lower bound: 11596410000.0, upper bound: none)
 11/9/2009 11:00:45 AM -- Performance logging ends.
 11/9/2009 6:41:10 PM -- JetInterop batch transaction stats: 16442, 16386, 16260,
 16634, 16667, 16600, 16673, 16693, 16594, 16472, 16611, 16376, 16604, 16683, 16407,
 16534, 16323, 16662, 16549, 16747, 16436, 16392, 16438, 16600, 16640, 16448, 16490,
 16435, 16484, 16617, 16326, 16591, 16526, 16432, 16531, 16206, 16514, 16487, 16373,
 16587, 16552, 16498, 16481, 16587, 16557, 16459, 16454, and 16339.
 11/9/2009 6:41:11 PM -- Dispatching transactions ends.
 11/9/2009 6:41:11 PM -- Shutting down databases ...
 11/9/2009 6:41:21 PM -- Instance6512.1 (complete), Instance6512.2 (complete),
 Instance6512.3 (complete), Instance6512.4 (complete), Instance6512.5 (complete),
 Instance6512.6 (complete), Instance6512.7 (complete), Instance6512.8 (complete),
 Instance6512.9 (complete), Instance6512.10 (complete), Instance6512.11 (complete),
 Instance6512.12 (complete), Instance6512.13 (complete), Instance6512.14 (complete),
 Instance6512.15 (complete), Instance6512.16 (complete), Instance6512.17 (complete),
 Instance6512.18 (complete), Instance6512.19 (complete), Instance6512.20 (complete),
 Instance6512.21 (complete), Instance6512.22 (complete), Instance6512.23 (complete),
 Instance6512.24 (complete), Instance6512.25 (complete), Instance6512.26 (complete),
 Instance6512.27 (complete), Instance6512.28 (complete), Instance6512.29 (complete),
 Instance6512.30 (complete), Instance6512.31 (complete), Instance6512.32 (complete),
 Instance6512.33 (complete), Instance6512.34 (complete), Instance6512.35 (complete),
 Instance6512.36 (complete), Instance6512.37 (complete), Instance6512.38 (complete),
 Instance6512.39 (complete), Instance6512.40 (complete), Instance6512.41 (complete),
 Instance6512.42 (complete), Instance6512.43 (complete), Instance6512.44 (complete),
 Instance6512.45 (complete), Instance6512.46 (complete), Instance6512.47 (complete),
 and Instance6512.48 (complete)
 11/9/2009 6:41:22 PM -- Performance logging begins (interval: 30000 ms).
 11/9/2009 6:41:22 PM -- Verifying database checksums ...
 11/10/2009 8:34:50 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), and C:\asgluns\sg48 (100% processed)
 11/10/2009 8:34:51 AM -- Performance logging ends.
 11/10/2009 8:34:51 AM -- C:\ESRP HDP_1GB\Performance
 Test\DBChecksum_2009_11_9_18_41_21.blg has 1664 samples.
 11/10/2009 8:46:31 AM -- C:\ESRP HDP_1GB\Performance
 Test\DBChecksum_2009_11_9_18_41_21.html is saved.
 11/10/2009 8:46:31 AM -- Verifying log checksums ...
 11/10/2009 8:46:43 AM -- C:\alogluns\log1 (3 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 (3 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),


```

11/10/2009 8:47:32 AM -- Volume C:\alogluns\log33 has 0.0019 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log33 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log34 has 0.0020 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log34 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log35 has 0.0020 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log35 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log36 has 0.0020 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log36 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log37 has 0.0021 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log37 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log38 has 0.0021 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log38 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log39 has 0.0020 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log39 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log40 has 0.0021 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log40 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log41 has 0.0019 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log41 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log42 has 0.0019 for Avg. Disk sec/write.
11/10/2009 8:47:32 AM -- Volume C:\alogluns\log42 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log43 has 0.0019 for Avg. Disk sec/write.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log43 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log44 has 0.0019 for Avg. Disk sec/write.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log44 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log45 has 0.0021 for Avg. Disk sec/write.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log45 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log46 has 0.0021 for Avg. Disk sec/write.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log46 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log47 has 0.0021 for Avg. Disk sec/write.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log47 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log48 has 0.0021 for Avg. Disk sec/write.
11/10/2009 8:47:33 AM -- Volume C:\alogluns\log48 has 0.0000 for Avg. Disk sec/Read.
11/10/2009 8:47:33 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
11/10/2009 8:47:33 AM -- Test has 0 Database Page Fault Stalls/sec samples higher
than 0.
11/10/2009 8:47:33 AM -- C:\ESRP HDP_1GB\Performance
Test\Performance_2009_11_9_7_35_14.xml has 477 samples queried.

```

Performance Test Database Checksums Result: SUN141

Checksum Statistics - All

Database	Seen pages	Bad pages	Correctable pages	Wrong page no pages	File length / seconds taken
C:\asgluns\sg1\Jetstress1.edb	8346946	0	0	0	65210 MBytes / 50008 seconds
C:\asgluns\sg2\Jetstress1.edb	8345922	0	0	0	65202 MBytes / 49953 seconds
C:\asgluns\sg3\Jetstress1.edb	8348226	0	0	0	65220 MBytes / 49948 seconds
C:\asgluns\sg4\Jetstress1.edb	8346178	0	0	0	65204 MBytes / 49941 seconds
C:\asgluns\sg5\Jetstress1.edb	8348738	0	0	0	65224 MBytes / 48182 seconds
C:\asgluns\sg6\Jetstress1.edb	8346434	0	0	0	65206 MBytes / 48171 seconds
C:\asgluns\sg7\Jetstress1.edb	8350018	0	0	0	65234 MBytes / 48178 seconds

C:\asgluns\sg8\Jetstress1.edb	8347970	0	0	0	65218 MBytes / 48167 seconds
C:\asgluns\sg9\Jetstress1.edb	8345922	0	0	0	65202 MBytes / 49176 seconds
C:\asgluns\sg10\Jetstress1.edb	8348738	0	0	0	65224 MBytes / 49203 seconds
C:\asgluns\sg11\Jetstress1.edb	8347458	0	0	0	65214 MBytes / 49190 seconds
C:\asgluns\sg12\Jetstress1.edb	8346434	0	0	0	65206 MBytes / 49058 seconds
C:\asgluns\sg13\Jetstress1.edb	8345922	0	0	0	65202 MBytes / 48055 seconds
C:\asgluns\sg14\Jetstress1.edb	8347458	0	0	0	65214 MBytes / 48019 seconds
C:\asgluns\sg15\Jetstress1.edb	8345666	0	0	0	65200 MBytes / 48052 seconds
C:\asgluns\sg16\Jetstress1.edb	8347202	0	0	0	65212 MBytes / 48120 seconds
C:\asgluns\sg17\Jetstress1.edb	8344130	0	0	0	65188 MBytes / 49900 seconds
C:\asgluns\sg18\Jetstress1.edb	8347714	0	0	0	65216 MBytes / 49906 seconds
C:\asgluns\sg19\Jetstress1.edb	8346178	0	0	0	65204 MBytes / 49895 seconds
C:\asgluns\sg20\Jetstress1.edb	8347714	0	0	0	65216 MBytes / 49891 seconds
C:\asgluns\sg21\Jetstress1.edb	8344130	0	0	0	65188 MBytes / 47862 seconds
C:\asgluns\sg22\Jetstress1.edb	8344386	0	0	0	65190 MBytes / 47831 seconds
C:\asgluns\sg23\Jetstress1.edb	8347458	0	0	0	65214 MBytes / 47833 seconds
C:\asgluns\sg24\Jetstress1.edb	8348226	0	0	0	65220 MBytes / 47865 seconds
C:\asgluns\sg25\Jetstress1.edb	8344898	0	0	0	65194 MBytes / 49199 seconds
C:\asgluns\sg26\Jetstress1.edb	8346690	0	0	0	65208 MBytes / 49194 seconds
C:\asgluns\sg27\Jetstress1.edb	8347714	0	0	0	65216 MBytes / 49189 seconds
C:\asgluns\sg28\Jetstress1.edb	8347202	0	0	0	65212 MBytes / 49203 seconds
C:\asgluns\sg29\Jetstress1.edb	8347970	0	0	0	65218 MBytes / 48054 seconds
C:\asgluns\sg30\Jetstress1.edb	8345154	0	0	0	65196 MBytes / 48036

					seconds
C:\asgluns\sg31\Jetstress1.edb	8345666	0	0	0	65200 MBytes / 47995 seconds
C:\asgluns\sg32\Jetstress1.edb	8348226	0	0	0	65220 MBytes / 47979 seconds
C:\asgluns\sg33\Jetstress1.edb	8344642	0	0	0	65192 MBytes / 49835 seconds
C:\asgluns\sg34\Jetstress1.edb	8345666	0	0	0	65200 MBytes / 49817 seconds
C:\asgluns\sg35\Jetstress1.edb	8347714	0	0	0	65216 MBytes / 49826 seconds
C:\asgluns\sg36\Jetstress1.edb	8346690	0	0	0	65208 MBytes / 49838 seconds
C:\asgluns\sg37\Jetstress1.edb	8345922	0	0	0	65202 MBytes / 48182 seconds
C:\asgluns\sg38\Jetstress1.edb	8347458	0	0	0	65214 MBytes / 48180 seconds
C:\asgluns\sg39\Jetstress1.edb	8344386	0	0	0	65190 MBytes / 48181 seconds
C:\asgluns\sg40\Jetstress1.edb	8345666	0	0	0	65200 MBytes / 48169 seconds
C:\asgluns\sg41\Jetstress1.edb	8348482	0	0	0	65222 MBytes / 49472 seconds
C:\asgluns\sg42\Jetstress1.edb	8345666	0	0	0	65200 MBytes / 49481 seconds
C:\asgluns\sg43\Jetstress1.edb	8346434	0	0	0	65206 MBytes / 49458 seconds
C:\asgluns\sg44\Jetstress1.edb	8345666	0	0	0	65200 MBytes / 49483 seconds
C:\asgluns\sg45\Jetstress1.edb	8347458	0	0	0	65214 MBytes / 47899 seconds
C:\asgluns\sg46\Jetstress1.edb	8344642	0	0	0	65192 MBytes / 47889 seconds
C:\asgluns\sg47\Jetstress1.edb	8345410	0	0	0	65198 MBytes / 47898 seconds
C:\asgluns\sg48\Jetstress1.edb	8346434	0	0	0	65206 MBytes / 47913 seconds
(Sum)	400637024	0	0	0	3129976 MBytes / 50008 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	0.830	0.001	20.616	0.000
C:\asgluns\sg2	0.815	0.001	20.881	0.000

C:\asgluns\sg3	0.819	0.001	20.786	0.000
C:\asgluns\sg4	0.815	0.000	20.809	0.000
C:\asgluns\sg5	0.784	0.002	21.649	0.000
C:\asgluns\sg6	0.785	0.001	21.646	0.000
C:\asgluns\sg7	0.785	0.000	21.652	0.000
C:\asgluns\sg8	0.784	0.002	21.654	0.000
C:\asgluns\sg9	0.797	0.001	21.207	0.000
C:\asgluns\sg10	0.798	0.000	21.198	0.000
C:\asgluns\sg11	0.798	0.000	21.199	0.000
C:\asgluns\sg12	0.796	0.001	21.254	0.000
C:\asgluns\sg13	0.784	0.001	21.691	0.000
C:\asgluns\sg14	0.785	0.002	21.723	0.000
C:\asgluns\sg15	0.786	0.001	21.694	0.000
C:\asgluns\sg16	0.787	0.000	21.618	0.000
C:\asgluns\sg17	0.808	0.001	20.880	0.000
C:\asgluns\sg18	0.808	0.002	20.870	0.000
C:\asgluns\sg19	0.809	0.000	20.898	0.000
C:\asgluns\sg20	0.808	0.001	20.856	0.000
C:\asgluns\sg21	0.791	0.002	21.787	0.000
C:\asgluns\sg22	0.785	0.002	21.802	0.000
C:\asgluns\sg23	0.785	0.001	21.817	0.000
C:\asgluns\sg24	0.784	0.000	21.795	0.000
C:\asgluns\sg25	0.797	0.001	21.199	0.000
C:\asgluns\sg26	0.797	0.000	21.200	0.000
C:\asgluns\sg27	0.797	0.001	21.206	0.000
C:\asgluns\sg28	0.797	0.002	21.201	0.000
C:\asgluns\sg29	0.786	0.002	21.699	0.000
C:\asgluns\sg30	0.789	0.002	21.710	0.000
C:\asgluns\sg31	0.787	0.002	21.734	0.000
C:\asgluns\sg32	0.787	0.002	21.748	0.000
C:\asgluns\sg33	0.798	0.002	20.917	0.000
C:\asgluns\sg34	0.799	0.001	20.919	0.000
C:\asgluns\sg35	0.799	0.001	20.942	0.000
C:\asgluns\sg36	0.799	0.001	20.916	0.000
C:\asgluns\sg37	0.782	0.001	21.631	0.000
C:\asgluns\sg38	0.783	0.001	21.641	0.000
C:\asgluns\sg39	0.785	0.002	21.624	0.000

C:\asgluns\sg40	0.783	0.001	21.653	0.000
C:\asgluns\sg41	0.797	0.002	21.090	0.000
C:\asgluns\sg42	0.799	0.002	21.065	0.000
C:\asgluns\sg43	0.798	0.002	21.082	0.000
C:\asgluns\sg44	0.799	0.002	21.053	0.000
C:\asgluns\sg45	0.788	0.001	21.787	0.000
C:\asgluns\sg46	0.781	0.001	21.787	0.000
C:\asgluns\sg47	0.782	0.000	21.783	0.000
C:\asgluns\sg48	0.781	0.001	21.777	0.000

Memory System Performance of Checksum

Counter	Average	Minimum	Maximum
% Processor Time	0.527	0.166	0.932
Available MBytes	30434.443	30303.000	30546.000
Free System Page Table Entries	33561331.663	33560914.000	33564529.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	140159869.538	140152832.000	140206080.000
Pool Paged Bytes	210901038.769	193605632.000	231641088.000

Test Log

```

11/9/2009 7:33:33 AM -- Jetstress testing begins ...
11/9/2009 7:33:33 AM -- Prepare testing begins ...
11/9/2009 7:34:22 AM -- Attaching databases ...
11/9/2009 7:34:22 AM -- Prepare testing ends.
11/9/2009 7:34:22 AM -- Dispatching transactions begins ...
11/9/2009 7:34:22 AM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0 GB)
11/9/2009 7:34:22 AM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8 MB)
11/9/2009 7:35:14 AM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.05 seconds/read).
11/9/2009 7:35:14 AM -- Log write latency thresholds: (average: 0.01 seconds/write,
maximum: 0.05 seconds/write).
11/9/2009 7:35:19 AM -- operation mix: Sessions 2, Inserts 40%, Deletes 30%, Replaces
5%, Reads 25%, Lazy Commits 55%.
11/9/2009 7:35:19 AM -- Performance logging begins (interval: 15000 ms).
11/9/2009 7:35:19 AM -- Attaining prerequisites:
11/9/2009 9:00:45 AM -- \MSEExchange Database(Jetstresswin)\Database Cache Size, Last:
11597240000.0 (lower bound: 11596410000.0, upper bound: none)
11/9/2009 11:00:45 AM -- Performance logging ends.
11/9/2009 6:41:10 PM -- JetInterop batch transaction stats: 16442, 16386, 16260,
16634, 16667, 16600, 16673, 16693, 16594, 16472, 16611, 16376, 16604, 16683, 16407,
16534, 16323, 16662, 16549, 16747, 16436, 16392, 16438, 16600, 16640, 16448, 16490,
16435, 16484, 16617, 16326, 16591, 16526, 16432, 16531, 16206, 16514, 16487, 16373,
16587, 16552, 16498, 16481, 16587, 16557, 16459, 16454, and 16339.
11/9/2009 6:41:11 PM -- Dispatching transactions ends.
11/9/2009 6:41:11 PM -- Shutting down databases ...
11/9/2009 6:41:21 PM -- Instance6512.1 (complete), Instance6512.2 (complete),
Instance6512.3 (complete), Instance6512.4 (complete), Instance6512.5 (complete),
Instance6512.6 (complete), Instance6512.7 (complete), Instance6512.8 (complete),
Instance6512.9 (complete), Instance6512.10 (complete), Instance6512.11 (complete),

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Instance6512.12 (complete), Instance6512.13 (complete), Instance6512.14 (complete), Instance6512.15 (complete), Instance6512.16 (complete), Instance6512.17 (complete), Instance6512.18 (complete), Instance6512.19 (complete), Instance6512.20 (complete), Instance6512.21 (complete), Instance6512.22 (complete), Instance6512.23 (complete), Instance6512.24 (complete), Instance6512.25 (complete), Instance6512.26 (complete), Instance6512.27 (complete), Instance6512.28 (complete), Instance6512.29 (complete), Instance6512.30 (complete), Instance6512.31 (complete), Instance6512.32 (complete), Instance6512.33 (complete), Instance6512.34 (complete), Instance6512.35 (complete), Instance6512.36 (complete), Instance6512.37 (complete), Instance6512.38 (complete), Instance6512.39 (complete), Instance6512.40 (complete), Instance6512.41 (complete), Instance6512.42 (complete), Instance6512.43 (complete), Instance6512.44 (complete), Instance6512.45 (complete), Instance6512.46 (complete), Instance6512.47 (complete), and Instance6512.48 (complete)

11/9/2009 6:41:22 PM -- Performance logging begins (interval: 30000 ms).

11/9/2009 6:41:22 PM -- Verifying database checksums ...

11/10/2009 8:34:50 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), and C:\asgluns\sg48 (100% processed)

11/10/2009 8:34:51 AM -- Performance logging ends.

11/10/2009 8:34:51 AM -- C:\ESRP HDP_1GB\Performance Test\DBChecksum_2009_11_9_18_41_21.blg has 1664 samples.

Stress Test Database Performance Result: SUN141

Test Summary

Overall Test Result	Pass
Machine Name	SUN141
Test Description	
Test Start Time	11/10/2009 9:24:42 AM
Test End Time	11/11/2009 12:05:11 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\Stress Test\Stress_2009_11_10_9_26_23.blg C:\ESRP HDP_1GB\Stress Test\DBChecksum_2009_11_11_12_5_11.blg

Database Sizing and Throughput

Achieved I/O per Second	1096.403
Target I/O per Second	960
Initial database size	3282018500608
Final database size	3334153699328
Database files (count)	48

Jetstress System Parameters

Thread count	2 (per storage group)
Log buffers	9000
Minimum database cache	1536.0 MB
Maximum database cache	12288.0 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)	0.009	0.004	12.590	10.272	(n/a)
Database (C:\asgluns\sg2)	0.009	0.004	12.450	10.056	(n/a)
Database (C:\asgluns\sg3)	0.009	0.004	12.570	10.207	(n/a)
Database (C:\asgluns\sg4)	0.009	0.004	12.653	10.269	(n/a)
Database (C:\asgluns\sg5)	0.009	0.004	12.585	10.198	(n/a)
Database (C:\asgluns\sg6)	0.009	0.004	12.687	10.377	(n/a)
Database (C:\asgluns\sg7)	0.009	0.004	12.604	10.219	(n/a)
Database (C:\asgluns\sg8)	0.009	0.004	12.498	10.244	(n/a)
Database (C:\asgluns\sg9)	0.009	0.004	12.629	10.280	(n/a)

Database (C:\asgluns\sg10)	0.009	0.004	12.634	10.280	(n/a)
Database (C:\asgluns\sg11)	0.009	0.004	12.574	10.183	(n/a)
Database (C:\asgluns\sg12)	0.009	0.004	12.634	10.274	(n/a)
Database (C:\asgluns\sg13)	0.009	0.004	12.441	10.188	(n/a)
Database (C:\asgluns\sg14)	0.009	0.004	12.661	10.354	(n/a)
Database (C:\asgluns\sg15)	0.009	0.004	12.477	10.171	(n/a)
Database (C:\asgluns\sg16)	0.009	0.004	12.575	10.195	(n/a)
Database (C:\asgluns\sg17)	0.009	0.004	12.576	10.281	(n/a)
Database (C:\asgluns\sg18)	0.009	0.004	12.609	10.303	(n/a)
Database (C:\asgluns\sg19)	0.009	0.004	12.551	10.167	(n/a)
Database (C:\asgluns\sg20)	0.009	0.004	12.605	10.246	(n/a)
Database (C:\asgluns\sg21)	0.009	0.004	12.613	10.321	(n/a)
Database (C:\asgluns\sg22)	0.009	0.004	12.530	10.212	(n/a)
Database (C:\asgluns\sg23)	0.009	0.004	12.662	10.253	(n/a)
Database (C:\asgluns\sg24)	0.009	0.004	12.566	10.119	(n/a)
Database (C:\asgluns\sg25)	0.009	0.004	12.392	10.062	(n/a)
Database (C:\asgluns\sg26)	0.009	0.004	12.605	10.257	(n/a)
Database (C:\asgluns\sg27)	0.009	0.004	12.539	10.170	(n/a)
Database (C:\asgluns\sg28)	0.009	0.004	12.674	10.356	(n/a)
Database (C:\asgluns\sg29)	0.009	0.004	12.620	10.329	(n/a)
Database (C:\asgluns\sg30)	0.009	0.004	12.721	10.437	(n/a)
Database (C:\asgluns\sg31)	0.009	0.004	12.727	10.327	(n/a)
Database	0.009	0.004	12.555	10.207	(n/a)

(C:\asgluns\sg32)					
Database (C:\asgluns\sg33)	0.009	0.004	12.597	10.287	(n/a)
Database (C:\asgluns\sg34)	0.009	0.004	12.577	10.248	(n/a)
Database (C:\asgluns\sg35)	0.009	0.004	12.352	10.113	(n/a)
Database (C:\asgluns\sg36)	0.009	0.004	12.530	10.277	(n/a)
Database (C:\asgluns\sg37)	0.009	0.004	12.492	10.171	(n/a)
Database (C:\asgluns\sg38)	0.009	0.004	12.618	10.303	(n/a)
Database (C:\asgluns\sg39)	0.009	0.004	12.696	10.403	(n/a)
Database (C:\asgluns\sg40)	0.009	0.004	12.570	10.337	(n/a)
Database (C:\asgluns\sg41)	0.009	0.004	12.672	10.307	(n/a)
Database (C:\asgluns\sg42)	0.009	0.004	12.596	10.324	(n/a)
Database (C:\asgluns\sg43)	0.009	0.004	12.568	10.204	(n/a)
Database (C:\asgluns\sg44)	0.009	0.004	12.667	10.397	(n/a)
Database (C:\asgluns\sg45)	0.009	0.004	12.722	10.399	(n/a)
Database (C:\asgluns\sg46)	0.009	0.004	12.582	10.288	(n/a)
Database (C:\asgluns\sg47)	0.009	0.004	12.564	10.236	(n/a)
Database (C:\asgluns\sg48)	0.009	0.004	12.467	10.221	(n/a)
Log (C:\alogluns\log1)	0.000	0.002	0.000	8.394	4012.218
Log (C:\alogluns\log2)	0.000	0.002	0.000	8.248	4031.538
Log (C:\alogluns\log3)	0.000	0.002	0.000	8.377	4021.076
Log (C:\alogluns\log4)	0.000	0.002	0.000	8.388	4013.823
Log (C:\alogluns\log5)	0.000	0.002	0.000	8.338	4026.922
Log (C:\alogluns\log6)	0.000	0.002	0.000	8.495	4013.130
Log (C:\alogluns\log7)	0.000	0.002	0.000	8.365	4028.656
Log (C:\alogluns\log8)	0.000	0.002	0.000	8.340	4057.282
Log (C:\alogluns\log9)	0.000	0.002	0.000	8.394	4055.652
Log (C:\alogluns\log10)	0.000	0.002	0.000	8.387	4025.591

Log (C:\alogluns\log11)	0.000	0.002	0.000	8.289	3975.814
Log (C:\alogluns\log12)	0.000	0.002	0.000	8.355	4019.129
Log (C:\alogluns\log13)	0.000	0.002	0.000	8.353	4006.531
Log (C:\alogluns\log14)	0.000	0.002	0.000	8.439	4027.362
Log (C:\alogluns\log15)	0.000	0.002	0.000	8.324	4012.591
Log (C:\alogluns\log16)	0.000	0.002	0.000	8.349	4041.292
Log (C:\alogluns\log17)	0.000	0.002	0.000	8.375	4014.043
Log (C:\alogluns\log18)	0.000	0.002	0.000	8.391	4034.476
Log (C:\alogluns\log19)	0.000	0.002	0.000	8.301	3997.983
Log (C:\alogluns\log20)	0.000	0.002	0.000	8.355	4019.697
Log (C:\alogluns\log21)	0.000	0.002	0.000	8.431	4032.889
Log (C:\alogluns\log22)	0.000	0.002	0.000	8.339	4035.960
Log (C:\alogluns\log23)	0.000	0.002	0.000	8.324	4083.930
Log (C:\alogluns\log24)	0.000	0.002	0.000	8.260	4037.064
Log (C:\alogluns\log25)	0.000	0.002	0.000	8.245	3997.968
Log (C:\alogluns\log26)	0.000	0.002	0.000	8.392	4028.642
Log (C:\alogluns\log27)	0.000	0.002	0.000	8.296	4023.640
Log (C:\alogluns\log28)	0.000	0.002	0.000	8.445	4012.129
Log (C:\alogluns\log29)	0.000	0.002	0.000	8.396	4053.652
Log (C:\alogluns\log30)	0.000	0.002	0.000	8.513	4012.040
Log (C:\alogluns\log31)	0.000	0.002	0.000	8.394	4029.406
Log (C:\alogluns\log32)	0.000	0.002	0.000	8.345	4006.806
Log (C:\alogluns\log33)	0.000	0.002	0.000	8.373	4033.722
Log (C:\alogluns\log34)	0.000	0.002	0.000	8.345	4021.069
Log (C:\alogluns\log35)	0.000	0.002	0.000	8.301	4049.262
Log (C:\alogluns\log36)	0.000	0.002	0.000	8.395	4030.057
Log (C:\alogluns\log37)	0.000	0.002	0.000	8.352	4017.357
Log (C:\alogluns\log38)	0.000	0.002	0.000	8.411	4050.740
Log (C:\alogluns\log39)	0.000	0.002	0.000	8.457	4055.213
Log (C:\alogluns\log40)	0.000	0.002	0.000	8.453	4048.167
Log (C:\alogluns\log41)	0.000	0.002	0.000	8.378	4042.462
Log (C:\alogluns\log42)	0.000	0.002	0.000	8.439	4047.131
Log (C:\alogluns\log43)	0.000	0.002	0.000	8.314	3998.603
Log (C:\alogluns\log44)	0.000	0.002	0.000	8.460	4030.357
Log (C:\alogluns\log45)	0.000	0.002	0.000	8.454	4072.172
Log (C:\alogluns\log46)	0.000	0.002	0.000	8.393	4020.297
Log (C:\alogluns\log47)	0.000	0.002	0.000	8.302	3991.249

Host System Performance

<i>Counter</i>	<i>Average</i>	<i>Minimum</i>	<i>Maximum</i>
% Processor Time	0.648	0.311	1.280
Available MBytes	17761.429	17638.000	19017.000
Free System Page Table Entries	33563759.799	33563346.000	33564026.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	140130861.116	140128256.000	140165120.000
Pool Paged Bytes	197531797.017	197091328.000	199041024.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

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11/10/2009 9:24:42 AM -- Jetstress testing begins ...
11/10/2009 9:24:42 AM -- Prepare testing begins ...
11/10/2009 9:25:31 AM -- Attaching databases ...
11/10/2009 9:25:31 AM -- Prepare testing ends.
11/10/2009 9:25:31 AM -- Dispatching transactions begins ...
11/10/2009 9:25:31 AM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0 GB)
11/10/2009 9:25:31 AM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8 MB)
11/10/2009 9:26:23 AM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.1 seconds/read).
11/10/2009 9:26:23 AM -- Log write latency thresholds: (average: 0.01 seconds/write,
maximum: 0.1 seconds/write).
11/10/2009 9:26:28 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
11/10/2009 9:26:28 AM -- Performance logging begins (interval: 15000 ms).
11/10/2009 9:26:28 AM -- Attaining prerequisites:
11/10/2009 10:52:17 AM -- \MSExchange Database(Jetstresswin)\Database Cache Size,
Last: 11596590000.0 (lower bound: 11596410000.0, upper bound: none)
11/11/2009 10:52:17 AM -- Performance logging ends.
11/11/2009 12:04:47 PM -- JetInterop batch transaction stats: 39001, 38800, 39003,
39173, 39076, 39468, 38942, 38957, 39238, 39057, 38980, 39178, 38877, 39364, 38829,
39194, 39123, 39351, 38906, 38996, 39413, 38923, 38955, 38749, 38782, 39379, 38990,
39255, 39002, 39537, 39356, 38998, 39067, 39219, 38722, 39069, 38908, 39313, 39257,
39174, 38985, 39174, 38935, 39354, 39526, 39160, 38879, and 38879.
11/11/2009 12:04:48 PM -- Dispatching transactions ends.
11/11/2009 12:04:48 PM -- Shutting down databases ...
11/11/2009 12:05:11 PM -- Instance6496.1 (complete), Instance6496.2 (complete),
Instance6496.3 (complete), Instance6496.4 (complete), Instance6496.5 (complete),
Instance6496.6 (complete), Instance6496.7 (complete), Instance6496.8 (complete),
Instance6496.9 (complete), Instance6496.10 (complete), Instance6496.11 (complete),
Instance6496.12 (complete), Instance6496.13 (complete), Instance6496.14 (complete),
Instance6496.15 (complete), Instance6496.16 (complete), Instance6496.17 (complete),
Instance6496.18 (complete), Instance6496.19 (complete), Instance6496.20 (complete),
Instance6496.21 (complete), Instance6496.22 (complete), Instance6496.23 (complete),
Instance6496.24 (complete), Instance6496.25 (complete), Instance6496.26 (complete),
Instance6496.27 (complete), Instance6496.28 (complete), Instance6496.29 (complete),
Instance6496.30 (complete), Instance6496.31 (complete), Instance6496.32 (complete),
Instance6496.33 (complete), Instance6496.34 (complete), Instance6496.35 (complete),
Instance6496.36 (complete), Instance6496.37 (complete), Instance6496.38 (complete),
Instance6496.39 (complete), Instance6496.40 (complete), Instance6496.41 (complete),
Instance6496.42 (complete), Instance6496.43 (complete), Instance6496.44 (complete),
Instance6496.45 (complete), Instance6496.46 (complete), Instance6496.47 (complete),
and Instance6496.48 (complete)

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11/11/2009 12:05:12 PM -- Performance logging begins (interval: 30000 ms).
 11/11/2009 12:05:12 PM -- Verifying database checksums ...
 11/12/2009 2:17:57 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), and C:\asgluns\sg48 (100% processed)
 11/12/2009 2:17:57 AM -- Performance logging ends.
 11/12/2009 2:17:57 AM -- C:\ESRP HDP_1GB\Stress Test\DBChecksum_2009_11_11_12_5_11.blg has 1702 samples.
 11/12/2009 2:31:21 AM -- C:\ESRP HDP_1GB\Stress Test\DBChecksum_2009_11_11_12_5_11.html is saved.
 11/12/2009 2:31:21 AM -- Verifying log checksums ...
 11/12/2009 2:31:34 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 (3 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 (2 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), and C:\alogluns\log48 (2 logs passed)
 11/12/2009 2:31:34 AM -- C:\ESRP HDP_1GB\Stress Test\Stress_2009_11_10_9_26_23.blg has 6072 samples.
 11/12/2009 2:31:34 AM -- Creating test report ...
 11/12/2009 2:37:40 AM -- Volume C:\asgluns\sg1 has 0.0090 for Avg. Disk sec/Read.
 11/12/2009 2:37:40 AM -- Volume C:\asgluns\sg2 has 0.0089 for Avg. Disk sec/Read.
 11/12/2009 2:37:40 AM -- Volume C:\asgluns\sg3 has 0.0089 for Avg. Disk sec/Read.
 11/12/2009 2:37:40 AM -- Volume C:\asgluns\sg4 has 0.0088 for Avg. Disk sec/Read.
 11/12/2009 2:37:41 AM -- Volume C:\asgluns\sg5 has 0.0090 for Avg. Disk sec/Read.
 11/12/2009 2:37:41 AM -- Volume C:\asgluns\sg6 has 0.0089 for Avg. Disk sec/Read.
 11/12/2009 2:37:41 AM -- Volume C:\asgluns\sg7 has 0.0090 for Avg. Disk sec/Read.
 11/12/2009 2:37:41 AM -- Volume C:\asgluns\sg8 has 0.0090 for Avg. Disk sec/Read.
 11/12/2009 2:37:41 AM -- Volume C:\asgluns\sg9 has 0.0089 for Avg. Disk sec/Read.
 11/12/2009 2:37:41 AM -- Volume C:\asgluns\sg10 has 0.0089 for Avg. Disk sec/Read.

11/12/2009 2:37:47 AM -- Volume C:\alogluns\log47 has 0.0020 for Avg. Disk sec/write.
 11/12/2009 2:37:47 AM -- Volume C:\alogluns\log47 has 0.0000 for Avg. Disk sec/Read.
 11/12/2009 2:37:48 AM -- Volume C:\alogluns\log48 has 0.0020 for Avg. Disk sec/write.
 11/12/2009 2:37:48 AM -- Volume C:\alogluns\log48 has 0.0000 for Avg. Disk sec/Read.
 11/12/2009 2:37:48 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
 11/12/2009 2:37:48 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.
 11/12/2009 2:37:48 AM -- C:\ESRP HDP_1GB\Stress Test\Stress_2009_11_10_9_26_23.xml has 5730 samples queried.

Stress Test Database Checksums Result: SUN141

Checksum Statistics - All

Database	Seen pages	Bad pages	Correctable pages	Wrong page no pages	File length / seconds taken
C:\asgluns\sg1\Jetstress1.edb	8479810	0	0	0	66248 MBytes / 51164 seconds
C:\asgluns\sg2\Jetstress1.edb	8476738	0	0	0	66224 MBytes / 50833 seconds
C:\asgluns\sg3\Jetstress1.edb	8482370	0	0	0	66268 MBytes / 50844 seconds
C:\asgluns\sg4\Jetstress1.edb	8479042	0	0	0	66242 MBytes / 50947 seconds
C:\asgluns\sg5\Jetstress1.edb	8480834	0	0	0	66256 MBytes / 49258 seconds
C:\asgluns\sg6\Jetstress1.edb	8480066	0	0	0	66250 MBytes / 49247 seconds
C:\asgluns\sg7\Jetstress1.edb	8481346	0	0	0	66260 MBytes / 49206 seconds
C:\asgluns\sg8\Jetstress1.edb	8480066	0	0	0	66250 MBytes / 49210 seconds
C:\asgluns\sg9\Jetstress1.edb	8478786	0	0	0	66240 MBytes / 50737 seconds
C:\asgluns\sg10\Jetstress1.edb	8480322	0	0	0	66252 MBytes / 50680 seconds
C:\asgluns\sg11\Jetstress1.edb	8478274	0	0	0	66236 MBytes / 50683 seconds
C:\asgluns\sg12\Jetstress1.edb	8478786	0	0	0	66240 MBytes / 50705 seconds
C:\asgluns\sg13\Jetstress1.edb	8478530	0	0	0	66238 MBytes / 50054 seconds
C:\asgluns\sg14\Jetstress1.edb	8480578	0	0	0	66254 MBytes / 50059 seconds
C:\asgluns\sg15\Jetstress1.edb	8477762	0	0	0	66232 MBytes / 50042 seconds
C:\asgluns\sg16\Jetstress1.edb	8481602	0	0	0	66262 MBytes / 50040 seconds
C:\asgluns\sg17\Jetstress1.edb	8475970	0	0	0	66218 MBytes / 50828 seconds

C:\asgluns\sg18\Jetstress1.edb	8479810	0	0	0	66248 MBytes / 50804 seconds
C:\asgluns\sg19\Jetstress1.edb	8478018	0	0	0	66234 MBytes / 50794 seconds
C:\asgluns\sg20\Jetstress1.edb	8479554	0	0	0	66246 MBytes / 50653 seconds
C:\asgluns\sg21\Jetstress1.edb	8477762	0	0	0	66232 MBytes / 49464 seconds
C:\asgluns\sg22\Jetstress1.edb	8476994	0	0	0	66226 MBytes / 49460 seconds
C:\asgluns\sg23\Jetstress1.edb	8479554	0	0	0	66246 MBytes / 49438 seconds
C:\asgluns\sg24\Jetstress1.edb	8479298	0	0	0	66244 MBytes / 49466 seconds
C:\asgluns\sg25\Jetstress1.edb	8476738	0	0	0	66224 MBytes / 50767 seconds
C:\asgluns\sg26\Jetstress1.edb	8480834	0	0	0	66256 MBytes / 50758 seconds
C:\asgluns\sg27\Jetstress1.edb	8479042	0	0	0	66242 MBytes / 50775 seconds
C:\asgluns\sg28\Jetstress1.edb	8479298	0	0	0	66244 MBytes / 50765 seconds
C:\asgluns\sg29\Jetstress1.edb	8480322	0	0	0	66252 MBytes / 49831 seconds
C:\asgluns\sg30\Jetstress1.edb	8478530	0	0	0	66238 MBytes / 49835 seconds
C:\asgluns\sg31\Jetstress1.edb	8477250	0	0	0	66228 MBytes / 49914 seconds
C:\asgluns\sg32\Jetstress1.edb	8481346	0	0	0	66260 MBytes / 49910 seconds
C:\asgluns\sg33\Jetstress1.edb	8476994	0	0	0	66226 MBytes / 50595 seconds
C:\asgluns\sg34\Jetstress1.edb	8478274	0	0	0	66236 MBytes / 50631 seconds
C:\asgluns\sg35\Jetstress1.edb	8481090	0	0	0	66258 MBytes / 50568 seconds
C:\asgluns\sg36\Jetstress1.edb	8479298	0	0	0	66244 MBytes / 50517 seconds
C:\asgluns\sg37\Jetstress1.edb	8478274	0	0	0	66236 MBytes / 49104 seconds
C:\asgluns\sg38\Jetstress1.edb	8480322	0	0	0	66252 MBytes / 49042 seconds
C:\asgluns\sg39\Jetstress1.edb	8478018	0	0	0	66234 MBytes / 49011 seconds
C:\asgluns\sg40\Jetstress1.edb	8479810	0	0	0	66248 MBytes / 49010 seconds

					seconds
C:\asgluns\sg41\Jetstress1.edb	8481090	0	0	0	66258 MBytes / 50645 seconds
C:\asgluns\sg42\Jetstress1.edb	8480066	0	0	0	66250 MBytes / 50636 seconds
C:\asgluns\sg43\Jetstress1.edb	8477762	0	0	0	66232 MBytes / 50626 seconds
C:\asgluns\sg44\Jetstress1.edb	8478530	0	0	0	66238 MBytes / 50620 seconds
C:\asgluns\sg45\Jetstress1.edb	8481858	0	0	0	66264 MBytes / 49580 seconds
C:\asgluns\sg46\Jetstress1.edb	8478530	0	0	0	66238 MBytes / 49635 seconds
C:\asgluns\sg47\Jetstress1.edb	8475458	0	0	0	66214 MBytes / 49436 seconds
C:\asgluns\sg48\Jetstress1.edb	8480578	0	0	0	66254 MBytes / 49425 seconds
(Sum)	407001184	0	0	0	3179696 MBytes / 51165 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	0.824	0.001	20.613	0.000
C:\asgluns\sg2	0.811	0.001	20.841	0.000
C:\asgluns\sg3	0.812	0.001	20.845	0.000
C:\asgluns\sg4	0.813	0.001	20.800	0.000
C:\asgluns\sg5	0.791	0.001	21.522	0.000
C:\asgluns\sg6	0.792	0.001	21.522	0.000
C:\asgluns\sg7	0.791	0.001	21.550	0.000
C:\asgluns\sg8	0.791	0.000	21.544	0.000
C:\asgluns\sg9	0.804	0.001	20.898	0.000
C:\asgluns\sg10	0.805	0.001	20.896	0.000
C:\asgluns\sg11	0.806	0.001	20.879	0.000
C:\asgluns\sg12	0.805	0.002	20.890	0.000
C:\asgluns\sg13	0.803	0.001	21.140	0.000
C:\asgluns\sg14	0.805	0.001	21.112	0.000
C:\asgluns\sg15	0.805	0.002	21.162	0.000
C:\asgluns\sg16	0.803	0.000	21.177	0.000
C:\asgluns\sg17	0.808	0.001	20.841	0.000
C:\asgluns\sg18	0.808	0.001	20.868	0.000

C:\asgluns\sg19	0.808	0.002	20.866	0.000
C:\asgluns\sg20	0.806	0.001	20.927	0.000
C:\asgluns\sg21	0.790	0.001	21.425	0.000
C:\asgluns\sg22	0.791	0.001	21.380	0.000
C:\asgluns\sg23	0.791	0.001	21.435	0.000
C:\asgluns\sg24	0.789	0.001	21.417	0.000
C:\asgluns\sg25	0.811	0.001	20.833	0.000
C:\asgluns\sg26	0.812	0.002	20.872	0.000
C:\asgluns\sg27	0.817	0.001	20.811	0.000
C:\asgluns\sg28	0.812	0.001	20.843	0.000
C:\asgluns\sg29	0.797	0.000	21.269	0.000
C:\asgluns\sg30	0.799	0.000	21.257	0.000
C:\asgluns\sg31	0.800	0.001	21.226	0.000
C:\asgluns\sg32	0.800	0.000	21.243	0.000
C:\asgluns\sg33	0.804	0.000	20.943	0.000
C:\asgluns\sg34	0.806	0.000	20.936	0.000
C:\asgluns\sg35	0.805	0.000	20.970	0.000
C:\asgluns\sg36	0.805	0.000	20.986	0.000
C:\asgluns\sg37	0.786	0.000	21.589	0.000
C:\asgluns\sg38	0.786	0.000	21.621	0.000
C:\asgluns\sg39	0.786	0.001	21.628	0.000
C:\asgluns\sg40	0.786	0.000	21.632	0.000
C:\asgluns\sg41	0.802	0.000	20.925	0.000
C:\asgluns\sg42	0.804	0.001	20.933	0.000
C:\asgluns\sg43	0.804	0.000	20.936	0.000
C:\asgluns\sg44	0.803	0.000	20.934	0.000
C:\asgluns\sg45	0.793	0.001	21.386	0.000
C:\asgluns\sg46	0.794	0.002	21.357	0.000
C:\asgluns\sg47	0.793	0.000	21.433	0.000
C:\asgluns\sg48	0.792	0.000	21.453	0.000

Memory System Performance of Checksum

Counter	Average	Minimum	Maximum
% Processor Time	0.538	0.120	0.980
Available MBytes	30405.469	30269.000	30532.000
Free System Page Table Entries	33561266.474	33560889.000	33564521.000
Transition Pages RePurposed/sec	0.000	0.000	0.000

Pool Nonpaged Bytes	140130778.096	140124160.000	140173312.000
Pool Paged Bytes	235810233.608	197996544.000	276963328.000

Test Log

```

11/10/2009 9:24:42 AM -- Jetstress testing begins ...
11/10/2009 9:24:42 AM -- Prepare testing begins ...
11/10/2009 9:25:31 AM -- Attaching databases ...
11/10/2009 9:25:31 AM -- Prepare testing ends.
11/10/2009 9:25:31 AM -- Dispatching transactions begins ...
11/10/2009 9:25:31 AM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0 GB)
11/10/2009 9:25:31 AM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8 MB)
11/10/2009 9:26:23 AM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.1 seconds/read).
11/10/2009 9:26:23 AM -- Log write latency thresholds: (average: 0.01 seconds/write,
maximum: 0.1 seconds/write).
11/10/2009 9:26:28 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
11/10/2009 9:26:28 AM -- Performance logging begins (interval: 15000 ms).
11/10/2009 9:26:28 AM -- Attaining prerequisites:
11/10/2009 10:52:17 AM -- \MSEExchange Database(Jetstresswin)\Database Cache Size,
Last: 11596590000.0 (lower bound: 11596410000.0, upper bound: none)
11/11/2009 10:52:17 AM -- Performance logging ends.
11/11/2009 12:04:47 PM -- JetInterop batch transaction stats: 39001, 38800, 39003,
39173, 39076, 39468, 38942, 38957, 39238, 39057, 38980, 39178, 38877, 39364, 38829,
39194, 39123, 39351, 38906, 38996, 39413, 38923, 38955, 38749, 38782, 39379, 38990,
39255, 39002, 39537, 39356, 38998, 39067, 39219, 38722, 39069, 38908, 39313, 39257,
39174, 38985, 39174, 38935, 39354, 39526, 39160, 38879, and 38879.
11/11/2009 12:04:48 PM -- Dispatching transactions ends.
11/11/2009 12:04:48 PM -- Shutting down databases ...
11/11/2009 12:05:11 PM -- Instance6496.1 (complete), Instance6496.2 (complete),
Instance6496.3 (complete), Instance6496.4 (complete), Instance6496.5 (complete),
Instance6496.6 (complete), Instance6496.7 (complete), Instance6496.8 (complete),
Instance6496.9 (complete), Instance6496.10 (complete), Instance6496.11 (complete),
Instance6496.12 (complete), Instance6496.13 (complete), Instance6496.14 (complete),
Instance6496.15 (complete), Instance6496.16 (complete), Instance6496.17 (complete),
Instance6496.18 (complete), Instance6496.19 (complete), Instance6496.20 (complete),
Instance6496.21 (complete), Instance6496.22 (complete), Instance6496.23 (complete),
Instance6496.24 (complete), Instance6496.25 (complete), Instance6496.26 (complete),
Instance6496.27 (complete), Instance6496.28 (complete), Instance6496.29 (complete),
Instance6496.30 (complete), Instance6496.31 (complete), Instance6496.32 (complete),
Instance6496.33 (complete), Instance6496.34 (complete), Instance6496.35 (complete),
Instance6496.36 (complete), Instance6496.37 (complete), Instance6496.38 (complete),
Instance6496.39 (complete), Instance6496.40 (complete), Instance6496.41 (complete),
Instance6496.42 (complete), Instance6496.43 (complete), Instance6496.44 (complete),
Instance6496.45 (complete), Instance6496.46 (complete), Instance6496.47 (complete),
and Instance6496.48 (complete)
11/11/2009 12:05:12 PM -- Performance logging begins (interval: 30000 ms).
11/11/2009 12:05:12 PM -- Verifying database checksums ...
11/12/2009 2:17:57 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),

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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), and C:\asgluns\sg48 (100% processed)
 11/12/2009 2:17:57 AM -- Performance logging ends.
 11/12/2009 2:17:57 AM -- C:\ESRP HDP_1GB\Stress
 Test\DBChecksum_2009_11_11_12_5_11.b1g has 1702 samples.

Streaming Backup Test Result: SUN141

Streaming Backup Statistics - All

<i>Database Instance</i>	<i>Database Size (MBytes)</i>	<i>Elapsed Backup Time</i>	<i>MBytes Transferred/sec</i>
Instance5152.1	66246.52	14:53:13	1.24
Instance5152.2	66222.52	14:35:27	1.26
Instance5152.3	66266.52	14:30:59	1.27
Instance5152.4	66240.52	14:51:37	1.24
Instance5152.5	66254.52	14:36:39	1.26
Instance5152.6	66248.52	14:19:48	1.28
Instance5152.7	66258.52	14:34:33	1.26
Instance5152.8	66248.52	13:15:57	1.39
Instance5152.9	66238.52	14:18:32	1.29
Instance5152.10	66250.52	14:24:34	1.28
Instance5152.11	66234.52	14:22:47	1.28
Instance5152.12	66238.52	14:23:51	1.28
Instance5152.13	66236.52	13:32:33	1.36
Instance5152.14	66252.52	13:45:15	1.34
Instance5152.15	66230.52	13:38:01	1.35
Instance5152.16	66260.52	13:28:43	1.37
Instance5152.17	66216.52	14:41:56	1.25
Instance5152.18	66246.52	14:36:30	1.26
Instance5152.19	66232.52	14:39:08	1.26
Instance5152.20	66244.52	14:35:35	1.26
Instance5152.21	66230.52	13:23:24	1.37
Instance5152.22	66224.52	14:26:09	1.27
Instance5152.23	66244.52	13:48:12	1.33
Instance5152.24	66242.52	14:24:20	1.28
Instance5152.25	66222.52	14:28:53	1.27
Instance5152.26	66254.52	14:28:57	1.27
Instance5152.27	66240.52	13:40:36	1.35

Instance5152.28	66242.52	14:07:24	1.30
Instance5152.29	66250.52	13:23:24	1.37
Instance5152.30	66236.52	14:04:58	1.31
Instance5152.31	66226.52	13:56:32	1.32
Instance5152.32	66258.52	13:30:45	1.36
Instance5152.33	66224.52	14:50:04	1.24
Instance5152.34	66234.52	14:24:04	1.28
Instance5152.35	66256.52	14:47:32	1.24
Instance5152.36	66242.52	14:50:43	1.24
Instance5152.37	66234.52	13:25:34	1.37
Instance5152.38	66250.52	14:25:29	1.28
Instance5152.39	66232.52	14:09:34	1.30
Instance5152.40	66246.52	14:05:13	1.31
Instance5152.41	66256.52	14:27:38	1.27
Instance5152.42	66248.52	12:14:49	1.50
Instance5152.43	66230.52	14:22:50	1.28
Instance5152.44	66236.52	14:27:52	1.27
Instance5152.45	66262.52	13:33:06	1.36
Instance5152.46	66236.52	14:07:52	1.30
Instance5152.47	66212.52	12:53:20	1.43
Instance5152.48	66252.52	13:58:52	1.32

Jetstress System Parameters

Thread count	2 (per storage group)
Log buffers	9000
Minimum database cache	1536.0 MB
Maximum database cache	12288.0 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	0.315	0.000	9.470	0.000	(n/a)

(C:\asgluns\sg1)					
Database (C:\asgluns\sg2)	0.289	0.000	9.891	0.001	(n/a)
Database (C:\asgluns\sg3)	0.293	0.000	9.898	0.001	(n/a)
Database (C:\asgluns\sg4)	0.304	0.000	9.894	0.001	(n/a)
Database (C:\asgluns\sg5)	0.276	0.000	9.896	0.001	(n/a)
Database (C:\asgluns\sg6)	0.264	0.000	9.895	0.001	(n/a)
Database (C:\asgluns\sg7)	0.276	0.000	9.896	0.001	(n/a)
Database (C:\asgluns\sg8)	0.242	0.000	9.895	0.001	(n/a)
Database (C:\asgluns\sg9)	0.317	0.000	9.893	0.001	(n/a)
Database (C:\asgluns\sg10)	0.328	0.000	9.895	0.001	(n/a)
Database (C:\asgluns\sg11)	0.333	0.000	9.893	0.001	(n/a)
Database (C:\asgluns\sg12)	0.322	0.000	9.893	0.001	(n/a)
Database (C:\asgluns\sg13)	0.287	0.000	9.893	0.001	(n/a)
Database (C:\asgluns\sg14)	0.299	0.000	9.895	0.001	(n/a)
Database (C:\asgluns\sg15)	0.287	0.000	9.892	0.001	(n/a)
Database (C:\asgluns\sg16)	0.286	0.000	9.897	0.001	(n/a)
Database (C:\asgluns\sg17)	0.297	0.000	9.891	0.001	(n/a)
Database (C:\asgluns\sg18)	0.287	0.000	9.895	0.001	(n/a)
Database (C:\asgluns\sg19)	0.288	0.000	9.893	0.001	(n/a)
Database (C:\asgluns\sg20)	0.283	0.000	9.894	0.001	(n/a)
Database (C:\asgluns\sg21)	0.245	0.000	9.888	0.001	(n/a)
Database (C:\asgluns\sg22)	0.268	0.000	9.887	0.001	(n/a)
Database (C:\asgluns\sg23)	0.257	0.000	9.890	0.001	(n/a)

Database (C:\asgluns\sg24)	0.268	0.000	9.889	0.001	(n/a)
Database (C:\asgluns\sg25)	0.330	0.000	9.891	0.001	(n/a)
Database (C:\asgluns\sg26)	0.338	0.000	9.896	0.001	(n/a)
Database (C:\asgluns\sg27)	0.301	0.000	9.893	0.001	(n/a)
Database (C:\asgluns\sg28)	0.311	0.000	9.894	0.001	(n/a)
Database (C:\asgluns\sg29)	0.294	0.000	9.893	0.001	(n/a)
Database (C:\asgluns\sg30)	0.314	0.000	9.891	0.001	(n/a)
Database (C:\asgluns\sg31)	0.303	0.000	9.890	0.001	(n/a)
Database (C:\asgluns\sg32)	0.287	0.000	9.894	0.001	(n/a)
Database (C:\asgluns\sg33)	0.295	0.000	9.892	0.001	(n/a)
Database (C:\asgluns\sg34)	0.276	0.000	9.894	0.001	(n/a)
Database (C:\asgluns\sg35)	0.290	0.000	9.897	0.001	(n/a)
Database (C:\asgluns\sg36)	0.292	0.000	9.895	0.001	(n/a)
Database (C:\asgluns\sg37)	0.242	0.000	9.892	0.001	(n/a)
Database (C:\asgluns\sg38)	0.274	0.000	9.894	0.001	(n/a)
Database (C:\asgluns\sg39)	0.262	0.000	9.891	0.001	(n/a)
Database (C:\asgluns\sg40)	0.258	0.000	9.893	0.001	(n/a)
Database (C:\asgluns\sg41)	0.328	0.000	9.896	0.001	(n/a)
Database (C:\asgluns\sg42)	0.265	0.000	9.881	0.001	(n/a)
Database (C:\asgluns\sg43)	0.327	0.000	9.892	0.001	(n/a)
Database (C:\asgluns\sg44)	0.331	0.000	9.893	0.001	(n/a)
Database (C:\asgluns\sg45)	0.287	0.000	9.897	0.001	(n/a)
Database	0.310	0.000	9.893	0.001	(n/a)

(C:\asgluns\sg46)						
Database (C:\asgluns\sg47)	0.269	0.000	9.889	0.001	(n/a)	
Database (C:\asgluns\sg48)	0.297	0.000	9.895	0.001	(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	0.001	6.232	
Log (C:\alogluns\log3)	0.000	0.000	0.000	0.001	3.962	
Log (C:\alogluns\log4)	0.000	0.000	0.000	0.000	3.819	
Log (C:\alogluns\log5)	0.000	0.000	0.000	0.001	3.721	
Log (C:\alogluns\log6)	0.000	0.000	0.000	0.001	4.015	
Log (C:\alogluns\log7)	0.000	0.000	0.000	0.001	6.314	
Log (C:\alogluns\log8)	0.000	0.000	0.000	0.001	6.251	
Log (C:\alogluns\log9)	0.000	0.000	0.000	0.001	6.314	
Log (C:\alogluns\log10)	0.000	0.000	0.000	0.001	6.120	
Log (C:\alogluns\log11)	0.000	0.000	0.000	0.001	3.989	
Log (C:\alogluns\log12)	0.000	0.000	0.000	0.001	4.015	
Log (C:\alogluns\log13)	0.000	0.000	0.000	0.001	6.049	
Log (C:\alogluns\log14)	0.000	0.000	0.000	0.001	4.089	
Log (C:\alogluns\log15)	0.000	0.000	0.000	0.001	6.251	
Log (C:\alogluns\log16)	0.000	0.000	0.000	0.001	4.015	
Log (C:\alogluns\log17)	0.000	0.000	0.000	0.001	4.015	
Log (C:\alogluns\log18)	0.000	0.000	0.000	0.001	3.962	
Log (C:\alogluns\log19)	0.000	0.000	0.000	0.001	6.351	
Log (C:\alogluns\log20)	0.000	0.000	0.000	0.001	6.120	
Log (C:\alogluns\log21)	0.000	0.000	0.000	0.001	6.314	
Log (C:\alogluns\log22)	0.000	0.000	0.000	0.001	5.964	
Log (C:\alogluns\log23)	0.000	0.000	0.000	0.001	4.015	
Log (C:\alogluns\log24)	0.000	0.000	0.000	0.001	4.015	
Log (C:\alogluns\log25)	0.000	0.000	0.000	0.001	4.015	
Log (C:\alogluns\log26)	0.000	0.000	0.000	0.001	6.263	
Log (C:\alogluns\log27)	0.000	0.000	0.000	0.001	6.049	
Log (C:\alogluns\log28)	0.000	0.000	0.000	0.001	6.263	
Log (C:\alogluns\log29)	0.000	0.000	0.000	0.001	6.314	
Log (C:\alogluns\log30)	0.000	0.000	0.000	0.001	6.283	
Log (C:\alogluns\log31)	0.000	0.000	0.000	0.001	6.074	
Log (C:\alogluns\log32)	0.000	0.000	0.000	0.001	4.089	
Log (C:\alogluns\log33)	0.000	0.000	0.000	0.001	6.120	

Log (C:\alogluns\log34)	0.000	0.000	0.000	0.001	6.248
Log (C:\alogluns\log35)	0.000	0.000	0.000	0.001	3.931
Log (C:\alogluns\log36)	0.000	0.000	0.000	0.001	6.022
Log (C:\alogluns\log37)	0.000	0.000	0.000	0.001	5.938
Log (C:\alogluns\log38)	0.000	0.000	0.000	0.001	3.931
Log (C:\alogluns\log39)	0.000	0.000	0.000	0.001	6.251
Log (C:\alogluns\log40)	0.000	0.000	0.000	0.001	4.015
Log (C:\alogluns\log41)	0.000	0.000	0.000	0.001	6.251
Log (C:\alogluns\log42)	0.000	0.000	0.000	0.001	6.049
Log (C:\alogluns\log43)	0.000	0.000	0.000	0.001	4.015
Log (C:\alogluns\log44)	0.000	0.000	0.000	0.001	4.015
Log (C:\alogluns\log45)	0.000	0.000	0.000	0.001	4.089
Log (C:\alogluns\log46)	0.000	0.000	0.000	0.001	6.263
Log (C:\alogluns\log47)	0.000	0.000	0.000	0.001	6.210
Log (C:\alogluns\log48)	0.000	0.000	0.000	0.001	6.263

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	0.421	0.117	1.018
Available MBytes	30522.450	30406.000	30620.000
Free System Page Table Entries	33564158.488	33563791.000	33564487.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	140121319.708	140120064.000	140136448.000
Pool Paged Bytes	208834249.523	208048128.000	210329600.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

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11/12/2009 3:17:17 AM -- Jetstress testing begins ...
11/12/2009 3:17:17 AM -- Prepare testing begins ...
11/12/2009 3:18:06 AM -- Attaching databases ...
11/12/2009 3:18:06 AM -- Prepare testing ends.
11/12/2009 3:19:00 AM -- Performance logging begins (interval: 30000 ms).
11/12/2009 3:19:00 AM -- Streaming backup databases ...
11/12/2009 6:12:13 PM -- Performance logging ends.
11/12/2009 6:12:13 PM -- Instance5152.1 (100% processed), Instance5152.2 (100%
processed), Instance5152.3 (100% processed), Instance5152.4 (100% processed),
Instance5152.5 (100% processed), Instance5152.6 (100% processed), Instance5152.7
(100% processed), Instance5152.8 (100% processed), Instance5152.9 (100% processed),
Instance5152.10 (100% processed), Instance5152.11 (100% processed), Instance5152.12
(100% processed), Instance5152.13 (100% processed), Instance5152.14 (100% processed),
Instance5152.15 (100% processed), Instance5152.16 (100% processed), Instance5152.17
(100% processed), Instance5152.18 (100% processed), Instance5152.19 (100% processed),
Instance5152.20 (100% processed), Instance5152.21 (100% processed), Instance5152.22
(100% processed), Instance5152.23 (100% processed), Instance5152.24 (100% processed),

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Instance5152.25 (100% processed), Instance5152.26 (100% processed), Instance5152.27 (100% processed), Instance5152.28 (100% processed), Instance5152.29 (100% processed), Instance5152.30 (100% processed), Instance5152.31 (100% processed), Instance5152.32 (100% processed), Instance5152.33 (100% processed), Instance5152.34 (100% processed), Instance5152.35 (100% processed), Instance5152.36 (100% processed), Instance5152.37 (100% processed), Instance5152.38 (100% processed), Instance5152.39 (100% processed), Instance5152.40 (100% processed), Instance5152.41 (100% processed), Instance5152.42 (100% processed), Instance5152.43 (100% processed), Instance5152.44 (100% processed), Instance5152.45 (100% processed), Instance5152.46 (100% processed), Instance5152.47 (100% processed), and Instance5152.48 (100% processed)
 11/12/2009 6:12:13 PM -- C:\ESRP_HDP_1GB\Streaming Backup
 Test\StreamingBackup_2009_11_12_3_18_6.b1g has 1781 samples.
 11/12/2009 6:12:13 PM -- Creating test report ...

Soft Recovery Test Result: SUN141

Soft Recovery Statistics - All

<i>Database Instance</i>	<i>Log files replayed</i>	<i>Elapsed seconds</i>
Instance1232.1	509	5045.9927459
Instance1232.2	508	5052.6227884
Instance1232.3	500	5014.4337436
Instance1232.4	511	5046.2579476
Instance1232.5	516	4985.2615566
Instance1232.6	511	4970.9406648
Instance1232.7	509	4952.1113441
Instance1232.8	510	4970.1450597
Instance1232.9	500	4931.1604098
Instance1232.10	510	5003.8256756
Instance1232.11	502	4941.7684778
Instance1232.12	508	5013.3729368
Instance1232.13	514	4966.4322359
Instance1232.14	509	4965.6366308
Instance1232.15	502	4900.6622143
Instance1232.16	512	4966.4322359
Instance1232.17	507	5029.0198371
Instance1232.18	503	5021.0637861
Instance1232.19	508	5035.9150813
Instance1232.20	515	5049.9707714
Instance1232.21	501	4904.6402398
Instance1232.22	506	4955.5589662
Instance1232.23	512	4983.4051447
Instance1232.24	514	4977.835909
Instance1232.25	510	5020.7985844
Instance1232.26	501	5005.9472892

Instance1232.27	522	5020.7985844
Instance1232.28	506	4996.9304314
Instance1232.29	500	4895.0929786
Instance1232.30	510	4977.835909
Instance1232.31	502	4928.2431911
Instance1232.32	520	4989.2395821
Instance1232.33	508	5038.3018966
Instance1232.34	520	5055.0096037
Instance1232.35	507	5023.4506014
Instance1232.36	512	5056.6008139
Instance1232.37	507	4954.7633611
Instance1232.38	509	4933.0168217
Instance1232.39	511	4978.6315141
Instance1232.40	506	4901.9882228
Instance1232.41	506	4994.2784144
Instance1232.42	509	4984.4659515
Instance1232.43	514	5013.6381385
Instance1232.44	510	4987.9135736
Instance1232.45	505	4959.27179
Instance1232.46	513	4986.3223634
Instance1232.47	511	4954.2329577
Instance1232.48	507	4961.923807

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)	0.178	0.048	50.763	1.355	(n/a)
Database (C:\asgluns\sg2)	0.176	0.041	51.422	1.353	(n/a)
Database (C:\asgluns\sg3)	0.177	0.039	50.491	1.336	(n/a)
Database (C:\asgluns\sg4)	0.167	0.037	51.134	1.358	(n/a)
Database (C:\asgluns\sg5)	0.158	0.040	50.863	1.367	(n/a)
Database (C:\asgluns\sg6)	0.147	0.031	51.908	1.360	(n/a)
Database (C:\asgluns\sg7)	0.169	0.028	51.056	1.352	(n/a)

Database (C:\asgluns\sg8)	0.137	0.028	51.488	1.353	(n/a)
Database (C:\asgluns\sg9)	0.144	0.038	50.558	1.334	(n/a)
Database (C:\asgluns\sg10)	0.156	0.034	49.991	1.353	(n/a)
Database (C:\asgluns\sg11)	0.151	0.031	50.269	1.336	(n/a)
Database (C:\asgluns\sg12)	0.164	0.031	51.032	1.355	(n/a)
Database (C:\asgluns\sg13)	0.133	0.032	51.090	1.356	(n/a)
Database (C:\asgluns\sg14)	0.139	0.029	52.003	1.354	(n/a)
Database (C:\asgluns\sg15)	0.146	0.028	50.635	1.337	(n/a)
Database (C:\asgluns\sg16)	0.132	0.027	51.184	1.360	(n/a)
Database (C:\asgluns\sg17)	0.156	0.044	50.567	1.350	(n/a)
Database (C:\asgluns\sg18)	0.165	0.035	50.797	1.338	(n/a)
Database (C:\asgluns\sg19)	0.163	0.035	50.935	1.355	(n/a)
Database (C:\asgluns\sg20)	0.168	0.035	51.593	1.368	(n/a)
Database (C:\asgluns\sg21)	0.136	0.032	50.191	1.326	(n/a)
Database (C:\asgluns\sg22)	0.138	0.028	51.156	1.343	(n/a)
Database (C:\asgluns\sg23)	0.136	0.027	51.043	1.354	(n/a)
Database (C:\asgluns\sg24)	0.130	0.028	51.333	1.361	(n/a)
Database (C:\asgluns\sg25)	0.167	0.038	50.560	1.356	(n/a)
Database (C:\asgluns\sg26)	0.160	0.032	50.843	1.344	(n/a)
Database (C:\asgluns\sg27)	0.162	0.033	51.858	1.376	(n/a)
Database (C:\asgluns\sg28)	0.169	0.030	50.736	1.347	(n/a)
Database (C:\asgluns\sg29)	0.144	0.034	50.442	1.327	(n/a)
Database	0.145	0.029	51.805	1.353	(n/a)

(C:\asgluns\sg30)					
Database (C:\asgluns\sg31)	0.146	0.027	50.311	1.338	(n/a)
Database (C:\asgluns\sg32)	0.146	0.027	51.836	1.370	(n/a)
Database (C:\asgluns\sg33)	0.178	0.042	50.568	1.354	(n/a)
Database (C:\asgluns\sg34)	0.158	0.037	51.550	1.377	(n/a)
Database (C:\asgluns\sg35)	0.172	0.035	50.822	1.349	(n/a)
Database (C:\asgluns\sg36)	0.173	0.033	50.405	1.352	(n/a)
Database (C:\asgluns\sg37)	0.141	0.034	50.350	1.346	(n/a)
Database (C:\asgluns\sg38)	0.132	0.030	50.656	1.346	(n/a)
Database (C:\asgluns\sg39)	0.129	0.028	51.193	1.356	(n/a)
Database (C:\asgluns\sg40)	0.145	0.028	50.478	1.340	(n/a)
Database (C:\asgluns\sg41)	0.160	0.034	50.479	1.343	(n/a)
Database (C:\asgluns\sg42)	0.156	0.031	51.297	1.352	(n/a)
Database (C:\asgluns\sg43)	0.143	0.031	50.803	1.364	(n/a)
Database (C:\asgluns\sg44)	0.155	0.030	50.771	1.345	(n/a)
Database (C:\asgluns\sg45)	0.145	0.032	51.331	1.342	(n/a)
Database (C:\asgluns\sg46)	0.139	0.029	51.835	1.356	(n/a)
Database (C:\asgluns\sg47)	0.134	0.027	50.981	1.356	(n/a)
Database (C:\asgluns\sg48)	0.134	0.029	50.879	1.344	(n/a)
Log (C:\alogluns\log1)	0.040	0.000	3.326	0.007	19.043
Log (C:\alogluns\log2)	0.041	0.000	3.320	0.006	12.871
Log (C:\alogluns\log3)	0.040	0.000	3.267	0.009	33.476
Log (C:\alogluns\log4)	0.038	0.000	3.339	0.007	15.786
Log (C:\alogluns\log5)	0.031	0.000	3.371	0.008	24.329
Log (C:\alogluns\log6)	0.033	0.000	3.339	0.008	23.389
Log (C:\alogluns\log7)	0.032	0.000	3.326	0.008	23.451

Log (C:\alogluns\log8)	0.033	0.000	3.332	0.008	22.682
Log (C:\alogluns\log9)	0.034	0.000	3.267	0.009	32.018
Log (C:\alogluns\log10)	0.037	0.000	3.332	0.008	24.433
Log (C:\alogluns\log11)	0.035	0.000	3.280	0.009	35.614
Log (C:\alogluns\log12)	0.035	0.000	3.319	0.007	25.604
Log (C:\alogluns\log13)	0.034	0.000	3.358	0.008	30.745
Log (C:\alogluns\log14)	0.032	0.000	3.326	0.009	31.613
Log (C:\alogluns\log15)	0.033	0.000	3.280	0.009	41.227
Log (C:\alogluns\log16)	0.032	0.000	3.345	0.008	26.181
Log (C:\alogluns\log17)	0.038	0.000	3.313	0.008	31.613
Log (C:\alogluns\log18)	0.039	0.001	3.287	0.009	36.521
Log (C:\alogluns\log19)	0.039	0.000	3.320	0.008	27.501
Log (C:\alogluns\log20)	0.039	0.000	3.366	0.006	18.993
Log (C:\alogluns\log21)	0.032	0.000	3.273	0.010	47.281
Log (C:\alogluns\log22)	0.033	0.000	3.306	0.009	32.646
Log (C:\alogluns\log23)	0.033	0.000	3.345	0.008	29.157
Log (C:\alogluns\log24)	0.033	0.000	3.358	0.008	29.736
Log (C:\alogluns\log25)	0.036	0.000	3.334	0.007	26.424
Log (C:\alogluns\log26)	0.036	0.000	3.273	0.008	28.031
Log (C:\alogluns\log27)	0.036	0.000	3.411	0.008	29.939
Log (C:\alogluns\log28)	0.036	0.000	3.306	0.008	28.482
Log (C:\alogluns\log29)	0.032	0.000	3.266	0.010	45.991
Log (C:\alogluns\log30)	0.033	0.000	3.332	0.007	17.300
Log (C:\alogluns\log31)	0.035	0.000	3.280	0.010	42.644
Log (C:\alogluns\log32)	0.034	0.000	3.397	0.008	30.097
Log (C:\alogluns\log33)	0.037	0.000	3.319	0.008	26.420
Log (C:\alogluns\log34)	0.040	0.000	3.398	0.005	14.147
Log (C:\alogluns\log35)	0.036	0.000	3.313	0.008	32.367
Log (C:\alogluns\log36)	0.040	0.000	3.339	0.002	14.360
Log (C:\alogluns\log37)	0.033	0.000	3.312	0.008	29.133
Log (C:\alogluns\log38)	0.033	0.000	3.325	0.009	36.830
Log (C:\alogluns\log39)	0.034	0.000	3.339	0.008	34.052
Log (C:\alogluns\log40)	0.031	0.000	3.306	0.009	35.903
Log (C:\alogluns\log41)	0.037	0.000	3.306	0.008	33.805
Log (C:\alogluns\log42)	0.034	0.000	3.326	0.009	38.871
Log (C:\alogluns\log43)	0.035	0.000	3.359	0.008	27.937
Log (C:\alogluns\log44)	0.037	0.000	3.332	0.008	30.993

Log (C:\alogluns\log45)	0.033	0.000	3.299	0.008	32.925
Log (C:\alogluns\log46)	0.033	0.000	3.352	0.008	30.338
Log (C:\alogluns\log47)	0.032	0.000	3.339	0.008	25.873
Log (C:\alogluns\log48)	0.033	0.000	3.312	0.009	38.183

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	1.307	0.000	9.591
Available MBytes	19383.655	17630.000	30334.000
Free System Page Table Entries	33564091.554	33563645.000	33564621.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	135537307.252	133918720.000	140894208.000
Pool Paged Bytes	215658938.632	214798336.000	215715840.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

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11/12/2009 8:50:31 PM -- Jetstress testing begins ...
11/12/2009 8:50:31 PM -- Prepare testing begins ...
11/12/2009 8:51:20 PM -- Attaching databases ...
11/12/2009 8:51:20 PM -- Prepare testing ends.
11/12/2009 8:51:20 PM -- Dispatching transactions begins ...
11/12/2009 8:51:20 PM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0 GB)
11/12/2009 8:51:20 PM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8 MB)
11/12/2009 8:52:12 PM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.05 seconds/read).
11/12/2009 8:52:12 PM -- Log write latency thresholds: (average: 0.01 seconds/write,
maximum: 0.05 seconds/write).
11/12/2009 8:52:17 PM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
11/12/2009 8:52:17 PM -- Performance logging begins (interval: 15000 ms).
11/12/2009 8:52:17 PM -- Generating log files ...
11/13/2009 6:17:51 AM -- C:\alogluns\log1 (102.0% generated), C:\alogluns\log2
(101.8% generated), C:\alogluns\log3 (100.2% generated), C:\alogluns\log4 (102.4%
generated), C:\alogluns\log5 (103.2% generated), C:\alogluns\log6 (102.4% generated),
C:\alogluns\log7 (102.0% generated), C:\alogluns\log8 (102.2% generated),
C:\alogluns\log9 (100.2% generated), C:\alogluns\log10 (102.2% generated),
C:\alogluns\log11 (100.6% generated), C:\alogluns\log12 (101.8% generated),
C:\alogluns\log13 (103.0% generated), C:\alogluns\log14 (102.0% generated),
C:\alogluns\log15 (100.6% generated), C:\alogluns\log16 (102.6% generated),
C:\alogluns\log17 (101.6% generated), C:\alogluns\log18 (100.8% generated),
C:\alogluns\log19 (101.8% generated), C:\alogluns\log20 (103.2% generated),
C:\alogluns\log21 (100.4% generated), C:\alogluns\log22 (101.4% generated),
C:\alogluns\log23 (102.6% generated), C:\alogluns\log24 (103.0% generated),
C:\alogluns\log25 (102.2% generated), C:\alogluns\log26 (100.4% generated),
C:\alogluns\log27 (104.6% generated), C:\alogluns\log28 (101.4% generated),
C:\alogluns\log29 (100.2% generated), C:\alogluns\log30 (102.2% generated),
C:\alogluns\log31 (100.6% generated), C:\alogluns\log32 (104.2% generated),
C:\alogluns\log33 (101.8% generated), C:\alogluns\log34 (104.2% generated),
C:\alogluns\log35 (101.6% generated), C:\alogluns\log36 (102.6% generated),
C:\alogluns\log37 (101.6% generated), C:\alogluns\log38 (102.0% generated),
C:\alogluns\log39 (102.4% generated), C:\alogluns\log40 (101.4% generated),
C:\alogluns\log41 (101.4% generated), C:\alogluns\log42 (102.0% generated),

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C:\alogluns\log43 (103.0% generated), C:\alogluns\log44 (102.2% generated),
 C:\alogluns\log45 (101.2% generated), C:\alogluns\log46 (102.8% generated),
 C:\alogluns\log47 (102.4% generated), and C:\alogluns\log48 (101.6% generated)
 11/13/2009 6:17:51 AM -- Performance logging ends.
 11/13/2009 6:17:51 AM -- JetInterop batch transaction stats: 13379, 13336, 13223,
 13308, 13362, 13463, 13379, 13442, 13298, 13190, 13324, 13281, 13302, 13534, 13274,
 13464, 13244, 13233, 13314, 13458, 13191, 13368, 13437, 13450, 13250, 13163, 13582,
 13255, 13118, 13490, 13230, 13463, 13212, 13448, 13227, 13292, 13318, 13208, 13365,
 13275, 13166, 13353, 13300, 13257, 13230, 13458, 13293, and 13251.
 11/13/2009 6:17:52 AM -- Dispatching transactions ends.
 11/13/2009 6:17:52 AM -- Shutting down databases ...
 11/13/2009 6:17:59 AM -- Instance1232.1 (complete), Instance1232.2 (complete),
 Instance1232.3 (complete), Instance1232.4 (complete), Instance1232.5 (complete),
 Instance1232.6 (complete), Instance1232.7 (complete), Instance1232.8 (complete),
 Instance1232.9 (complete), Instance1232.10 (complete), Instance1232.11 (complete),
 Instance1232.12 (complete), Instance1232.13 (complete), Instance1232.14 (complete),
 Instance1232.15 (complete), Instance1232.16 (complete), Instance1232.17 (complete),
 Instance1232.18 (complete), Instance1232.19 (complete), Instance1232.20 (complete),
 Instance1232.21 (complete), Instance1232.22 (complete), Instance1232.23 (complete),
 Instance1232.24 (complete), Instance1232.25 (complete), Instance1232.26 (complete),
 Instance1232.27 (complete), Instance1232.28 (complete), Instance1232.29 (complete),
 Instance1232.30 (complete), Instance1232.31 (complete), Instance1232.32 (complete),
 Instance1232.33 (complete), Instance1232.34 (complete), Instance1232.35 (complete),
 Instance1232.36 (complete), Instance1232.37 (complete), Instance1232.38 (complete),
 Instance1232.39 (complete), Instance1232.40 (complete), Instance1232.41 (complete),
 Instance1232.42 (complete), Instance1232.43 (complete), Instance1232.44 (complete),
 Instance1232.45 (complete), Instance1232.46 (complete), Instance1232.47 (complete),
 and Instance1232.48 (complete)
 11/13/2009 6:17:59 AM -- C:\ESRP HDP_1GB\Soft Recovery
 Test\Performance_2009_11_12_20_52_12.blg has 2252 samples.
 11/13/2009 6:17:59 AM -- Creating test report ...
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg1 has 0.0090 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg2 has 0.0090 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg3 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg4 has 0.0090 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg5 has 0.0091 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg6 has 0.0091 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg7 has 0.0091 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg8 has 0.0090 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg9 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg10 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg11 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg12 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg13 has 0.0092 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg14 has 0.0092 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg15 has 0.0092 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg16 has 0.0092 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg17 has 0.0090 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg18 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg19 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg20 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg21 has 0.0091 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg22 has 0.0091 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg23 has 0.0090 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg24 has 0.0091 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg25 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg26 has 0.0090 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg27 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg28 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg29 has 0.0094 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg30 has 0.0092 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg31 has 0.0092 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg32 has 0.0092 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg33 has 0.0089 for Avg. Disk sec/Read.
 11/13/2009 6:19:46 AM -- Volume C:\asgluns\sg34 has 0.0090 for Avg. Disk sec/Read.

11/13/2009 6:19:48 AM -- Volume C:\alogluns\log26 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log27 has 0.0018 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log27 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log28 has 0.0018 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log28 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log29 has 0.0021 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log29 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log30 has 0.0021 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log30 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log31 has 0.0021 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log31 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log32 has 0.0021 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log32 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log33 has 0.0019 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log33 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log34 has 0.0019 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log34 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log35 has 0.0019 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log35 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log36 has 0.0019 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log36 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log37 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log37 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log38 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log38 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log39 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log39 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log40 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log40 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log41 has 0.0018 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log41 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log42 has 0.0018 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log42 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log43 has 0.0018 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log43 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log44 has 0.0018 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log44 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log45 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log45 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log46 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log46 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log47 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log47 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log48 has 0.0021 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log48 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
11/13/2009 6:19:48 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.
11/13/2009 6:19:48 AM -- C:\ESRP HDP_1GB\Soft Recovery Test\Performance_2009_11_12_20_52_12.xml has 2251 samples queried.
11/13/2009 6:19:48 AM -- C:\ESRP HDP_1GB\Soft Recovery Test\Performance_2009_11_12_20_52_12.html is saved.
11/13/2009 8:47:11 AM -- Performance logging begins (interval: 4000 ms).
11/13/2009 8:47:11 AM -- Recovering databases ...
11/13/2009 10:11:27 AM -- Performance logging ends.
11/13/2009 10:11:27 AM -- Instance1232.1 (5045.9927459), Instance1232.2 (5052.6227884), Instance1232.3 (5014.4337436), Instance1232.4 (5046.2579476), Instance1232.5 (4985.2615566), Instance1232.6 (4970.9406648), Instance1232.7 (4952.1113441), Instance1232.8 (4970.1450597), Instance1232.9 (4931.1604098), Instance1232.10 (5003.8256756), Instance1232.11 (4941.7684778), Instance1232.12 (5013.3729368), Instance1232.13 (4966.4322359), Instance1232.14 (4965.6366308), Instance1232.15 (4900.6622143), Instance1232.16 (4966.4322359), Instance1232.17 (5029.0198371), Instance1232.18 (5021.0637861), Instance1232.19 (5035.9150813), Instance1232.20 (5049.9707714), Instance1232.21 (4904.6402398), Instance1232.22 (4955.5589662), Instance1232.23 (4983.4051447), Instance1232.24 (4977.835909),

Instance1232.25 (5020.7985844), Instance1232.26 (5005.9472892), Instance1232.27 (5020.7985844), Instance1232.28 (4996.9304314), Instance1232.29 (4895.0929786), Instance1232.30 (4977.835909), Instance1232.31 (4928.2431911), Instance1232.32 (4989.2395821), Instance1232.33 (5038.3018966), Instance1232.34 (5055.0096037), Instance1232.35 (5023.4506014), Instance1232.36 (5056.6008139), Instance1232.37 (4954.7633611), Instance1232.38 (4933.0168217), Instance1232.39 (4978.6315141), Instance1232.40 (4901.9882228), Instance1232.41 (4994.2784144), Instance1232.42 (4984.4659515), Instance1232.43 (5013.6381385), Instance1232.44 (4987.9135736), Instance1232.45 (4959.27179), Instance1232.46 (4986.3223634), Instance1232.47 (4954.2329577), and Instance1232.48 (4961.923807)
 11/13/2009 10:11:29 AM -- C:\ESRP HDP_1GB\Soft Recovery Test\SoftRecovery_2009_11_13_8_46_49.blg has 1240 samples.
 11/13/2009 10:11:29 AM -- Creating test report ...

Soft Recovery Test Performance Result: SUN141

Test Summary

Overall Test Result	Pass
Machine Name	SUN141
Test Description	
Test Start Time	11/12/2009 8:50:31 PM
Test End Time	11/13/2009 6:17:59 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\Soft Recovery Test\Performance_2009_11_12_20_52_12.blg

Database Sizing and Throughput

Achieved I/O per Second	1090.482
Capacity Percentage	100%
Throughput Percentage	100%
Initial database size	3334153699328
Final database size	3351235002368
Database files (count)	48

Jetstress System Parameters

Thread count	2 (per storage group)
Log buffers	9000
Minimum database cache	1536.0 MB
Maximum database cache	12288.0 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)	0.009	0.004	12.785	9.838	(n/a)
Database (C:\asgluns\sg2)	0.009	0.004	12.891	9.952	(n/a)
Database (C:\asgluns\sg3)	0.009	0.004	12.768	9.767	(n/a)
Database (C:\asgluns\sg4)	0.009	0.004	12.902	10.037	(n/a)
Database (C:\asgluns\sg5)	0.009	0.004	12.794	9.886	(n/a)
Database (C:\asgluns\sg6)	0.009	0.004	12.996	10.039	(n/a)
Database (C:\asgluns\sg7)	0.009	0.004	12.789	9.912	(n/a)
Database (C:\asgluns\sg8)	0.009	0.004	12.952	10.048	(n/a)
Database (C:\asgluns\sg9)	0.009	0.004	12.839	9.732	(n/a)
Database (C:\asgluns\sg10)	0.009	0.004	12.612	9.710	(n/a)
Database (C:\asgluns\sg11)	0.009	0.003	12.742	9.750	(n/a)
Database (C:\asgluns\sg12)	0.009	0.003	12.868	9.973	(n/a)
Database (C:\asgluns\sg13)	0.009	0.004	12.777	9.911	(n/a)
Database (C:\asgluns\sg14)	0.009	0.003	13.082	10.164	(n/a)
Database (C:\asgluns\sg15)	0.009	0.003	12.786	9.857	(n/a)
Database (C:\asgluns\sg16)	0.009	0.003	12.959	9.966	(n/a)
Database (C:\asgluns\sg17)	0.009	0.004	12.727	9.868	(n/a)
Database (C:\asgluns\sg18)	0.009	0.004	12.743	9.866	(n/a)
Database (C:\asgluns\sg19)	0.009	0.004	12.816	9.879	(n/a)

Database (C:\asgluns\sg20)	0.009	0.004	12.916	9.974	(n/a)
Database (C:\asgluns\sg21)	0.009	0.004	12.695	9.702	(n/a)
Database (C:\asgluns\sg22)	0.009	0.004	12.876	9.920	(n/a)
Database (C:\asgluns\sg23)	0.009	0.004	12.802	9.899	(n/a)
Database (C:\asgluns\sg24)	0.009	0.004	12.876	9.955	(n/a)
Database (C:\asgluns\sg25)	0.009	0.003	12.670	9.871	(n/a)
Database (C:\asgluns\sg26)	0.009	0.003	12.833	9.877	(n/a)
Database (C:\asgluns\sg27)	0.009	0.004	12.940	10.042	(n/a)
Database (C:\asgluns\sg28)	0.009	0.003	12.815	9.791	(n/a)
Database (C:\asgluns\sg29)	0.009	0.004	12.728	9.802	(n/a)
Database (C:\asgluns\sg30)	0.009	0.003	13.074	10.106	(n/a)
Database (C:\asgluns\sg31)	0.009	0.003	12.663	9.744	(n/a)
Database (C:\asgluns\sg32)	0.009	0.004	12.912	10.067	(n/a)
Database (C:\asgluns\sg33)	0.009	0.004	12.689	9.867	(n/a)
Database (C:\asgluns\sg34)	0.009	0.004	12.900	10.035	(n/a)
Database (C:\asgluns\sg35)	0.009	0.004	12.804	9.944	(n/a)
Database (C:\asgluns\sg36)	0.009	0.004	12.643	9.819	(n/a)
Database (C:\asgluns\sg37)	0.009	0.004	12.758	9.789	(n/a)
Database (C:\asgluns\sg38)	0.009	0.004	12.676	9.836	(n/a)
Database (C:\asgluns\sg39)	0.009	0.004	12.843	9.948	(n/a)
Database (C:\asgluns\sg40)	0.009	0.004	12.758	9.818	(n/a)
Database (C:\asgluns\sg41)	0.009	0.003	12.646	9.790	(n/a)
Database	0.009	0.004	12.862	9.978	(n/a)

(C:\asgluns\sg42)					
Database (C:\asgluns\sg43)	0.009	0.004	12.749	9.918	(n/a)
Database (C:\asgluns\sg44)	0.009	0.004	12.711	9.897	(n/a)
Database (C:\asgluns\sg45)	0.009	0.003	12.910	9.942	(n/a)
Database (C:\asgluns\sg46)	0.009	0.004	12.947	10.019	(n/a)
Database (C:\asgluns\sg47)	0.009	0.004	12.781	9.991	(n/a)
Database (C:\asgluns\sg48)	0.009	0.004	12.822	9.857	(n/a)
Log (C:\alogluns\log1)	0.000	0.002	0.000	8.138	3998.848
Log (C:\alogluns\log2)	0.000	0.002	0.000	8.186	4007.942
Log (C:\alogluns\log3)	0.000	0.002	0.000	7.993	4008.454
Log (C:\alogluns\log4)	0.000	0.002	0.000	8.170	4026.137
Log (C:\alogluns\log5)	0.000	0.002	0.000	8.171	3985.136
Log (C:\alogluns\log6)	0.000	0.002	0.000	8.199	3998.002
Log (C:\alogluns\log7)	0.000	0.002	0.000	8.138	4030.075
Log (C:\alogluns\log8)	0.000	0.002	0.000	8.184	3969.746
Log (C:\alogluns\log9)	0.000	0.002	0.000	8.039	3956.414
Log (C:\alogluns\log10)	0.000	0.002	0.000	8.047	4060.924
Log (C:\alogluns\log11)	0.000	0.002	0.000	8.034	3969.839
Log (C:\alogluns\log12)	0.000	0.002	0.000	8.151	4000.131
Log (C:\alogluns\log13)	0.000	0.002	0.000	8.144	4011.985
Log (C:\alogluns\log14)	0.000	0.002	0.000	8.191	3966.240
Log (C:\alogluns\log15)	0.000	0.002	0.000	8.034	4006.029
Log (C:\alogluns\log16)	0.000	0.002	0.000	8.150	4012.664
Log (C:\alogluns\log17)	0.000	0.002	0.000	8.123	3993.731
Log (C:\alogluns\log18)	0.000	0.002	0.000	8.086	3944.088
Log (C:\alogluns\log19)	0.000	0.002	0.000	8.092	4013.388
Log (C:\alogluns\log20)	0.000	0.002	0.000	8.192	4016.864
Log (C:\alogluns\log21)	0.000	0.002	0.000	8.032	4000.448
Log (C:\alogluns\log22)	0.000	0.002	0.000	8.100	4019.109
Log (C:\alogluns\log23)	0.000	0.002	0.000	8.130	4005.059
Log (C:\alogluns\log24)	0.000	0.002	0.000	8.178	4006.340
Log (C:\alogluns\log25)	0.000	0.002	0.000	8.133	4035.842
Log (C:\alogluns\log26)	0.000	0.002	0.000	8.064	3948.542

Log (C:\alogluns\log27)	0.000	0.002	0.000	8.307	4056.382
Log (C:\alogluns\log28)	0.000	0.002	0.000	8.075	3993.992
Log (C:\alogluns\log29)	0.000	0.002	0.000	7.991	4034.402
Log (C:\alogluns\log30)	0.000	0.002	0.000	8.182	3979.358
Log (C:\alogluns\log31)	0.000	0.002	0.000	8.014	3992.271
Log (C:\alogluns\log32)	0.000	0.002	0.000	8.300	4005.511
Log (C:\alogluns\log33)	0.000	0.002	0.000	8.102	3986.816
Log (C:\alogluns\log34)	0.000	0.002	0.000	8.244	3976.753
Log (C:\alogluns\log35)	0.000	0.002	0.000	8.129	3954.929
Log (C:\alogluns\log36)	0.000	0.002	0.000	8.078	4087.801
Log (C:\alogluns\log37)	0.000	0.002	0.000	8.058	3949.513
Log (C:\alogluns\log38)	0.000	0.002	0.000	8.094	3993.587
Log (C:\alogluns\log39)	0.000	0.002	0.000	8.130	4011.426
Log (C:\alogluns\log40)	0.000	0.002	0.000	8.103	4013.721
Log (C:\alogluns\log41)	0.000	0.002	0.000	8.048	4022.512
Log (C:\alogluns\log42)	0.000	0.002	0.000	8.150	3968.553
Log (C:\alogluns\log43)	0.000	0.002	0.000	8.170	4021.794
Log (C:\alogluns\log44)	0.000	0.002	0.000	8.134	4048.387
Log (C:\alogluns\log45)	0.000	0.002	0.000	8.094	3974.680
Log (C:\alogluns\log46)	0.000	0.002	0.000	8.224	3979.411
Log (C:\alogluns\log47)	0.000	0.002	0.000	8.144	4049.040
Log (C:\alogluns\log48)	0.000	0.002	0.000	8.050	4033.014

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	1.418	0.427	8.277
Available MBytes	18764.421	17591.000	30315.000
Free System Page Table Entries	33564524.462	33563183.000	33566181.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	140125687.815	140124160.000	140148736.000
Pool Paged Bytes	211674503.048	209928192.000	212639744.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

```

11/12/2009 8:50:31 PM -- Jetstress testing begins ...
11/12/2009 8:50:31 PM -- Prepare testing begins ...
11/12/2009 8:51:20 PM -- Attaching databases ...
11/12/2009 8:51:20 PM -- Prepare testing ends.
11/12/2009 8:51:20 PM -- Dispatching transactions begins ...

```

11/12/2009 8:51:20 PM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0 GB)
 11/12/2009 8:51:20 PM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8 MB)
 11/12/2009 8:52:12 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).
 11/12/2009 8:52:12 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).
 11/12/2009 8:52:17 PM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%, Replaces 5%, Reads 25%, Lazy Commits 55%.
 11/12/2009 8:52:17 PM -- Performance logging begins (interval: 15000 ms).
 11/12/2009 8:52:17 PM -- Generating log files ...
 11/13/2009 6:17:51 AM -- C:\alogluns\log1 (102.0% generated), C:\alogluns\log2 (101.8% generated), C:\alogluns\log3 (100.2% generated), C:\alogluns\log4 (102.4% generated), C:\alogluns\log5 (103.2% generated), C:\alogluns\log6 (102.4% generated), C:\alogluns\log7 (102.0% generated), C:\alogluns\log8 (102.2% generated), C:\alogluns\log9 (100.2% generated), C:\alogluns\log10 (102.2% generated), C:\alogluns\log11 (100.6% generated), C:\alogluns\log12 (101.8% generated), C:\alogluns\log13 (103.0% generated), C:\alogluns\log14 (102.0% generated), C:\alogluns\log15 (100.6% generated), C:\alogluns\log16 (102.6% generated), C:\alogluns\log17 (101.6% generated), C:\alogluns\log18 (100.8% generated), C:\alogluns\log19 (101.8% generated), C:\alogluns\log20 (103.2% generated), C:\alogluns\log21 (100.4% generated), C:\alogluns\log22 (101.4% generated), C:\alogluns\log23 (102.6% generated), C:\alogluns\log24 (103.0% generated), C:\alogluns\log25 (102.2% generated), C:\alogluns\log26 (100.4% generated), C:\alogluns\log27 (104.6% generated), C:\alogluns\log28 (101.4% generated), C:\alogluns\log29 (100.2% generated), C:\alogluns\log30 (102.2% generated), C:\alogluns\log31 (100.6% generated), C:\alogluns\log32 (104.2% generated), C:\alogluns\log33 (101.8% generated), C:\alogluns\log34 (104.2% generated), C:\alogluns\log35 (101.6% generated), C:\alogluns\log36 (102.6% generated), C:\alogluns\log37 (101.6% generated), C:\alogluns\log38 (102.0% generated), C:\alogluns\log39 (102.4% generated), C:\alogluns\log40 (101.4% generated), C:\alogluns\log41 (101.4% generated), C:\alogluns\log42 (102.0% generated), C:\alogluns\log43 (103.0% generated), C:\alogluns\log44 (102.2% generated), C:\alogluns\log45 (101.2% generated), C:\alogluns\log46 (102.8% generated), C:\alogluns\log47 (102.4% generated), and C:\alogluns\log48 (101.6% generated)
 11/13/2009 6:17:51 AM -- Performance logging ends.
 11/13/2009 6:17:51 AM -- JetInterop batch transaction stats: 13379, 13336, 13223, 13308, 13362, 13463, 13379, 13442, 13298, 13190, 13324, 13281, 13302, 13534, 13274, 13464, 13244, 13233, 13314, 13458, 13191, 13368, 13437, 13450, 13250, 13163, 13582, 13255, 13118, 13490, 13230, 13463, 13212, 13448, 13227, 13292, 13318, 13208, 13365, 13275, 13166, 13353, 13300, 13257, 13230, 13458, 13293, and 13251.
 11/13/2009 6:17:52 AM -- Dispatching transactions ends.
 11/13/2009 6:17:52 AM -- Shutting down databases ...
 11/13/2009 6:17:59 AM -- Instance1232.1 (complete), Instance1232.2 (complete), Instance1232.3 (complete), Instance1232.4 (complete), Instance1232.5 (complete), Instance1232.6 (complete), Instance1232.7 (complete), Instance1232.8 (complete), Instance1232.9 (complete), Instance1232.10 (complete), Instance1232.11 (complete), Instance1232.12 (complete), Instance1232.13 (complete), Instance1232.14 (complete), Instance1232.15 (complete), Instance1232.16 (complete), Instance1232.17 (complete), Instance1232.18 (complete), Instance1232.19 (complete), Instance1232.20 (complete), Instance1232.21 (complete), Instance1232.22 (complete), Instance1232.23 (complete), Instance1232.24 (complete), Instance1232.25 (complete), Instance1232.26 (complete), Instance1232.27 (complete), Instance1232.28 (complete), Instance1232.29 (complete), Instance1232.30 (complete), Instance1232.31 (complete), Instance1232.32 (complete), Instance1232.33 (complete), Instance1232.34 (complete), Instance1232.35 (complete), Instance1232.36 (complete), Instance1232.37 (complete), Instance1232.38 (complete), Instance1232.39 (complete), Instance1232.40 (complete), Instance1232.41 (complete), Instance1232.42 (complete), Instance1232.43 (complete), Instance1232.44 (complete), Instance1232.45 (complete), Instance1232.46 (complete), Instance1232.47 (complete), and Instance1232.48 (complete)
 11/13/2009 6:17:59 AM -- C:\ESRP HDP_1GB\Soft Recovery TestPerformance_2009_11_12_20_52_12.blg has 2252 samples.
 11/13/2009 6:17:59 AM -- Creating test report ...
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg1 has 0.0090 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg2 has 0.0090 for Avg. Disk sec/Read.
 11/13/2009 6:19:45 AM -- Volume C:\asgluns\sg3 has 0.0089 for Avg. Disk sec/Read.

11/13/2009 6:19:48 AM -- Volume C:\alogluns\log43 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log44 has 0.0018 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log44 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log45 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log45 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log46 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log46 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log47 has 0.0020 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log47 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log48 has 0.0021 for Avg. Disk sec/Write.
11/13/2009 6:19:48 AM -- Volume C:\alogluns\log48 has 0.0000 for Avg. Disk sec/Read.
11/13/2009 6:19:48 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
11/13/2009 6:19:48 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.
11/13/2009 6:19:48 AM -- C:\ESRP HDP_1GB\Soft Recovery
Test\Performance_2009_11_12_20_52_12.xml has 2251 samples queried.



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