

Hitachi Adaptable Modular Storage 2500 Dynamically Provisioned 20,000 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.msp>.

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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 20,000 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-10 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 20,000 users with a 0.576 IOPS per user profile and user mailbox size of 2GB. 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.

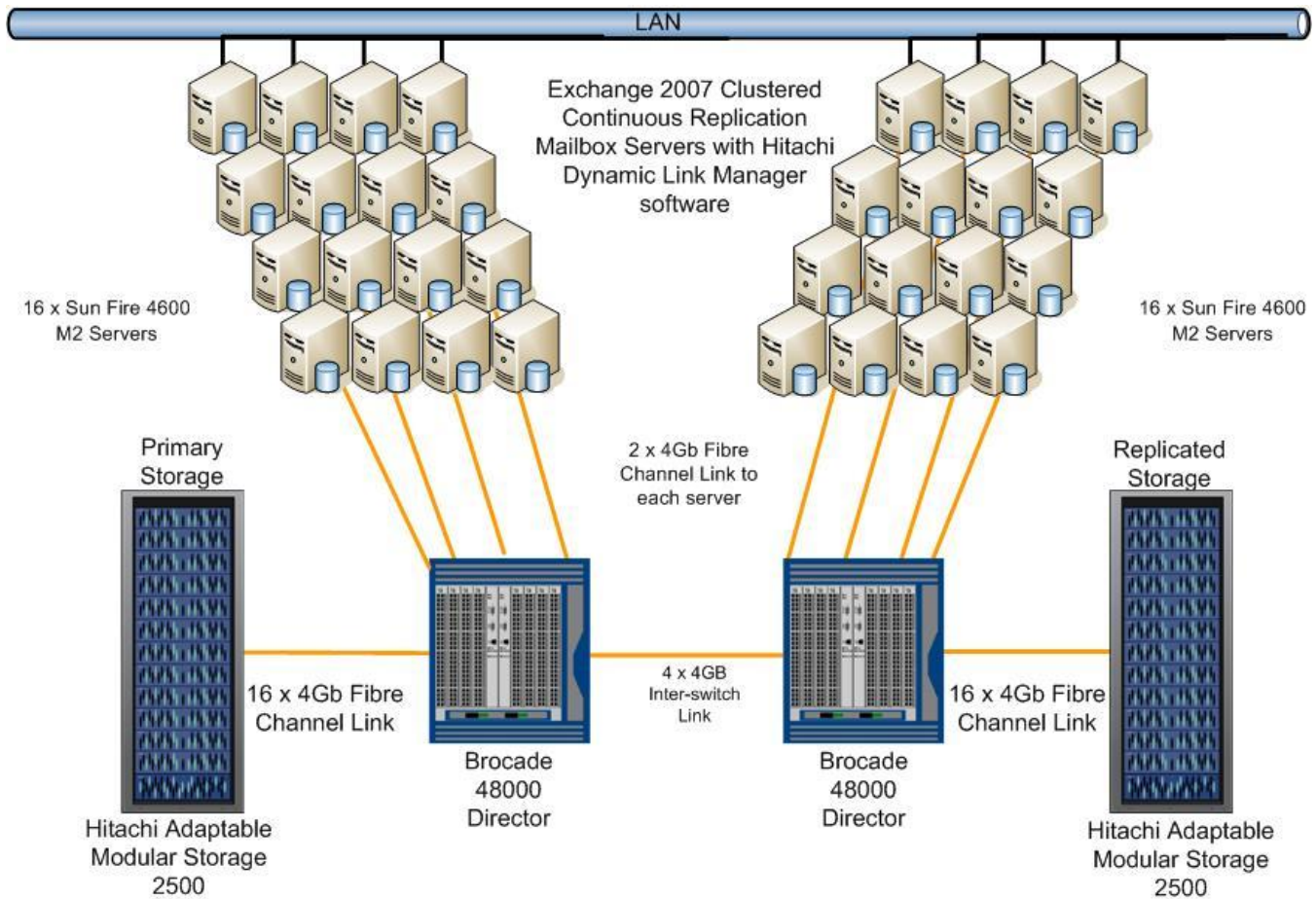
Primarily, Hitachi Dynamic Provisioning software is deployed to avoid the routine issue of hot spots that occur on logical units (LUs) from individual RAID groups when the host workload exceeds the IOPS or throughput capacity of that RAID group. By using many RAID groups as members of a striped Dynamic 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 20,000-user Exchange environment, a 2500 configured with 480 disks (the maximum) and sixteen 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

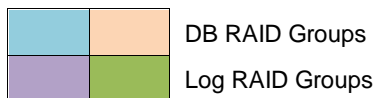


This solution enables organizations to consolidate Exchange Server 2007 CCR deployments on two 2500 storage systems. Using identical hardware and software configurations ensures that primary and replicated copies do not share storage paths, disk spindles or storage controllers. This helps ensure that 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. Hitachi Adaptable Modular Storage 2500 RAID Groups by RKA Tray Layout

<i>Drive Slot</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>
RKA 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 28	53	53	53	53	54	54	54	54	54	54	54	54	55	55	55
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 groups and the log pool was created from six RAID-1+0 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 for the primary storage and servers. An identical configuration is deployed on the replicated storage and servers for this solution.

Table 2. Hitachi Adaptable Modular Storage 2500 Port to Server 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. Hitachi 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. Hitachi 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 primary 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. Hitachi 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 20,000 Exchange users with the following specifications:

- 16 Exchange servers
- 1,250 users on a single Exchange server
- 0.576 IOPS per user
- 1GB 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>	20,000
<i>Number of hosts</i>	16
<i>Number of mailboxes per host</i>	1,250
<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>	26
<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>	0.576
<i>Database LU size</i>	100GB
<i>Log LU size</i>	10GB
<i>Total database size for performance testing</i>	20,000GB
<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
<i>Storage model and OS/firmware revision</i>	1 Hitachi Adaptable Modular Storage 2500 Firmware :0872/E - H WHQL listing: Hitachi Adaptable Modular Storage 2500
<i>Storage cache</i>	32GB
<i>Number of storage controllers</i>	2
<i>Number of storage ports</i>	16
<i>Maximum bandwidth of storage connectivity to host</i>	32Gbit/s (8 x 4Gbit/s ports)
<i>Switch type/model/firmware revision</i>	Brocade 5320, Fabric OS v6.1.1
<i>HBA model and firmware</i>	Emulex LPe11002,FW: 2.82A3
<i>Number of HBAs/host</i>	2 dual-ported HBAs per host, 1 4Gbit/s port used per HBA
<i>Host server type</i>	Sun Fire 4270 2 2.54 GHz quad-core Intel Xeon CPUs, 32GB memory
<i>Total number of disks tested in solution</i>	480
<i>Maximum number of spindles can be hosted in the storage</i>	480

Table 8. Primary Storage Software

<i>HBA driver</i>	STOR Miniport 7.2.1.4
<i>HBA QueueTarget setting</i>	0
<i>HBA QueueDepth setting</i>	32
<i>Multipathing</i>	Hitachi Dynamic Link Manager v6.2.0
<i>Host OS</i>	Microsoft Windows Server 2008 Enterprise x64 Edition Service Pack 1
<i>ESE.dll file version</i>	08.01.0240.005
<i>Replication solution name/version</i>	N/A

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

<i>Disk type, speed and firmware revision</i>	SAS Disk 450GB 15K 4C57
<i>Raw capacity per disk (GB)</i>	450 GB
<i>Number of physical disks in test</i>	432
<i>Total raw storage capacity (GB)</i>	194,400GB (Dynamic Provisioning pool)
<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>	88,344GB (Dynamic Provisioning database pool)
<i>Storage capacity utilization</i>	45.4%
<i>Database capacity utilization</i>	78.2%

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

<i>Disk type, speed and firmware revision</i>	SAS Disk 450 GB 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>	21,600
<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

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

Table 12. ReplicatedStorage Hardware

Storage type	SAN
Storage connectivity	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, Fabric OS v6.1.1
HBA model and firmware	Emulex LPe1 1002,FW: 2.82A3
Number of HBAs/host	2 dual-ported HBAs per host, 1 4Gbit/s port used per HBA
Host server type	Sun Fire 4270 2 2.54 GHz quad-core Intel Xeon CPUs, 32GB memory
Total number of disks tested in solution	480
Maximum number of spindles can be hosted in the storage	480

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	N/A

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
Total raw storage capacity (GB)	194,400GB (Dynamic Provisioning pool)
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)	21,600
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	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>	1115 IOPS
<i>Database Disk Reads/sec</i>	612 IOPS
<i>Database Disk Writes/sec</i>	503 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 17. Individual Server Metrics for Exchange Server (SUN142)

Database I/O	
<i>Database Disk Transfers/sec</i>	1123 IOPS
<i>Database Disk Reads/sec</i>	612 IOPS
<i>Database Disk Writes/sec</i>	511 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>	414 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>	1120 IOPS
<i>Database Disk Reads/sec</i>	612 IOPS
<i>Database Disk Writes/sec</i>	508 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>	1132 IOPS
<i>Database Disk Reads/sec</i>	619 IOPS
<i>Database Disk Writes/sec</i>	513 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>	417 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>	1140 IOPS
<i>Database Disk Reads/sec</i>	624 IOPS
<i>Database Disk Writes/sec</i>	516 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>	418 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

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

Database I/O	
<i>Database Disk Transfers/sec</i>	1133 IOPS
<i>Database Disk Reads/sec</i>	619 IOPS
<i>Database Disk Writes/sec</i>	514 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>	417 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>	1131 IOPS
<i>Database Disk Reads/sec</i>	618 IOPS
<i>Database Disk Writes/sec</i>	513 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>	415 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>	1135 IOPS
<i>Database Disk Reads/sec</i>	621 IOPS
<i>Database Disk Writes/sec</i>	514 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>	416 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>	1115 IOPS
<i>Database Disk Reads/sec</i>	609 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>	410 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>	1132 IOPS
<i>Database Disk Reads/sec</i>	619 IOPS
<i>Database Disk Writes/sec</i>	513 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>	416 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>	1125 IOPS
<i>Database Disk Reads/sec</i>	613 IOPS
<i>Database Disk Writes/sec</i>	511 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>	416 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>	1127 IOPS
<i>Database Disk Reads/sec</i>	614 IOPS
<i>Database Disk Writes/sec</i>	512 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>	414 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>	1124 IOPS
<i>Database Disk Reads/sec</i>	615 IOPS
<i>Database Disk Writes/sec</i>	509 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>	412 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>	1122 IOPS
<i>Database Disk Reads/sec</i>	614 IOPS
<i>Database Disk Writes/sec</i>	508 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>	415 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>	1125 IOPS
<i>Database Disk Reads/sec</i>	615 IOPS
<i>Database Disk Writes/sec</i>	510 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>	414 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>	1129 IOPS
<i>Database Disk Reads/sec</i>	617 IOPS
<i>Database Disk Writes/sec</i>	511 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>	414 IOPS
<i>Average Log Disk Write Latency (ms)</i>	2

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	
<i>Database Disk Transfers/sec</i>	18,028 IOPS
<i>Database Disk Reads/sec</i>	9,853 IOPS
<i>Database Disk Writes/sec</i>	8,175 IOPS
<i>Average Database Disk Read Latency (ms)</i>	9
<i>Average Database Disk Write Latency (ms)</i>	4
Transaction Log I/O	
<i>Average Log Disk Writes/sec</i>	6,629 IOPS
<i>Average Log Disk Write Latency (ms)</i>	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)

<i>MB read/sec per storage group</i>	1.3
<i>MB read/sec total</i>	60.8

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

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

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

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

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>	62.0

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>	61.7

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>	61.9

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>	62.2

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>	62.1

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>	61.6

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>	61.2

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>	61.3

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>	62.1

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>	62.2

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>	61.3

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>	62.4

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>	61.6

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>	9.84
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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)

Average time to play one log file (sec) 9.71

Table 52. Log Read-only Performance for Exchange Server (SUN144)

Average time to play one log file (sec) 9.73

Table 53. Log Read-only Performance for Exchange Server (SUN145)

Average time to play one log file (sec) 9.75

Table 54. Log Read-only Performance for Exchange Server (SUN146)

Average time to play one log file (sec) 9.74

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

Average time to play one log file (sec) 9.82

Table 56. Log Read-only Performance for Exchange Server (SUN148)

Average time to play one log file (sec) 9.74

Table 57. Log Read-only Performance for Exchange Server (SUN149)

Average time to play one log file (sec) 9.81

Table 58. Log Read-only Performance for Exchange Server (SUN150)

Average time to play one log file (sec) 9.64

Table 59. Log Read-only Performance for Exchange Server (SUN151)

Average time to play one log file (sec) 9.02

Table 60. Log Read-only Performance for Exchange Server (SUN152)

Average time to play one log file (sec) 9.77

Table 61. Log Read-only Performance for Exchange Server (SUN153)

Average time to play one log file (sec) 9.75

Table 62. Log Read-only Performance for Exchange Server (SUN154)

Average time to play one log file (sec) 9.74

Table 63. Log Read-only Performance for Exchange Server (SUN155)

<i>Average time to play one log file (sec)</i>	9.83
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Table 64. Log Read-only Performance for Exchange Server (SUN156)

<i>Average time to play one log file (sec)</i>	9.88
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Conclusion

This document details a tested configuration capable of supporting 20,000 users in a CCR configuration with a 0.576 IOPS per user profile and user mailbox size of 2GB. A Hitachi Adaptable Modular Storage 2500, configured with 32GB of cache, sixteen 4Gbit/s Fibre Channel host paths, using Hitachi Dynamic Provisioning (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 20,000 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 can affect performance and capacity requirements and each needs to be factored into the storage design accordingly.

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

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

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

Appendix A – Test Reports

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

Performance Test Result: SUN141

Test Summary

Overall Test Result	Pass
Machine Name	SUN141
Test Description	
Test Start Time	11/17/2009 8:43:31 AM
Test End Time	11/17/2009 12:15:30 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_2GB\Performance Test\Performance_2009_11_17_8_45_12.blg C:\ESRP HDP_2GB\Performance Test\DBChecksum_2009_11_17_12_15_30.blg

Database Sizing and Throughput

Achieved I/O per Second	1115.613
Target I/O per Second	720
Initial database size	2764766445568
Final database size	2771554926592
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	0.009	0.004	13.000	10.570	(n/a)

(C:\asgluns\sg1)					
Database (C:\asgluns\sg2)	0.009	0.004	12.575	10.459	(n/a)
Database (C:\asgluns\sg3)	0.009	0.004	12.573	10.506	(n/a)
Database (C:\asgluns\sg4)	0.009	0.004	11.794	9.593	(n/a)
Database (C:\asgluns\sg5)	0.009	0.004	12.568	10.439	(n/a)
Database (C:\asgluns\sg6)	0.009	0.004	12.808	10.621	(n/a)
Database (C:\asgluns\sg7)	0.009	0.004	12.873	10.448	(n/a)
Database (C:\asgluns\sg8)	0.009	0.004	12.546	10.131	(n/a)
Database (C:\asgluns\sg9)	0.009	0.004	12.699	10.320	(n/a)
Database (C:\asgluns\sg10)	0.009	0.004	12.748	10.578	(n/a)
Database (C:\asgluns\sg11)	0.009	0.004	12.608	10.125	(n/a)
Database (C:\asgluns\sg12)	0.009	0.004	12.779	10.580	(n/a)
Database (C:\asgluns\sg13)	0.009	0.004	12.226	10.192	(n/a)
Database (C:\asgluns\sg14)	0.009	0.004	12.819	10.498	(n/a)
Database (C:\asgluns\sg15)	0.009	0.004	13.097	10.873	(n/a)
Database (C:\asgluns\sg16)	0.009	0.004	13.076	10.800	(n/a)
Database (C:\asgluns\sg17)	0.009	0.004	12.807	10.472	(n/a)
Database (C:\asgluns\sg18)	0.009	0.004	12.892	10.658	(n/a)
Database (C:\asgluns\sg19)	0.009	0.004	12.713	10.610	(n/a)
Database (C:\asgluns\sg20)	0.009	0.004	12.634	10.255	(n/a)
Database (C:\asgluns\sg21)	0.009	0.004	12.894	10.679	(n/a)
Database (C:\asgluns\sg22)	0.009	0.004	12.515	10.318	(n/a)
Database (C:\asgluns\sg23)	0.009	0.004	13.137	10.911	(n/a)
Database (C:\asgluns\sg24)	0.009	0.004	12.474	10.186	(n/a)

Database (C:\asgluns\sg25)	0.009	0.004	12.699	10.376	(n/a)
Database (C:\asgluns\sg26)	0.009	0.004	13.012	10.845	(n/a)
Database (C:\asgluns\sg27)	0.009	0.004	12.902	10.651	(n/a)
Database (C:\asgluns\sg28)	0.009	0.004	12.661	10.370	(n/a)
Database (C:\asgluns\sg29)	0.009	0.004	12.728	10.537	(n/a)
Database (C:\asgluns\sg30)	0.009	0.004	12.630	10.453	(n/a)
Database (C:\asgluns\sg31)	0.009	0.004	12.579	10.421	(n/a)
Database (C:\asgluns\sg32)	0.009	0.004	12.550	10.340	(n/a)
Database (C:\asgluns\sg33)	0.009	0.004	12.469	10.291	(n/a)
Database (C:\asgluns\sg34)	0.009	0.004	13.150	10.852	(n/a)
Database (C:\asgluns\sg35)	0.009	0.004	12.822	10.462	(n/a)
Database (C:\asgluns\sg36)	0.009	0.004	12.955	10.745	(n/a)
Database (C:\asgluns\sg37)	0.009	0.004	12.729	10.542	(n/a)
Database (C:\asgluns\sg38)	0.009	0.004	12.390	10.164	(n/a)
Database (C:\asgluns\sg39)	0.009	0.004	12.861	10.504	(n/a)
Database (C:\asgluns\sg40)	0.009	0.004	12.781	10.319	(n/a)
Database (C:\asgluns\sg41)	0.009	0.004	12.865	10.634	(n/a)
Database (C:\asgluns\sg42)	0.009	0.004	12.752	10.782	(n/a)
Database (C:\asgluns\sg43)	0.009	0.004	12.816	10.340	(n/a)
Database (C:\asgluns\sg44)	0.009	0.004	13.110	10.877	(n/a)
Database (C:\asgluns\sg45)	0.009	0.004	12.795	10.768	(n/a)
Database (C:\asgluns\sg46)	0.009	0.004	13.031	10.472	(n/a)
Database (C:\asgluns\sg47)	0.009	0.004	13.188	10.862	(n/a)
Database	0.009	0.004	12.601	10.253	(n/a)

(C:\asgluns\sg48)					
Log (C:\alogluns\log1)	0.000	0.002	0.000	8.521	4003.676
Log (C:\alogluns\log2)	0.000	0.002	0.000	8.596	4169.725
Log (C:\alogluns\log3)	0.000	0.002	0.000	8.592	4122.792
Log (C:\alogluns\log4)	0.000	0.002	0.000	7.947	3935.857
Log (C:\alogluns\log5)	0.000	0.002	0.000	8.424	4090.201
Log (C:\alogluns\log6)	0.000	0.002	0.000	8.661	3958.621
Log (C:\alogluns\log7)	0.000	0.002	0.000	8.337	4038.631
Log (C:\alogluns\log8)	0.000	0.002	0.000	8.165	3961.459
Log (C:\alogluns\log9)	0.000	0.002	0.000	8.464	4026.946
Log (C:\alogluns\log10)	0.000	0.002	0.000	8.601	4102.267
Log (C:\alogluns\log11)	0.000	0.002	0.000	8.263	3887.095
Log (C:\alogluns\log12)	0.000	0.002	0.000	8.596	4019.979
Log (C:\alogluns\log13)	0.000	0.002	0.000	8.301	4075.396
Log (C:\alogluns\log14)	0.000	0.002	0.000	8.514	4119.405
Log (C:\alogluns\log15)	0.000	0.002	0.000	8.809	4033.757
Log (C:\alogluns\log16)	0.000	0.002	0.000	8.783	3967.122
Log (C:\alogluns\log17)	0.000	0.002	0.000	8.572	4047.012
Log (C:\alogluns\log18)	0.000	0.002	0.000	8.512	4043.879
Log (C:\alogluns\log19)	0.000	0.002	0.000	8.567	4148.065
Log (C:\alogluns\log20)	0.000	0.002	0.000	8.227	3977.727
Log (C:\alogluns\log21)	0.000	0.002	0.000	8.728	3996.447
Log (C:\alogluns\log22)	0.000	0.002	0.000	8.536	4329.270
Log (C:\alogluns\log23)	0.000	0.002	0.000	8.800	4033.286
Log (C:\alogluns\log24)	0.000	0.002	0.000	8.337	4037.028
Log (C:\alogluns\log25)	0.000	0.002	0.000	8.397	3943.644
Log (C:\alogluns\log26)	0.000	0.002	0.000	8.778	4087.288
Log (C:\alogluns\log27)	0.000	0.002	0.000	8.472	3920.878
Log (C:\alogluns\log28)	0.000	0.002	0.000	8.447	3989.611
Log (C:\alogluns\log29)	0.000	0.002	0.000	8.490	4125.392
Log (C:\alogluns\log30)	0.000	0.002	0.000	8.346	3938.000
Log (C:\alogluns\log31)	0.000	0.002	0.000	8.609	4132.396
Log (C:\alogluns\log32)	0.000	0.002	0.000	8.480	4189.335
Log (C:\alogluns\log33)	0.000	0.002	0.000	8.518	4070.861
Log (C:\alogluns\log34)	0.000	0.002	0.000	8.494	4003.476
Log (C:\alogluns\log35)	0.000	0.002	0.000	8.519	4044.545
Log (C:\alogluns\log36)	0.000	0.002	0.000	8.863	4018.381
Log (C:\alogluns\log37)	0.000	0.002	0.000	8.656	3978.426

Log (C:\alogluns\log38)	0.000	0.002	0.000	8.275	4094.410
Log (C:\alogluns\log39)	0.000	0.002	0.000	8.350	3861.812
Log (C:\alogluns\log40)	0.000	0.002	0.000	8.451	3913.313
Log (C:\alogluns\log41)	0.000	0.002	0.000	8.653	4082.558
Log (C:\alogluns\log42)	0.000	0.002	0.000	8.713	4138.155
Log (C:\alogluns\log43)	0.000	0.002	0.000	8.285	4154.522
Log (C:\alogluns\log44)	0.000	0.002	0.000	8.707	4099.442
Log (C:\alogluns\log45)	0.000	0.002	0.000	8.748	3927.058
Log (C:\alogluns\log46)	0.000	0.002	0.000	8.482	3926.246
Log (C:\alogluns\log47)	0.000	0.002	0.000	8.660	4153.806
Log (C:\alogluns\log48)	0.000	0.002	0.000	8.270	3982.871

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	0.661	0.407	1.100
Available MBytes	17811.814	17633.000	18928.000
Free System Page Table Entries	33563794.985	33563450.000	33565292.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	133472804.418	133472256.000	133480448.000
Pool Paged Bytes	210957144.904	210817024.000	212680704.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

```

11/17/2009 8:43:31 AM -- Jetstress testing begins ...
11/17/2009 8:43:31 AM -- Prepare testing begins ...
11/17/2009 8:44:20 AM -- Attaching databases ...
11/17/2009 8:44:20 AM -- Prepare testing ends.
11/17/2009 8:44:20 AM -- Dispatching transactions begins ...
11/17/2009 8:44:20 AM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0
GB)
11/17/2009 8:44:20 AM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8
MB)
11/17/2009 8:45:12 AM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.05 seconds/read).
11/17/2009 8:45:12 AM -- Log write latency thresholds: (average: 0.01
seconds/write, maximum: 0.05 seconds/write).
11/17/2009 8:45:17 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
11/17/2009 8:45:17 AM -- Performance logging begins (interval: 15000 ms).
11/17/2009 8:45:17 AM -- Attaining prerequisites:
11/17/2009 10:09:24 AM -- \MSExchange Database(Jetstresswin)\Database Cache Size,
Last: 11598360000.0 (lower bound: 11596410000.0, upper bound: none)
11/17/2009 12:09:24 PM -- Performance logging ends.
11/17/2009 12:15:22 PM -- JetInterop batch transaction stats: 5223, 5176, 5126,
4979, 5072, 5207, 5117, 5158, 5097, 5164, 5199, 5196, 5098, 5167, 5261, 5228, 5209,
5140, 5196, 5153, 5220, 5221, 5187, 5064, 5141, 5251, 5108, 5018, 5236, 5174, 5154,
5034, 5057, 5233, 5124, 5142, 5176, 5104, 5103, 5200, 5189, 5192, 5172, 5228, 5252,
5133, 5270, and 5098.
11/17/2009 12:15:22 PM -- Dispatching transactions ends.

```

11/17/2009 12:15:22 PM -- Shutting down databases ...
 11/17/2009 12:15:30 PM -- Instance6396.1 (complete), Instance6396.2 (complete),
 Instance6396.3 (complete), Instance6396.4 (complete), Instance6396.5 (complete),
 Instance6396.6 (complete), Instance6396.7 (complete), Instance6396.8 (complete),
 Instance6396.9 (complete), Instance6396.10 (complete), Instance6396.11 (complete),
 Instance6396.12 (complete), Instance6396.13 (complete), Instance6396.14 (complete),
 Instance6396.15 (complete), Instance6396.16 (complete), Instance6396.17 (complete),
 Instance6396.18 (complete), Instance6396.19 (complete), Instance6396.20 (complete),
 Instance6396.21 (complete), Instance6396.22 (complete), Instance6396.23 (complete),
 Instance6396.24 (complete), Instance6396.25 (complete), Instance6396.26 (complete),
 Instance6396.27 (complete), Instance6396.28 (complete), Instance6396.29 (complete),
 Instance6396.30 (complete), Instance6396.31 (complete), Instance6396.32 (complete),
 Instance6396.33 (complete), Instance6396.34 (complete), Instance6396.35 (complete),
 Instance6396.36 (complete), Instance6396.37 (complete), Instance6396.38 (complete),
 Instance6396.39 (complete), Instance6396.40 (complete), Instance6396.41 (complete),
 Instance6396.42 (complete), Instance6396.43 (complete), Instance6396.44 (complete),
 Instance6396.45 (complete), Instance6396.46 (complete), Instance6396.47 (complete),
 and Instance6396.48 (complete)
 11/17/2009 12:15:31 PM -- Performance logging begins (interval: 30000 ms).
 11/17/2009 12:15:31 PM -- Verifying database checksums ...
 11/17/2009 11:44:27 PM -- C:\asgluns\sg1 (100% processed), C:\asgluns\sg2 (100%
 processed), C:\asgluns\sg3 (100% processed), C:\asgluns\sg4 (100% processed),
 C:\asgluns\sg5 (100% processed), C:\asgluns\sg6 (100% processed), C:\asgluns\sg7
 (100% processed), C:\asgluns\sg8 (100% processed), C:\asgluns\sg9 (100% processed),
 C:\asgluns\sg10 (100% processed), C:\asgluns\sg11 (100% processed), C:\asgluns\sg12
 (100% processed), C:\asgluns\sg13 (100% processed), C:\asgluns\sg14 (100%
 processed), C:\asgluns\sg15 (100% processed), C:\asgluns\sg16 (100% processed),
 C:\asgluns\sg17 (100% processed), C:\asgluns\sg18 (100% processed), C:\asgluns\sg19
 (100% processed), C:\asgluns\sg20 (100% processed), C:\asgluns\sg21 (100%
 processed), C:\asgluns\sg22 (100% processed), C:\asgluns\sg23 (100% processed),
 C:\asgluns\sg24 (100% processed), C:\asgluns\sg25 (100% processed), C:\asgluns\sg26
 (100% processed), C:\asgluns\sg27 (100% processed), C:\asgluns\sg28 (100%
 processed), C:\asgluns\sg29 (100% processed), C:\asgluns\sg30 (100% processed),
 C:\asgluns\sg31 (100% processed), C:\asgluns\sg32 (100% processed), C:\asgluns\sg33
 (100% processed), C:\asgluns\sg34 (100% processed), C:\asgluns\sg35 (100%
 processed), C:\asgluns\sg36 (100% processed), C:\asgluns\sg37 (100% processed),
 C:\asgluns\sg38 (100% processed), C:\asgluns\sg39 (100% processed), C:\asgluns\sg40
 (100% processed), C:\asgluns\sg41 (100% processed), C:\asgluns\sg42 (100%
 processed), C:\asgluns\sg43 (100% processed), C:\asgluns\sg44 (100% processed),
 C:\asgluns\sg45 (100% processed), C:\asgluns\sg46 (100% processed), C:\asgluns\sg47
 (100% processed), and C:\asgluns\sg48 (100% processed)
 11/17/2009 11:44:27 PM -- Performance logging ends.
 11/17/2009 11:44:27 PM -- C:\ESRP HDP_2GB\Performance
 Test\DBChecksum_2009_11_17_12_15_30.blg has 1376 samples.
 11/17/2009 11:51:52 PM -- C:\ESRP HDP_2GB\Performance
 Test\DBChecksum_2009_11_17_12_15_30.html is saved.
 11/17/2009 11:51:52 PM -- Verifying log checksums ...
 11/17/2009 11:52:03 PM -- C:\alogluns\log1 (2 logs passed), C:\alogluns\log2 (2
 logs passed), C:\alogluns\log3 (2 logs passed), C:\alogluns\log4 (2 logs passed),
 C:\alogluns\log5 (2 logs passed), C:\alogluns\log6 (2 logs passed),
 C:\alogluns\log7 (2 logs passed), C:\alogluns\log8 (2 logs passed),
 C:\alogluns\log9 (2 logs passed), C:\alogluns\log10 (2 logs passed),
 C:\alogluns\log11 (2 logs passed), C:\alogluns\log12 (2 logs passed),
 C:\alogluns\log13 (2 logs passed), C:\alogluns\log14 (2 logs passed),
 C:\alogluns\log15 (2 logs passed), C:\alogluns\log16 (2 logs passed),
 C:\alogluns\log17 (2 logs passed), C:\alogluns\log18 (2 logs passed),
 C:\alogluns\log19 (2 logs passed), C:\alogluns\log20 (2 logs passed),
 C:\alogluns\log21 (2 logs passed), C:\alogluns\log22 (2 logs passed),
 C:\alogluns\log23 (2 logs passed), C:\alogluns\log24 (2 logs passed),
 C:\alogluns\log25 (2 logs passed), C:\alogluns\log26 (2 logs passed),
 C:\alogluns\log27 (2 logs passed), C:\alogluns\log28 (2 logs passed),
 C:\alogluns\log29 (2 logs passed), C:\alogluns\log30 (2 logs passed),
 C:\alogluns\log31 (2 logs passed), C:\alogluns\log32 (2 logs passed),
 C:\alogluns\log33 (2 logs passed), C:\alogluns\log34 (3 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),

11/17/2009 11:52:45 PM -- Volume C:\alogluns\log38 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:45 PM -- volume C:\alogluns\log39 has 0.0020 for Avg. Disk sec/Write.
 11/17/2009 11:52:45 PM -- Volume C:\alogluns\log39 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:45 PM -- Volume C:\alogluns\log40 has 0.0020 for Avg. Disk sec/Write.
 11/17/2009 11:52:45 PM -- volume C:\alogluns\log40 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:45 PM -- Volume C:\alogluns\log41 has 0.0019 for Avg. Disk sec/Write.
 11/17/2009 11:52:45 PM -- Volume C:\alogluns\log41 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:45 PM -- volume C:\alogluns\log42 has 0.0019 for Avg. Disk sec/Write.
 11/17/2009 11:52:45 PM -- Volume C:\alogluns\log42 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:45 PM -- Volume C:\alogluns\log43 has 0.0019 for Avg. Disk sec/Write.
 11/17/2009 11:52:45 PM -- volume C:\alogluns\log43 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:46 PM -- Volume C:\alogluns\log44 has 0.0019 for Avg. Disk sec/Write.
 11/17/2009 11:52:46 PM -- Volume C:\alogluns\log44 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:46 PM -- volume C:\alogluns\log45 has 0.0020 for Avg. Disk sec/Write.
 11/17/2009 11:52:46 PM -- Volume C:\alogluns\log45 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:46 PM -- Volume C:\alogluns\log46 has 0.0021 for Avg. Disk sec/Write.
 11/17/2009 11:52:46 PM -- volume C:\alogluns\log46 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:46 PM -- Volume C:\alogluns\log47 has 0.0021 for Avg. Disk sec/Write.
 11/17/2009 11:52:46 PM -- Volume C:\alogluns\log47 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:46 PM -- volume C:\alogluns\log48 has 0.0020 for Avg. Disk sec/Write.
 11/17/2009 11:52:46 PM -- Volume C:\alogluns\log48 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 11:52:46 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.
 11/17/2009 11:52:46 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.

Performance Test Database Checksums Result: SUN141

Checksum Statistics - All

<i>Database</i>	<i>Seen pages</i>	<i>Bad pages</i>	<i>Correctable pages</i>	<i>Wrong page no pages</i>	<i>File length / seconds taken</i>
C:\asgluns\sg1\Jetstress1.edb	7050050	0	0	0	55078 MBytes / 41335 seconds
C:\asgluns\sg2\Jetstress1.edb	7048770	0	0	0	55068 MBytes / 41288 seconds
C:\asgluns\sg3\Jetstress1.edb	7050050	0	0	0	55078 MBytes / 41281 seconds
C:\asgluns\sg4\Jetstress1.edb	7046978	0	0	0	55054 MBytes / 41288 seconds
C:\asgluns\sg5\Jetstress1.edb	7046722	0	0	0	55052 MBytes / 39578 seconds

C:\asgluns\sg6\Jetstress1.edb	7051842	0	0	0	55092 MBytes / 39583 seconds
C:\asgluns\sg7\Jetstress1.edb	7046210	0	0	0	55048 MBytes / 39583 seconds
C:\asgluns\sg8\Jetstress1.edb	7047234	0	0	0	55056 MBytes / 39527 seconds
C:\asgluns\sg9\Jetstress1.edb	7046722	0	0	0	55052 MBytes / 41096 seconds
C:\asgluns\sg10\Jetstress1.edb	7047746	0	0	0	55060 MBytes / 41056 seconds
C:\asgluns\sg11\Jetstress1.edb	7049282	0	0	0	55072 MBytes / 41063 seconds
C:\asgluns\sg12\Jetstress1.edb	7047490	0	0	0	55058 MBytes / 41030 seconds
C:\asgluns\sg13\Jetstress1.edb	7048258	0	0	0	55064 MBytes / 40195 seconds
C:\asgluns\sg14\Jetstress1.edb	7044674	0	0	0	55036 MBytes / 40202 seconds
C:\asgluns\sg15\Jetstress1.edb	7048258	0	0	0	55064 MBytes / 40180 seconds
C:\asgluns\sg16\Jetstress1.edb	7046978	0	0	0	55054 MBytes / 40207 seconds
C:\asgluns\sg17\Jetstress1.edb	7049026	0	0	0	55070 MBytes / 41242 seconds
C:\asgluns\sg18\Jetstress1.edb	7046210	0	0	0	55048 MBytes / 41206 seconds
C:\asgluns\sg19\Jetstress1.edb	7046210	0	0	0	55048 MBytes / 41223 seconds
C:\asgluns\sg20\Jetstress1.edb	7049538	0	0	0	55074 MBytes / 41227 seconds
C:\asgluns\sg21\Jetstress1.edb	7047490	0	0	0	55058 MBytes / 39343 seconds
C:\asgluns\sg22\Jetstress1.edb	7050562	0	0	0	55082 MBytes / 39392 seconds
C:\asgluns\sg23\Jetstress1.edb	7048770	0	0	0	55068 MBytes / 39418 seconds
C:\asgluns\sg24\Jetstress1.edb	7045186	0	0	0	55040 MBytes / 39321 seconds
C:\asgluns\sg25\Jetstress1.edb	7050306	0	0	0	55080 MBytes / 41183 seconds
C:\asgluns\sg26\Jetstress1.edb	7047490	0	0	0	55058 MBytes / 41178 seconds
C:\asgluns\sg27\Jetstress1.edb	7050562	0	0	0	55082 MBytes / 41162 seconds
C:\asgluns\sg28\Jetstress1.edb	7047490	0	0	0	55058 MBytes / 41177 seconds
C:\asgluns\sg29\Jetstress1.edb	7050306	0	0	0	55080 MBytes / 40067

					seconds
C:\asgluns\sg30\Jetstress1.edb	7046978	0	0	0	55054 MBytes / 40056 seconds
C:\asgluns\sg31\Jetstress1.edb	7048770	0	0	0	55068 MBytes / 40104 seconds
C:\asgluns\sg32\Jetstress1.edb	7049282	0	0	0	55072 MBytes / 40044 seconds
C:\asgluns\sg33\Jetstress1.edb	7047490	0	0	0	55058 MBytes / 41251 seconds
C:\asgluns\sg34\Jetstress1.edb	7046722	0	0	0	55052 MBytes / 41246 seconds
C:\asgluns\sg35\Jetstress1.edb	7049794	0	0	0	55076 MBytes / 41223 seconds
C:\asgluns\sg36\Jetstress1.edb	7048258	0	0	0	55064 MBytes / 41256 seconds
C:\asgluns\sg37\Jetstress1.edb	7048770	0	0	0	55068 MBytes / 39460 seconds
C:\asgluns\sg38\Jetstress1.edb	7049282	0	0	0	55072 MBytes / 39436 seconds
C:\asgluns\sg39\Jetstress1.edb	7047234	0	0	0	55056 MBytes / 39388 seconds
C:\asgluns\sg40\Jetstress1.edb	7047490	0	0	0	55058 MBytes / 39373 seconds
C:\asgluns\sg41\Jetstress1.edb	7048514	0	0	0	55066 MBytes / 41094 seconds
C:\asgluns\sg42\Jetstress1.edb	7049538	0	0	0	55074 MBytes / 41069 seconds
C:\asgluns\sg43\Jetstress1.edb	7047490	0	0	0	55058 MBytes / 41150 seconds
C:\asgluns\sg44\Jetstress1.edb	7051330	0	0	0	55088 MBytes / 41116 seconds
C:\asgluns\sg45\Jetstress1.edb	7049282	0	0	0	55072 MBytes / 39692 seconds
C:\asgluns\sg46\Jetstress1.edb	7050050	0	0	0	55078 MBytes / 39697 seconds
C:\asgluns\sg47\Jetstress1.edb	7052098	0	0	0	55094 MBytes / 39753 seconds
C:\asgluns\sg48\Jetstress1.edb	7049794	0	0	0	55076 MBytes / 39768 seconds
(Sum)	338324576	0	0	0	2643160 MBytes / 41336 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	0.821	0.002	21.143	0.000

C:\asgluns\sg2	0.801	0.001	21.207	0.000
C:\asgluns\sg3	0.799	0.000	21.259	0.000
C:\asgluns\sg4	0.802	0.000	21.196	0.000
C:\asgluns\sg5	0.770	0.001	22.249	0.000
C:\asgluns\sg6	0.771	0.002	22.235	0.000
C:\asgluns\sg7	0.772	0.001	22.240	0.000
C:\asgluns\sg8	0.771	0.002	22.287	0.000
C:\asgluns\sg9	0.785	0.002	21.428	0.000
C:\asgluns\sg10	0.785	0.002	21.456	0.000
C:\asgluns\sg11	0.785	0.000	21.450	0.000
C:\asgluns\sg12	0.785	0.002	21.470	0.000
C:\asgluns\sg13	0.777	0.001	21.912	0.000
C:\asgluns\sg14	0.778	0.001	21.886	0.000
C:\asgluns\sg15	0.778	0.002	21.914	0.000
C:\asgluns\sg16	0.779	0.001	21.863	0.000
C:\asgluns\sg17	0.788	0.001	21.362	0.000
C:\asgluns\sg18	0.788	0.001	21.378	0.000
C:\asgluns\sg19	0.789	0.001	21.362	0.000
C:\asgluns\sg20	0.789	0.001	21.366	0.000
C:\asgluns\sg21	0.766	0.002	22.386	0.000
C:\asgluns\sg22	0.767	0.001	22.376	0.000
C:\asgluns\sg23	0.770	0.001	22.351	0.000
C:\asgluns\sg24	0.767	0.002	22.399	0.000
C:\asgluns\sg25	0.789	0.001	21.385	0.000
C:\asgluns\sg26	0.790	0.001	21.390	0.000
C:\asgluns\sg27	0.789	0.001	21.399	0.000
C:\asgluns\sg28	0.788	0.000	21.391	0.000
C:\asgluns\sg29	0.778	0.001	21.992	0.000
C:\asgluns\sg30	0.778	0.001	21.980	0.000
C:\asgluns\sg31	0.783	0.000	21.969	0.000
C:\asgluns\sg32	0.779	0.001	22.001	0.000
C:\asgluns\sg33	0.786	0.001	21.339	0.000
C:\asgluns\sg34	0.787	0.001	21.349	0.000
C:\asgluns\sg35	0.786	0.002	21.371	0.000
C:\asgluns\sg36	0.786	0.002	21.302	0.000
C:\asgluns\sg37	0.768	0.001	22.303	0.000
C:\asgluns\sg38	0.768	0.001	22.345	0.000
C:\asgluns\sg39	0.768	0.001	22.371	0.000

C:\asgluns\sg40	0.768	0.000	22.380	0.000
C:\asgluns\sg41	0.782	0.001	21.440	0.000
C:\asgluns\sg42	0.782	0.002	21.441	0.000
C:\asgluns\sg43	0.784	0.001	21.404	0.000
C:\asgluns\sg44	0.783	0.001	21.437	0.000
C:\asgluns\sg45	0.770	0.001	22.210	0.000
C:\asgluns\sg46	0.815	0.002	22.205	0.000
C:\asgluns\sg47	0.771	0.002	22.183	0.000
C:\asgluns\sg48	0.773	0.000	22.165	0.000

Memory System Performance of Checksum

Counter	Average	Minimum	Maximum
% Processor Time	0.535	0.214	0.964
Available MBytes	30436.875	30315.000	30553.000
Free System Page Table Entries	33561271.387	33560817.000	33564450.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	133448192.000	133443584.000	133505024.000
Pool Paged Bytes	210889004.651	210665472.000	212484096.000

Test Log

11/17/2009 8:43:31 AM -- Jetstress testing begins ...
 11/17/2009 8:43:31 AM -- Prepare testing begins ...
 11/17/2009 8:44:20 AM -- Attaching databases ...
 11/17/2009 8:44:20 AM -- Prepare testing ends.
 11/17/2009 8:44:20 AM -- Dispatching transactions begins ...
 11/17/2009 8:44:20 AM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0 GB)
 11/17/2009 8:44:20 AM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8 MB)
 11/17/2009 8:45:12 AM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).
 11/17/2009 8:45:12 AM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).
 11/17/2009 8:45:17 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%, Replaces 5%, Reads 25%, Lazy Commits 55%.
 11/17/2009 8:45:17 AM -- Performance logging begins (interval: 15000 ms).
 11/17/2009 8:45:17 AM -- Attaining prerequisites:
 11/17/2009 10:09:24 AM -- \MSExchange Database(Jetstresswin)\Database Cache Size, Last: 11598360000.0 (lower bound: 11596410000.0, upper bound: none)
 11/17/2009 12:09:24 PM -- Performance logging ends.
 11/17/2009 12:15:22 PM -- JetInterop batch transaction stats: 5223, 5176, 5126, 4979, 5072, 5207, 5117, 5158, 5097, 5164, 5199, 5196, 5098, 5167, 5261, 5228, 5209, 5140, 5196, 5153, 5220, 5221, 5187, 5064, 5141, 5251, 5108, 5018, 5236, 5174, 5154, 5034, 5057, 5233, 5124, 5142, 5176, 5104, 5103, 5200, 5189, 5192, 5172, 5228, 5252, 5133, 5270, and 5098.
 11/17/2009 12:15:22 PM -- Dispatching transactions ends.
 11/17/2009 12:15:22 PM -- Shutting down databases ...
 11/17/2009 12:15:30 PM -- Instance6396.1 (complete), Instance6396.2 (complete), Instance6396.3 (complete), Instance6396.4 (complete), Instance6396.5 (complete), Instance6396.6 (complete), Instance6396.7 (complete), Instance6396.8 (complete), Instance6396.9 (complete), Instance6396.10 (complete), Instance6396.11 (complete), Instance6396.12 (complete), Instance6396.13 (complete), Instance6396.14 (complete),

Instance6396.15 (complete), Instance6396.16 (complete), Instance6396.17 (complete), Instance6396.18 (complete), Instance6396.19 (complete), Instance6396.20 (complete), Instance6396.21 (complete), Instance6396.22 (complete), Instance6396.23 (complete), Instance6396.24 (complete), Instance6396.25 (complete), Instance6396.26 (complete), Instance6396.27 (complete), Instance6396.28 (complete), Instance6396.29 (complete), Instance6396.30 (complete), Instance6396.31 (complete), Instance6396.32 (complete), Instance6396.33 (complete), Instance6396.34 (complete), Instance6396.35 (complete), Instance6396.36 (complete), Instance6396.37 (complete), Instance6396.38 (complete), Instance6396.39 (complete), Instance6396.40 (complete), Instance6396.41 (complete), Instance6396.42 (complete), Instance6396.43 (complete), Instance6396.44 (complete), Instance6396.45 (complete), Instance6396.46 (complete), Instance6396.47 (complete), and Instance6396.48 (complete)
 11/17/2009 12:15:31 PM -- Performance logging begins (interval: 30000 ms).
 11/17/2009 12:15:31 PM -- Verifying database checksums ...
 11/17/2009 11:44:27 PM -- C:\asgluns\sg1 (100% processed), C:\asgluns\sg2 (100% processed), C:\asgluns\sg3 (100% processed), C:\asgluns\sg4 (100% processed), C:\asgluns\sg5 (100% processed), C:\asgluns\sg6 (100% processed), C:\asgluns\sg7 (100% processed), C:\asgluns\sg8 (100% processed), C:\asgluns\sg9 (100% processed), C:\asgluns\sg10 (100% processed), C:\asgluns\sg11 (100% processed), C:\asgluns\sg12 (100% processed), C:\asgluns\sg13 (100% processed), C:\asgluns\sg14 (100% processed), C:\asgluns\sg15 (100% processed), C:\asgluns\sg16 (100% processed), C:\asgluns\sg17 (100% processed), C:\asgluns\sg18 (100% processed), C:\asgluns\sg19 (100% processed), C:\asgluns\sg20 (100% processed), C:\asgluns\sg21 (100% processed), C:\asgluns\sg22 (100% processed), C:\asgluns\sg23 (100% processed), C:\asgluns\sg24 (100% processed), C:\asgluns\sg25 (100% processed), C:\asgluns\sg26 (100% processed), C:\asgluns\sg27 (100% processed), C:\asgluns\sg28 (100% processed), C:\asgluns\sg29 (100% processed), C:\asgluns\sg30 (100% processed), C:\asgluns\sg31 (100% processed), C:\asgluns\sg32 (100% processed), C:\asgluns\sg33 (100% processed), C:\asgluns\sg34 (100% processed), C:\asgluns\sg35 (100% processed), C:\asgluns\sg36 (100% processed), C:\asgluns\sg37 (100% processed), C:\asgluns\sg38 (100% processed), C:\asgluns\sg39 (100% processed), C:\asgluns\sg40 (100% processed), C:\asgluns\sg41 (100% processed), C:\asgluns\sg42 (100% processed), C:\asgluns\sg43 (100% processed), C:\asgluns\sg44 (100% processed), C:\asgluns\sg45 (100% processed), C:\asgluns\sg46 (100% processed), C:\asgluns\sg47 (100% processed), and C:\asgluns\sg48 (100% processed)
 11/17/2009 11:44:27 PM -- Performance logging ends.
 11/17/2009 11:44:27 PM -- C:\ESRP HDP_2GB\Performance Test\DBChecksum_2009_11_17_12_15_30.blg has 1376 samples.

Stress Test Database Performance Result: SUN141

Test Summary

Overall Test Result	Pass
Machine Name	SUN141
Test Description	
Test Start Time	11/15/2009 6:34:30 AM
Test End Time	11/16/2009 7:43:56 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_2GB\Stress Test\Stress_2009_11_15_6_36_12.blg C:\ESRP HDP_2GB\Stress Test\DBChecksum_2009_11_16_19_43_56.blg

Database Sizing and Throughput

Achieved I/O per Second	1124.787
Target I/O per Second	720

Initial database size	2684514729984
Final database size	2764766445568
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	12.680	10.938	(n/a)
Database (C:\asgluns\sg2)	0.009	0.004	12.685	10.926	(n/a)
Database (C:\asgluns\sg3)	0.009	0.004	12.499	10.801	(n/a)
Database (C:\asgluns\sg4)	0.009	0.004	12.654	10.809	(n/a)
Database (C:\asgluns\sg5)	0.009	0.004	12.619	10.850	(n/a)
Database (C:\asgluns\sg6)	0.009	0.004	12.719	10.957	(n/a)
Database (C:\asgluns\sg7)	0.009	0.004	12.586	10.814	(n/a)
Database (C:\asgluns\sg8)	0.009	0.004	12.608	10.854	(n/a)
Database (C:\asgluns\sg9)	0.009	0.004	12.605	10.805	(n/a)
Database (C:\asgluns\sg10)	0.009	0.004	12.456	10.751	(n/a)
Database (C:\asgluns\sg11)	0.009	0.004	12.668	10.929	(n/a)
Database (C:\asgluns\sg12)	0.009	0.004	12.663	10.816	(n/a)

Database (C:\asgluns\sg13)	0.009	0.004	12.646	10.807	(n/a)
Database (C:\asgluns\sg14)	0.009	0.004	12.532	10.773	(n/a)
Database (C:\asgluns\sg15)	0.009	0.004	12.643	10.803	(n/a)
Database (C:\asgluns\sg16)	0.009	0.004	12.550	10.803	(n/a)
Database (C:\asgluns\sg17)	0.009	0.004	12.592	10.816	(n/a)
Database (C:\asgluns\sg18)	0.009	0.004	12.567	10.749	(n/a)
Database (C:\asgluns\sg19)	0.009	0.004	12.640	10.897	(n/a)
Database (C:\asgluns\sg20)	0.009	0.004	12.578	10.765	(n/a)
Database (C:\asgluns\sg21)	0.009	0.004	12.647	10.844	(n/a)
Database (C:\asgluns\sg22)	0.009	0.004	12.527	10.750	(n/a)
Database (C:\asgluns\sg23)	0.009	0.004	12.633	10.872	(n/a)
Database (C:\asgluns\sg24)	0.009	0.004	12.633	10.795	(n/a)
Database (C:\asgluns\sg25)	0.009	0.004	12.533	10.791	(n/a)
Database (C:\asgluns\sg26)	0.009	0.004	12.662	10.853	(n/a)
Database (C:\asgluns\sg27)	0.009	0.004	12.531	10.786	(n/a)
Database (C:\asgluns\sg28)	0.009	0.004	12.575	10.755	(n/a)
Database (C:\asgluns\sg29)	0.009	0.004	12.606	10.775	(n/a)
Database (C:\asgluns\sg30)	0.009	0.004	12.630	10.853	(n/a)
Database (C:\asgluns\sg31)	0.009	0.004	12.543	10.770	(n/a)
Database (C:\asgluns\sg32)	0.009	0.004	12.714	10.897	(n/a)
Database (C:\asgluns\sg33)	0.009	0.004	12.604	10.876	(n/a)
Database (C:\asgluns\sg34)	0.009	0.004	12.534	10.814	(n/a)
Database (C:\asgluns\sg35)	0.009	0.004	12.580	10.898	(n/a)
Database	0.009	0.004	12.452	10.773	(n/a)

(C:\asgluns\sg36)					
Database (C:\asgluns\sg37)	0.009	0.004	12.543	10.818	(n/a)
Database (C:\asgluns\sg38)	0.009	0.004	12.646	10.922	(n/a)
Database (C:\asgluns\sg39)	0.009	0.004	12.582	10.825	(n/a)
Database (C:\asgluns\sg40)	0.009	0.004	12.594	10.814	(n/a)
Database (C:\asgluns\sg41)	0.009	0.004	12.590	10.847	(n/a)
Database (C:\asgluns\sg42)	0.009	0.004	12.548	10.826	(n/a)
Database (C:\asgluns\sg43)	0.009	0.004	12.641	10.828	(n/a)
Database (C:\asgluns\sg44)	0.009	0.004	12.612	10.889	(n/a)
Database (C:\asgluns\sg45)	0.009	0.004	12.500	10.678	(n/a)
Database (C:\asgluns\sg46)	0.009	0.004	12.559	10.846	(n/a)
Database (C:\asgluns\sg47)	0.009	0.004	12.571	10.882	(n/a)
Database (C:\asgluns\sg48)	0.009	0.004	12.797	11.074	(n/a)
Log (C:\alogluns\log1)	0.000	0.002	0.000	8.964	4057.574
Log (C:\alogluns\log2)	0.000	0.002	0.000	8.938	4078.781
Log (C:\alogluns\log3)	0.000	0.002	0.000	8.861	4090.875
Log (C:\alogluns\log4)	0.000	0.002	0.000	8.827	4025.394
Log (C:\alogluns\log5)	0.000	0.002	0.000	8.864	4051.754
Log (C:\alogluns\log6)	0.000	0.002	0.000	8.999	4067.377
Log (C:\alogluns\log7)	0.000	0.002	0.000	8.832	4090.910
Log (C:\alogluns\log8)	0.000	0.002	0.000	8.876	4039.579
Log (C:\alogluns\log9)	0.000	0.002	0.000	8.825	4063.331
Log (C:\alogluns\log10)	0.000	0.002	0.000	8.799	4055.324
Log (C:\alogluns\log11)	0.000	0.002	0.000	8.924	4063.162
Log (C:\alogluns\log12)	0.000	0.002	0.000	8.826	4035.461
Log (C:\alogluns\log13)	0.000	0.002	0.000	8.828	4061.963
Log (C:\alogluns\log14)	0.000	0.002	0.000	8.784	4078.564
Log (C:\alogluns\log15)	0.000	0.002	0.000	8.800	4060.743
Log (C:\alogluns\log16)	0.000	0.002	0.000	8.827	4065.991
Log (C:\alogluns\log17)	0.000	0.002	0.000	8.827	4102.732
Log (C:\alogluns\log18)	0.000	0.002	0.000	8.768	4077.815

Log (C:\alogluns\log19)	0.000	0.002	0.000	8.870	4055.811
Log (C:\alogluns\log20)	0.000	0.002	0.000	8.850	4065.988
Log (C:\alogluns\log21)	0.000	0.002	0.000	8.803	4059.186
Log (C:\alogluns\log22)	0.000	0.002	0.000	8.778	4082.458
Log (C:\alogluns\log23)	0.000	0.002	0.000	8.873	4082.753
Log (C:\alogluns\log24)	0.000	0.002	0.000	8.777	4012.613
Log (C:\alogluns\log25)	0.000	0.002	0.000	8.867	4101.522
Log (C:\alogluns\log26)	0.000	0.002	0.000	8.828	4077.606
Log (C:\alogluns\log27)	0.000	0.002	0.000	8.854	4116.347
Log (C:\alogluns\log28)	0.000	0.002	0.000	8.825	4060.763
Log (C:\alogluns\log29)	0.000	0.002	0.000	8.804	4097.658
Log (C:\alogluns\log30)	0.000	0.002	0.000	8.835	4065.318
Log (C:\alogluns\log31)	0.000	0.002	0.000	8.796	4052.667
Log (C:\alogluns\log32)	0.000	0.002	0.000	8.878	4088.787
Log (C:\alogluns\log33)	0.000	0.002	0.000	8.855	4097.174
Log (C:\alogluns\log34)	0.000	0.002	0.000	8.796	4062.136
Log (C:\alogluns\log35)	0.000	0.002	0.000	8.890	4103.955
Log (C:\alogluns\log36)	0.000	0.002	0.000	8.777	4043.323
Log (C:\alogluns\log37)	0.000	0.002	0.000	8.827	4101.720
Log (C:\alogluns\log38)	0.000	0.002	0.000	8.922	4108.495
Log (C:\alogluns\log39)	0.000	0.002	0.000	8.810	4053.962
Log (C:\alogluns\log40)	0.000	0.002	0.000	8.801	4050.456
Log (C:\alogluns\log41)	0.000	0.002	0.000	8.833	4027.637
Log (C:\alogluns\log42)	0.000	0.002	0.000	8.844	4065.476
Log (C:\alogluns\log43)	0.000	0.002	0.000	8.823	4087.123
Log (C:\alogluns\log44)	0.000	0.002	0.000	8.914	4071.431
Log (C:\alogluns\log45)	0.000	0.002	0.000	8.762	4098.256
Log (C:\alogluns\log46)	0.000	0.002	0.000	8.829	4063.472
Log (C:\alogluns\log47)	0.000	0.002	0.000	8.856	4096.344
Log (C:\alogluns\log48)	0.000	0.002	0.000	9.015	4088.533

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	0.672	0.311	1.378
Available MBytes	17744.506	17617.000	18891.000
Free System Page Table Entries	33564599.679	33563617.000	33566965.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	133667684.426	133652480.000	133722112.000

Pool Paged Bytes	219361542.921	219205632.000	221102080.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

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11/13/2009 10:17:05 PM -- Prepare testing begins ...
11/13/2009 10:17:06 PM -- Creating C:\asgluns\sg1\Jetstress1.edb.
11/13/2009 10:17:06 PM -- Database cache settings: (minimum: 32.0 MB, maximum:
256.0 MB)
11/13/2009 10:17:06 PM -- Database flush thresholds: (start: 2.6 MB, stop: 5.1 MB)
11/13/2009 10:56:02 PM -- 60.0% of 52.1 GB complete (6358676 records inserted).
11/14/2009 6:58:14 AM -- 100.0% of 52.1 GB complete (11055065 records inserted).
11/14/2009 7:01:33 AM -- Duplicating 47 databases:
11/14/2009 9:42:34 PM -- 100.0% of 2.4 TB complete (2.4 TB duplicated).
11/14/2009 9:43:23 PM -- Attaching databases ...
11/14/2009 9:43:23 PM -- Prepare testing ends.
11/15/2009 6:34:30 AM -- Jetstress testing begins ...
11/15/2009 6:34:30 AM -- Prepare testing begins ...
11/15/2009 6:35:19 AM -- Attaching databases ...
11/15/2009 6:35:19 AM -- Prepare testing ends.
11/15/2009 6:35:19 AM -- Dispatching transactions begins ...
11/15/2009 6:35:19 AM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0
GB)
11/15/2009 6:35:19 AM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8
MB)
11/15/2009 6:36:12 AM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.1 seconds/read).
11/15/2009 6:36:12 AM -- Log write latency thresholds: (average: 0.01
seconds/write, maximum: 0.1 seconds/write).
11/15/2009 6:36:17 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
11/15/2009 6:36:17 AM -- Performance logging begins (interval: 15000 ms).
11/15/2009 6:36:17 AM -- Attaining prerequisites:
11/15/2009 8:06:04 AM -- \MSExchange Database(Jetstresswin)\Database Cache Size,
Last: 11597140000.0 (lower bound: 11596410000.0, upper bound: none)
11/16/2009 8:06:04 AM -- Performance logging ends.
11/16/2009 7:43:48 PM -- JetInterop batch transaction stats: 57733, 57827, 57777,
57825, 57737, 58177, 57687, 57757, 57378, 57160, 57537, 57725, 57690, 57169, 57685,
57357, 57533, 57606, 57417, 57703, 57349, 57485, 57432, 57502, 57586, 57905, 57533,
57399, 57932, 57659, 57524, 58169, 57603, 57634, 57543, 57512, 57583, 57754, 57702,
57573, 57652, 57534, 57880, 57828, 57328, 57767, 57600, and 58295.
11/16/2009 7:43:48 PM -- Dispatching transactions ends.
11/16/2009 7:43:48 PM -- Shutting down databases ...
11/16/2009 7:43:56 PM -- Instance3100.1 (complete), Instance3100.2 (complete),
Instance3100.3 (complete), Instance3100.4 (complete), Instance3100.5 (complete),
Instance3100.6 (complete), Instance3100.7 (complete), Instance3100.8 (complete),
Instance3100.9 (complete), Instance3100.10 (complete), Instance3100.11 (complete),
Instance3100.12 (complete), Instance3100.13 (complete), Instance3100.14 (complete),
Instance3100.15 (complete), Instance3100.16 (complete), Instance3100.17 (complete),
Instance3100.18 (complete), Instance3100.19 (complete), Instance3100.20 (complete),
Instance3100.21 (complete), Instance3100.22 (complete), Instance3100.23 (complete),
Instance3100.24 (complete), Instance3100.25 (complete), Instance3100.26 (complete),
Instance3100.27 (complete), Instance3100.28 (complete), Instance3100.29 (complete),
Instance3100.30 (complete), Instance3100.31 (complete), Instance3100.32 (complete),
Instance3100.33 (complete), Instance3100.34 (complete), Instance3100.35 (complete),
Instance3100.36 (complete), Instance3100.37 (complete), Instance3100.38 (complete),
Instance3100.39 (complete), Instance3100.40 (complete), Instance3100.41 (complete),
Instance3100.42 (complete), Instance3100.43 (complete), Instance3100.44 (complete),
Instance3100.45 (complete), Instance3100.46 (complete), Instance3100.47 (complete),
and Instance3100.48 (complete)
11/16/2009 7:43:57 PM -- Performance logging begins (interval: 30000 ms).
11/16/2009 7:43:57 PM -- Verifying database checksums ...
11/17/2009 7:20:16 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

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(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)
11/17/2009 7:20:16 AM -- Performance logging ends.
11/17/2009 7:20:16 AM -- C:\ESRP HDP_2GB\Stress Test\DBChecksum_2009_11_16_19_43_56.blg has 1391 samples.
11/17/2009 7:27:03 AM -- C:\ESRP HDP_2GB\Stress Test\DBChecksum_2009_11_16_19_43_56.html is saved.
11/17/2009 7:27:03 AM -- verifying log checksums ...
11/17/2009 7:27:13 AM -- C:\alogluns\log1 (2 logs passed), C:\alogluns\log2 (2 logs passed), C:\alogluns\log3 (2 logs passed), C:\alogluns\log4 (2 logs passed), C:\alogluns\log5 (2 logs passed), C:\alogluns\log6 (2 logs passed), C:\alogluns\log7 (2 logs passed), C:\alogluns\log8 (2 logs passed), C:\alogluns\log9 (2 logs passed), C:\alogluns\log10 (2 logs passed), C:\alogluns\log11 (2 logs passed), C:\alogluns\log12 (2 logs passed), C:\alogluns\log13 (2 logs passed), C:\alogluns\log14 (2 logs passed), C:\alogluns\log15 (2 logs passed), C:\alogluns\log16 (2 logs passed), C:\alogluns\log17 (2 logs passed), C:\alogluns\log18 (2 logs passed), C:\alogluns\log19 (2 logs passed), C:\alogluns\log20 (2 logs passed), C:\alogluns\log21 (2 logs passed), C:\alogluns\log22 (3 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)
11/17/2009 7:27:13 AM -- C:\ESRP HDP_2GB\Stress Test\Stress_2009_11_15_6_36_12.blg has 6090 samples.
11/17/2009 7:27:13 AM -- Creating test report ...
11/17/2009 7:31:46 AM -- Volume C:\asgluns\sg1 has 0.0092 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- Volume C:\asgluns\sg2 has 0.0088 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- volume C:\asgluns\sg3 has 0.0088 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- Volume C:\asgluns\sg4 has 0.0088 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- Volume C:\asgluns\sg5 has 0.0089 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- volume C:\asgluns\sg6 has 0.0089 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- Volume C:\asgluns\sg7 has 0.0089 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- Volume C:\asgluns\sg8 has 0.0089 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- volume C:\asgluns\sg9 has 0.0088 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- Volume C:\asgluns\sg10 has 0.0088 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- Volume C:\asgluns\sg11 has 0.0088 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- volume C:\asgluns\sg12 has 0.0088 for Avg. Disk sec/Read.
11/17/2009 7:31:46 AM -- Volume C:\asgluns\sg13 has 0.0089 for Avg. Disk sec/Read.
11/17/2009 7:31:47 AM -- Volume C:\asgluns\sg14 has 0.0089 for Avg. Disk sec/Read.
11/17/2009 7:31:47 AM -- volume C:\asgluns\sg15 has 0.0089 for Avg. Disk sec/Read.
11/17/2009 7:31:47 AM -- Volume C:\asgluns\sg16 has 0.0089 for Avg. Disk sec/Read.
11/17/2009 7:31:47 AM -- Volume C:\asgluns\sg17 has 0.0088 for Avg. Disk sec/Read.

11/17/2009 7:31:50 AM -- Volume C:\alogluns\log46 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 7:31:50 AM -- volume C:\alogluns\log47 has 0.0021 for Avg. Disk sec/Write.
 11/17/2009 7:31:50 AM -- Volume C:\alogluns\log47 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 7:31:50 AM -- Volume C:\alogluns\log48 has 0.0021 for Avg. Disk sec/Write.
 11/17/2009 7:31:50 AM -- volume C:\alogluns\log48 has 0.0000 for Avg. Disk sec/Read.
 11/17/2009 7:31:50 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
 11/17/2009 7:31:50 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.
 11/17/2009 7:31:50 AM -- C:\ESRP HDP_2GB\Stress Test\Stress_2009_11_15_6_36_12.xml has 5732 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	7032898	0	0	0	54944 MBytes / 41778 seconds
C:\asgluns\sg2\Jetstress1.edb	7031362	0	0	0	54932 MBytes / 41650 seconds
C:\asgluns\sg3\Jetstress1.edb	7031874	0	0	0	54936 MBytes / 41654 seconds
C:\asgluns\sg4\Jetstress1.edb	7030082	0	0	0	54922 MBytes / 41671 seconds
C:\asgluns\sg5\Jetstress1.edb	7029570	0	0	0	54918 MBytes / 40285 seconds
C:\asgluns\sg6\Jetstress1.edb	7034178	0	0	0	54954 MBytes / 40301 seconds
C:\asgluns\sg7\Jetstress1.edb	7029570	0	0	0	54918 MBytes / 40278 seconds
C:\asgluns\sg8\Jetstress1.edb	7030338	0	0	0	54924 MBytes / 40272 seconds
C:\asgluns\sg9\Jetstress1.edb	7030594	0	0	0	54926 MBytes / 40901 seconds
C:\asgluns\sg10\Jetstress1.edb	7030594	0	0	0	54926 MBytes / 40827 seconds
C:\asgluns\sg11\Jetstress1.edb	7032642	0	0	0	54942 MBytes / 40886 seconds
C:\asgluns\sg12\Jetstress1.edb	7030082	0	0	0	54922 MBytes / 40823 seconds
C:\asgluns\sg13\Jetstress1.edb	7030850	0	0	0	54928 MBytes / 40184 seconds
C:\asgluns\sg14\Jetstress1.edb	7027266	0	0	0	54900 MBytes / 40177 seconds
C:\asgluns\sg15\Jetstress1.edb	7030594	0	0	0	54926 MBytes / 40177 seconds
C:\asgluns\sg16\Jetstress1.edb	7029570	0	0	0	54918 MBytes / 40175 seconds

					seconds
C:\asgluns\sg17\Jetstress1.edb	7031618	0	0	0	54934 MBytes / 41413 seconds
C:\asgluns\sg18\Jetstress1.edb	7029058	0	0	0	54914 MBytes / 41371 seconds
C:\asgluns\sg19\Jetstress1.edb	7029058	0	0	0	54914 MBytes / 41355 seconds
C:\asgluns\sg20\Jetstress1.edb	7032386	0	0	0	54940 MBytes / 41408 seconds
C:\asgluns\sg21\Jetstress1.edb	7030338	0	0	0	54924 MBytes / 40224 seconds
C:\asgluns\sg22\Jetstress1.edb	7032386	0	0	0	54940 MBytes / 40229 seconds
C:\asgluns\sg23\Jetstress1.edb	7031618	0	0	0	54934 MBytes / 40219 seconds
C:\asgluns\sg24\Jetstress1.edb	7028546	0	0	0	54910 MBytes / 40181 seconds
C:\asgluns\sg25\Jetstress1.edb	7033666	0	0	0	54950 MBytes / 41014 seconds
C:\asgluns\sg26\Jetstress1.edb	7029826	0	0	0	54920 MBytes / 41002 seconds
C:\asgluns\sg27\Jetstress1.edb	7033410	0	0	0	54948 MBytes / 41016 seconds
C:\asgluns\sg28\Jetstress1.edb	7030082	0	0	0	54922 MBytes / 41012 seconds
C:\asgluns\sg29\Jetstress1.edb	7032898	0	0	0	54944 MBytes / 39878 seconds
C:\asgluns\sg30\Jetstress1.edb	7030338	0	0	0	54924 MBytes / 39795 seconds
C:\asgluns\sg31\Jetstress1.edb	7031106	0	0	0	54930 MBytes / 39838 seconds
C:\asgluns\sg32\Jetstress1.edb	7032386	0	0	0	54940 MBytes / 39804 seconds
C:\asgluns\sg33\Jetstress1.edb	7029826	0	0	0	54920 MBytes / 41559 seconds
C:\asgluns\sg34\Jetstress1.edb	7029314	0	0	0	54916 MBytes / 41558 seconds
C:\asgluns\sg35\Jetstress1.edb	7032898	0	0	0	54944 MBytes / 41568 seconds
C:\asgluns\sg36\Jetstress1.edb	7030850	0	0	0	54928 MBytes / 41546 seconds
C:\asgluns\sg37\Jetstress1.edb	7031874	0	0	0	54936 MBytes / 40234 seconds
C:\asgluns\sg38\Jetstress1.edb	7032130	0	0	0	54938 MBytes / 40234 seconds
C:\asgluns\sg39\Jetstress1.edb	7030338	0	0	0	54924 MBytes / 40212 seconds

C:\asgluns\sg40\Jetstress1.edb	7030082	0	0	0	54922 MBytes / 40237 seconds
C:\asgluns\sg41\Jetstress1.edb	7031106	0	0	0	54930 MBytes / 40884 seconds
C:\asgluns\sg42\Jetstress1.edb	7031618	0	0	0	54934 MBytes / 40876 seconds
C:\asgluns\sg43\Jetstress1.edb	7030338	0	0	0	54924 MBytes / 40806 seconds
C:\asgluns\sg44\Jetstress1.edb	7032898	0	0	0	54944 MBytes / 40748 seconds
C:\asgluns\sg45\Jetstress1.edb	7031362	0	0	0	54932 MBytes / 39939 seconds
C:\asgluns\sg46\Jetstress1.edb	7032898	0	0	0	54944 MBytes / 39913 seconds
C:\asgluns\sg47\Jetstress1.edb	7034690	0	0	0	54958 MBytes / 39934 seconds
C:\asgluns\sg48\Jetstress1.edb	7032898	0	0	0	54944 MBytes / 39907 seconds
(Sum)	337495904	0	0	0	2636686 MBytes / 41778 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	0.822	0.002	20.995	0.000
C:\asgluns\sg2	0.804	0.001	21.037	0.000
C:\asgluns\sg3	0.804	0.002	21.026	0.000
C:\asgluns\sg4	0.805	0.002	21.039	0.000
C:\asgluns\sg5	0.779	0.001	21.790	0.000
C:\asgluns\sg6	0.782	0.002	21.761	0.000
C:\asgluns\sg7	0.780	0.001	21.804	0.000
C:\asgluns\sg8	0.779	0.002	21.772	0.000
C:\asgluns\sg9	0.785	0.001	21.463	0.000
C:\asgluns\sg10	0.785	0.002	21.523	0.000
C:\asgluns\sg11	0.787	0.003	21.497	0.000
C:\asgluns\sg12	0.787	0.002	21.523	0.000
C:\asgluns\sg13	0.780	0.001	21.850	0.000
C:\asgluns\sg14	0.795	0.001	21.785	0.000
C:\asgluns\sg15	0.782	0.001	21.817	0.000
C:\asgluns\sg16	0.781	0.001	21.805	0.000
C:\asgluns\sg17	0.790	0.000	21.214	0.000
C:\asgluns\sg18	0.791	0.001	21.236	0.000
C:\asgluns\sg19	0.791	0.000	21.245	0.000

C:\asgluns\sg20	0.791	0.002	21.222	0.000
C:\asgluns\sg21	0.780	0.001	21.836	0.000
C:\asgluns\sg22	0.781	0.001	21.840	0.000
C:\asgluns\sg23	0.781	0.001	21.848	0.000
C:\asgluns\sg24	0.780	0.001	21.863	0.000
C:\asgluns\sg25	0.786	0.001	21.405	0.000
C:\asgluns\sg26	0.789	0.001	21.409	0.000
C:\asgluns\sg27	0.788	0.001	21.398	0.000
C:\asgluns\sg28	0.787	0.001	21.397	0.000
C:\asgluns\sg29	0.776	0.001	22.021	0.000
C:\asgluns\sg30	0.776	0.002	22.067	0.000
C:\asgluns\sg31	0.776	0.001	22.050	0.000
C:\asgluns\sg32	0.776	0.003	22.066	0.000
C:\asgluns\sg33	0.793	0.001	21.109	0.000
C:\asgluns\sg34	0.795	0.002	21.110	0.000
C:\asgluns\sg35	0.795	0.001	21.146	0.000
C:\asgluns\sg36	0.807	0.002	21.137	0.000
C:\asgluns\sg37	0.777	0.002	21.828	0.000
C:\asgluns\sg38	0.779	0.001	21.828	0.000
C:\asgluns\sg39	0.779	0.001	21.847	0.000
C:\asgluns\sg40	0.778	0.002	21.815	0.000
C:\asgluns\sg41	0.781	0.001	21.493	0.000
C:\asgluns\sg42	0.783	0.001	21.500	0.000
C:\asgluns\sg43	0.783	0.001	21.534	0.000
C:\asgluns\sg44	0.781	0.001	21.573	0.000
C:\asgluns\sg45	0.778	0.002	22.002	0.000
C:\asgluns\sg46	0.777	0.002	22.023	0.000
C:\asgluns\sg47	0.777	0.002	22.018	0.000
C:\asgluns\sg48	0.778	0.001	22.021	0.000

Memory System Performance of Checksum

<i>Counter</i>	<i>Average</i>	<i>Minimum</i>	<i>Maximum</i>
% Processor Time	0.736	0.140	19.588
Available MBytes	30444.849	30279.000	30548.000
Free System Page Table Entries	33563013.560	33562446.000	33566248.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	133580050.588	133484544.000	133689344.000
Pool Paged Bytes	215657883.514	204951552.000	226394112.000

Test Log

11/13/2009 10:17:05 PM -- Prepare testing begins ...
11/13/2009 10:17:06 PM -- Creating C:\asgluns\sg1\Jetstress1.edb.
11/13/2009 10:17:06 PM -- Database cache settings: (minimum: 32.0 MB, maximum: 256.0 MB)
11/13/2009 10:17:06 PM -- Database flush thresholds: (start: 2.6 MB, stop: 5.1 MB)
11/13/2009 10:56:02 PM -- 60.0% of 52.1 GB complete (6358676 records inserted).
11/14/2009 6:58:14 AM -- 100.0% of 52.1 GB complete (11055065 records inserted).
11/14/2009 7:01:33 AM -- Duplicating 47 databases:
11/14/2009 9:42:34 PM -- 100.0% of 2.4 TB complete (2.4 TB duplicated).
11/14/2009 9:43:23 PM -- Attaching databases ...
11/14/2009 9:43:23 PM -- Prepare testing ends.
11/15/2009 6:34:30 AM -- Jetstress testing begins ...
11/15/2009 6:34:30 AM -- Prepare testing begins ...
11/15/2009 6:35:19 AM -- Attaching databases ...
11/15/2009 6:35:19 AM -- Prepare testing ends.
11/15/2009 6:35:19 AM -- Dispatching transactions begins ...
11/15/2009 6:35:19 AM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0 GB)
11/15/2009 6:35:19 AM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8 MB)
11/15/2009 6:36:12 AM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.1 seconds/read).
11/15/2009 6:36:12 AM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.1 seconds/write).
11/15/2009 6:36:17 AM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%, Replaces 5%, Reads 25%, Lazy Commits 55%.
11/15/2009 6:36:17 AM -- Performance logging begins (interval: 15000 ms).
11/15/2009 6:36:17 AM -- Attaining prerequisites:
11/15/2009 8:06:04 AM -- \MSExchange Database(Jetstresswin)\Database Cache Size, Last: 11597140000.0 (lower bound: 11596410000.0, upper bound: none)
11/16/2009 8:06:04 AM -- Performance logging ends.
11/16/2009 7:43:48 PM -- JetInterop batch transaction stats: 57733, 57827, 57777, 57825, 57737, 58177, 57687, 57757, 57378, 57160, 57537, 57725, 57690, 57169, 57685, 57357, 57533, 57606, 57417, 57703, 57349, 57485, 57432, 57502, 57586, 57905, 57533, 57399, 57932, 57659, 57524, 58169, 57603, 57634, 57543, 57512, 57583, 57754, 57702, 57573, 57652, 57534, 57880, 57828, 57328, 57767, 57600, and 58295.
11/16/2009 7:43:48 PM -- Dispatching transactions ends.
11/16/2009 7:43:48 PM -- Shutting down databases ...
11/16/2009 7:43:56 PM -- Instance3100.1 (complete), Instance3100.2 (complete), Instance3100.3 (complete), Instance3100.4 (complete), Instance3100.5 (complete), Instance3100.6 (complete), Instance3100.7 (complete), Instance3100.8 (complete), Instance3100.9 (complete), Instance3100.10 (complete), Instance3100.11 (complete), Instance3100.12 (complete), Instance3100.13 (complete), Instance3100.14 (complete), Instance3100.15 (complete), Instance3100.16 (complete), Instance3100.17 (complete), Instance3100.18 (complete), Instance3100.19 (complete), Instance3100.20 (complete), Instance3100.21 (complete), Instance3100.22 (complete), Instance3100.23 (complete), Instance3100.24 (complete), Instance3100.25 (complete), Instance3100.26 (complete), Instance3100.27 (complete), Instance3100.28 (complete), Instance3100.29 (complete), Instance3100.30 (complete), Instance3100.31 (complete), Instance3100.32 (complete), Instance3100.33 (complete), Instance3100.34 (complete), Instance3100.35 (complete), Instance3100.36 (complete), Instance3100.37 (complete), Instance3100.38 (complete), Instance3100.39 (complete), Instance3100.40 (complete), Instance3100.41 (complete), Instance3100.42 (complete), Instance3100.43 (complete), Instance3100.44 (complete), Instance3100.45 (complete), Instance3100.46 (complete), Instance3100.47 (complete), and Instance3100.48 (complete)
11/16/2009 7:43:57 PM -- Performance logging begins (interval: 30000 ms).
11/16/2009 7:43:57 PM -- verifying database checksums ...
11/17/2009 7:20:16 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)
 11/17/2009 7:20:16 AM -- Performance logging ends.
 11/17/2009 7:20:16 AM -- C:\ESRP HDP_2GB\Stress
 Test\DBChecksum_2009_11_16_19_43_56.blg has 1391 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>
Instance3164.1	55076.52	12:26:32	1.23
Instance3164.2	55066.52	12:11:02	1.26
Instance3164.3	55076.52	12:11:37	1.25
Instance3164.4	55052.52	12:23:53	1.23
Instance3164.5	55050.52	12:00:43	1.27
Instance3164.6	55090.52	11:49:50	1.29
Instance3164.7	55046.52	11:55:25	1.28
Instance3164.8	55054.52	12:05:57	1.26
Instance3164.9	55050.52	12:02:57	1.27
Instance3164.10	55058.52	11:58:06	1.28
Instance3164.11	55070.52	12:02:59	1.27
Instance3164.12	55056.52	11:50:37	1.29
Instance3164.13	55062.52	11:30:05	1.33
Instance3164.14	55034.52	11:39:22	1.31
Instance3164.15	55062.52	11:50:29	1.29
Instance3164.16	55052.52	11:48:10	1.30
Instance3164.17	55068.52	11:55:35	1.28
Instance3164.18	55046.52	12:23:56	1.23
Instance3164.19	55046.52	12:24:00	1.23
Instance3164.20	55072.52	11:23:00	1.34
Instance3164.21	55056.52	11:38:20	1.31
Instance3164.22	55080.52	11:08:58	1.37
Instance3164.23	55066.52	11:23:26	1.34
Instance3164.24	55038.52	11:31:44	1.33
Instance3164.25	55078.52	11:40:49	1.31

Instance3164.26	55056.52	11:30:37	1.33
Instance3164.27	55080.52	11:50:47	1.29
Instance3164.28	55056.52	11:32:28	1.33
Instance3164.29	55078.52	11:26:08	1.34
Instance3164.30	55052.52	11:07:43	1.37
Instance3164.31	55066.52	10:22:22	1.47
Instance3164.32	55070.52	11:22:24	1.34
Instance3164.33	55056.52	12:23:37	1.23
Instance3164.34	55050.52	12:19:50	1.24
Instance3164.35	55074.52	12:23:39	1.23
Instance3164.36	55062.52	12:21:26	1.24
Instance3164.37	55066.52	12:05:52	1.26
Instance3164.38	55070.52	12:05:36	1.26
Instance3164.39	55054.52	12:05:03	1.27
Instance3164.40	55056.52	12:04:01	1.27
Instance3164.41	55064.52	11:55:58	1.28
Instance3164.42	55072.52	11:38:22	1.31
Instance3164.43	55056.52	12:00:28	1.27
Instance3164.44	55086.52	12:02:04	1.27
Instance3164.45	55070.52	11:36:49	1.32
Instance3164.46	55076.52	11:24:00	1.34
Instance3164.47	55092.52	11:34:57	1.32
Instance3164.48	55074.52	11:37:10	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
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Database (C:\asgluns\sg1)	0.314	0.000	9.670	0.000	(n/a)
Database (C:\asgluns\sg2)	0.268	0.000	9.837	0.001	(n/a)
Database (C:\asgluns\sg3)	0.268	0.000	9.839	0.001	(n/a)
Database (C:\asgluns\sg4)	0.278	0.000	9.835	0.001	(n/a)
Database (C:\asgluns\sg5)	0.258	0.000	9.834	0.001	(n/a)
Database (C:\asgluns\sg6)	0.241	0.000	9.841	0.001	(n/a)
Database (C:\asgluns\sg7)	0.252	0.000	9.834	0.001	(n/a)
Database (C:\asgluns\sg8)	0.257	0.000	9.835	0.001	(n/a)
Database (C:\asgluns\sg9)	0.324	0.000	9.834	0.001	(n/a)
Database (C:\asgluns\sg10)	0.331	0.000	9.836	0.001	(n/a)
Database (C:\asgluns\sg11)	0.329	0.000	9.838	0.001	(n/a)
Database (C:\asgluns\sg12)	0.321	0.000	9.836	0.001	(n/a)
Database (C:\asgluns\sg13)	0.298	0.000	9.836	0.001	(n/a)
Database (C:\asgluns\sg14)	0.300	0.000	9.831	0.001	(n/a)
Database (C:\asgluns\sg15)	0.309	0.000	9.836	0.001	(n/a)
Database (C:\asgluns\sg16)	0.299	0.000	9.834	0.001	(n/a)
Database (C:\asgluns\sg17)	0.265	0.000	9.838	0.001	(n/a)
Database (C:\asgluns\sg18)	0.276	0.000	9.835	0.001	(n/a)
Database (C:\asgluns\sg19)	0.283	0.000	9.835	0.001	(n/a)
Database (C:\asgluns\sg20)	0.247	0.000	9.838	0.001	(n/a)
Database (C:\asgluns\sg21)	0.243	0.000	9.824	0.001	(n/a)
Database (C:\asgluns\sg22)	0.226	0.000	9.828	0.001	(n/a)
Database (C:\asgluns\sg23)	0.239	0.000	9.826	0.001	(n/a)
Database	0.245	0.000	9.821	0.001	(n/a)

(C:\asgluns\sg24)					
Database (C:\asgluns\sg25)	0.316	0.000	9.840	0.001	(n/a)
Database (C:\asgluns\sg26)	0.313	0.000	9.836	0.001	(n/a)
Database (C:\asgluns\sg27)	0.322	0.000	9.840	0.001	(n/a)
Database (C:\asgluns\sg28)	0.310	0.000	9.836	0.001	(n/a)
Database (C:\asgluns\sg29)	0.299	0.000	9.835	0.001	(n/a)
Database (C:\asgluns\sg30)	0.287	0.000	9.831	0.001	(n/a)
Database (C:\asgluns\sg31)	0.253	0.000	9.833	0.001	(n/a)
Database (C:\asgluns\sg32)	0.295	0.000	9.834	0.001	(n/a)
Database (C:\asgluns\sg33)	0.281	0.000	9.836	0.001	(n/a)
Database (C:\asgluns\sg34)	0.274	0.000	9.834	0.001	(n/a)
Database (C:\asgluns\sg35)	0.284	0.000	9.839	0.001	(n/a)
Database (C:\asgluns\sg36)	0.280	0.000	9.837	0.001	(n/a)
Database (C:\asgluns\sg37)	0.258	0.000	9.836	0.001	(n/a)
Database (C:\asgluns\sg38)	0.252	0.000	9.837	0.001	(n/a)
Database (C:\asgluns\sg39)	0.251	0.000	9.834	0.001	(n/a)
Database (C:\asgluns\sg40)	0.253	0.000	9.834	0.001	(n/a)
Database (C:\asgluns\sg41)	0.321	0.000	9.837	0.001	(n/a)
Database (C:\asgluns\sg42)	0.307	0.000	9.838	0.001	(n/a)
Database (C:\asgluns\sg43)	0.327	0.000	9.835	0.001	(n/a)
Database (C:\asgluns\sg44)	0.338	0.000	9.841	0.001	(n/a)
Database (C:\asgluns\sg45)	0.305	0.000	9.837	0.001	(n/a)
Database (C:\asgluns\sg46)	0.294	0.000	9.838	0.001	(n/a)
Database (C:\asgluns\sg47)	0.295	0.000	9.841	0.001	(n/a)

Database (C:\asgluns\sg48)	0.297	0.000	9.838	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	7.455
Log (C:\alogluns\log3)	0.000	0.000	0.000	0.001	7.455
Log (C:\alogluns\log4)	0.000	0.000	0.000	0.001	6.725
Log (C:\alogluns\log5)	0.000	0.000	0.000	0.001	7.054
Log (C:\alogluns\log6)	0.000	0.000	0.000	0.001	7.054
Log (C:\alogluns\log7)	0.000	0.000	0.000	0.001	4.881
Log (C:\alogluns\log8)	0.000	0.000	0.000	0.001	4.772
Log (C:\alogluns\log9)	0.000	0.000	0.000	0.001	7.556
Log (C:\alogluns\log10)	0.000	0.000	0.000	0.001	7.415
Log (C:\alogluns\log11)	0.000	0.000	0.000	0.001	7.584
Log (C:\alogluns\log12)	0.000	0.000	0.000	0.001	7.321
Log (C:\alogluns\log13)	0.000	0.000	0.000	0.001	10.019
Log (C:\alogluns\log14)	0.000	0.000	0.000	0.001	4.881
Log (C:\alogluns\log15)	0.000	0.000	0.000	0.001	7.492
Log (C:\alogluns\log16)	0.000	0.000	0.000	0.001	7.266
Log (C:\alogluns\log17)	0.000	0.000	0.000	0.001	7.415
Log (C:\alogluns\log18)	0.000	0.000	0.000	0.001	4.803
Log (C:\alogluns\log19)	0.000	0.000	0.000	0.001	4.803
Log (C:\alogluns\log20)	0.000	0.000	0.000	0.001	7.455
Log (C:\alogluns\log21)	0.000	0.000	0.000	0.001	4.803
Log (C:\alogluns\log22)	0.000	0.000	0.000	0.001	7.586
Log (C:\alogluns\log23)	0.000	0.000	0.000	0.001	4.831
Log (C:\alogluns\log24)	0.000	0.000	0.000	0.001	9.989
Log (C:\alogluns\log25)	0.000	0.000	0.000	0.001	9.478
Log (C:\alogluns\log26)	0.000	0.000	0.000	0.001	10.208
Log (C:\alogluns\log27)	0.000	0.000	0.000	0.001	6.853
Log (C:\alogluns\log28)	0.000	0.000	0.000	0.001	10.208
Log (C:\alogluns\log29)	0.000	0.000	0.000	0.001	7.598
Log (C:\alogluns\log30)	0.000	0.000	0.000	0.001	7.236
Log (C:\alogluns\log31)	0.000	0.000	0.000	0.001	7.321
Log (C:\alogluns\log32)	0.000	0.000	0.000	0.001	10.244
Log (C:\alogluns\log33)	0.000	0.000	0.000	0.001	4.803
Log (C:\alogluns\log34)	0.000	0.000	0.000	0.001	9.989
Log (C:\alogluns\log35)	0.000	0.000	0.000	0.001	4.772
Log (C:\alogluns\log36)	0.000	0.000	0.000	0.001	7.645

Log (C:\alogluns\log37)	0.000	0.000	0.000	0.001	6.853
Log (C:\alogluns\log38)	0.000	0.000	0.000	0.001	7.492
Log (C:\alogluns\log39)	0.000	0.000	0.000	0.001	7.455
Log (C:\alogluns\log40)	0.000	0.000	0.000	0.001	7.492
Log (C:\alogluns\log41)	0.000	0.000	0.000	0.001	4.892
Log (C:\alogluns\log42)	0.000	0.000	0.000	0.001	4.803
Log (C:\alogluns\log43)	0.000	0.000	0.000	0.001	4.892
Log (C:\alogluns\log44)	0.000	0.000	0.000	0.001	4.739
Log (C:\alogluns\log45)	0.000	0.000	0.000	0.001	4.892
Log (C:\alogluns\log46)	0.000	0.000	0.000	0.001	7.492
Log (C:\alogluns\log47)	0.000	0.000	0.000	0.001	7.492
Log (C:\alogluns\log48)	0.000	0.000	0.000	0.001	7.428

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	0.410	0.146	0.956
Available MBytes	30522.794	30414.000	30619.000
Free System Page Table Entries	33564122.036	33563729.000	33564488.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	133439474.246	133435392.000	133451776.000
Pool Paged Bytes	212891803.422	212275200.000	213196800.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

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11/18/2009 1:33:38 AM -- Jetstress testing begins ...
11/18/2009 1:33:38 AM -- Prepare testing begins ...
11/18/2009 1:34:27 AM -- Attaching databases ...
11/18/2009 1:34:27 AM -- Prepare testing ends.
11/18/2009 1:35:21 AM -- Performance logging begins (interval: 30000 ms).
11/18/2009 1:35:21 AM -- Streaming backup databases ...
11/18/2009 2:01:54 PM -- Performance logging ends.
11/18/2009 2:01:54 PM -- Instance3164.1 (100% processed), Instance3164.2 (100%
processed), Instance3164.3 (100% processed), Instance3164.4 (100% processed),
Instance3164.5 (100% processed), Instance3164.6 (100% processed), Instance3164.7
(100% processed), Instance3164.8 (100% processed), Instance3164.9 (100% processed),
Instance3164.10 (100% processed), Instance3164.11 (100% processed), Instance3164.12
(100% processed), Instance3164.13 (100% processed), Instance3164.14 (100%
processed), Instance3164.15 (100% processed), Instance3164.16 (100% processed),
Instance3164.17 (100% processed), Instance3164.18 (100% processed), Instance3164.19
(100% processed), Instance3164.20 (100% processed), Instance3164.21 (100%
processed), Instance3164.22 (100% processed), Instance3164.23 (100% processed),
Instance3164.24 (100% processed), Instance3164.25 (100% processed), Instance3164.26
(100% processed), Instance3164.27 (100% processed), Instance3164.28 (100%
processed), Instance3164.29 (100% processed), Instance3164.30 (100% processed),
Instance3164.31 (100% processed), Instance3164.32 (100% processed), Instance3164.33
(100% processed), Instance3164.34 (100% processed), Instance3164.35 (100%
processed), Instance3164.36 (100% processed), Instance3164.37 (100% processed),
Instance3164.38 (100% processed), Instance3164.39 (100% processed), Instance3164.40
(100% processed), Instance3164.41 (100% processed), Instance3164.42 (100%

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processed), Instance3164.43 (100% processed), Instance3164.44 (100% processed), Instance3164.45 (100% processed), Instance3164.46 (100% processed), Instance3164.47 (100% processed), and Instance3164.48 (100% processed)
 11/18/2009 2:01:54 PM -- C:\ESRP HDP_2GB\Streaming Backup
 Test\StreamingBackup_2009_11_18_1_34_27.blg has 1489 samples.
 11/18/2009 2:01:54 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>
Instance6356.1	505	5076.2257397
Instance6356.2	506	5080.9993703
Instance6356.3	500	5061.3744445
Instance6356.4	518	5100.8894978
Instance6356.5	513	4999.3172467
Instance6356.6	501	4914.187501
Instance6356.7	507	4951.8461424
Instance6356.8	504	4961.3934036
Instance6356.9	510	5054.4792003
Instance6356.10	516	5071.9825125
Instance6356.11	512	5072.5129159
Instance6356.12	510	5044.136334
Instance6356.13	511	4974.1230852
Instance6356.14	509	4952.3765458
Instance6356.15	507	4951.0505373
Instance6356.16	523	5051.2967799
Instance6356.17	517	5088.9554213
Instance6356.18	504	5086.0382026
Instance6356.19	503	5072.5129159
Instance6356.20	502	5072.5129159
Instance6356.21	511	4963.5150172
Instance6356.22	507	4935.1384353
Instance6356.23	519	5051.0315782
Instance6356.24	514	5041.2191153
Instance6356.25	516	5071.7173108
Instance6356.26	520	5072.5129159
Instance6356.27	501	4962.7194121
Instance6356.28	514	5071.9825125
Instance6356.29	514	4960.3325968
Instance6356.30	513	4962.7194121
Instance6356.31	509	4962.7194121

Instance6356.32	519	5042.2799221
Instance6356.33	509	5091.3422366
Instance6356.34	510	5088.1598162
Instance6356.35	503	5077.0213448
Instance6356.36	512	5089.220623
Instance6356.37	509	4973.0622784
Instance6356.38	509	4962.9846138
Instance6356.39	505	4934.6080319
Instance6356.40	510	4942.8292846
Instance6356.41	507	5060.5788394
Instance6356.42	516	5066.6784785
Instance6356.43	511	5067.2088819
Instance6356.44	514	5067.2088819
Instance6356.45	501	4922.143552
Instance6356.46	515	5001.1736586
Instance6356.47	520	5043.8711323
Instance6356.48	518	5041.7495187

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)	0.176	0.048	49.981	1.335	(n/a)
Database (C:\asgluns\sg2)	0.173	0.042	50.188	1.329	(n/a)
Database (C:\asgluns\sg3)	0.167	0.038	49.716	1.328	(n/a)
Database (C:\asgluns\sg4)	0.163	0.037	49.784	1.344	(n/a)
Database (C:\asgluns\sg5)	0.135	0.036	50.694	1.343	(n/a)
Database (C:\asgluns\sg6)	0.148	0.031	49.516	1.312	(n/a)
Database (C:\asgluns\sg7)	0.139	0.031	50.047	1.323	(n/a)
Database (C:\asgluns\sg8)	0.139	0.030	49.631	1.322	(n/a)
Database (C:\asgluns\sg9)	0.158	0.040	50.214	1.344	(n/a)
Database (C:\asgluns\sg10)	0.173	0.035	51.166	1.347	(n/a)
Database	0.157	0.033	50.324	1.343	(n/a)

(C:\asgluns\sg11)					
Database (C:\asgluns\sg12)	0.157	0.030	49.928	1.339	(n/a)
Database (C:\asgluns\sg13)	0.128	0.034	50.355	1.334	(n/a)
Database (C:\asgluns\sg14)	0.135	0.029	49.673	1.329	(n/a)
Database (C:\asgluns\sg15)	0.134	0.027	49.832	1.326	(n/a)
Database (C:\asgluns\sg16)	0.139	0.028	50.535	1.362	(n/a)
Database (C:\asgluns\sg17)	0.159	0.046	50.255	1.350	(n/a)
Database (C:\asgluns\sg18)	0.175	0.038	49.919	1.327	(n/a)
Database (C:\asgluns\sg19)	0.182	0.039	49.836	1.323	(n/a)
Database (C:\asgluns\sg20)	0.158	0.036	50.186	1.327	(n/a)
Database (C:\asgluns\sg21)	0.133	0.034	49.811	1.335	(n/a)
Database (C:\asgluns\sg22)	0.148	0.029	49.837	1.323	(n/a)
Database (C:\asgluns\sg23)	0.140	0.030	50.333	1.352	(n/a)
Database (C:\asgluns\sg24)	0.137	0.030	51.007	1.340	(n/a)
Database (C:\asgluns\sg25)	0.143	0.040	50.360	1.353	(n/a)
Database (C:\asgluns\sg26)	0.169	0.033	50.499	1.355	(n/a)
Database (C:\asgluns\sg27)	0.154	0.029	49.857	1.317	(n/a)
Database (C:\asgluns\sg28)	0.152	0.031	50.430	1.345	(n/a)
Database (C:\asgluns\sg29)	0.143	0.045	50.374	1.340	(n/a)
Database (C:\asgluns\sg30)	0.146	0.039	50.241	1.338	(n/a)
Database (C:\asgluns\sg31)	0.132	0.040	50.437	1.328	(n/a)
Database (C:\asgluns\sg32)	0.135	0.026	50.776	1.351	(n/a)
Database (C:\asgluns\sg33)	0.163	0.043	50.369	1.333	(n/a)
Database (C:\asgluns\sg34)	0.177	0.039	50.614	1.336	(n/a)

Database (C:\asgluns\sg35)	0.183	0.037	50.232	1.320	(n/a)
Database (C:\asgluns\sg36)	0.181	0.038	50.602	1.342	(n/a)
Database (C:\asgluns\sg37)	0.136	0.032	49.773	1.326	(n/a)
Database (C:\asgluns\sg38)	0.144	0.028	50.106	1.329	(n/a)
Database (C:\asgluns\sg39)	0.131	0.030	50.377	1.318	(n/a)
Database (C:\asgluns\sg40)	0.142	0.028	50.578	1.331	(n/a)
Database (C:\asgluns\sg41)	0.157	0.035	50.391	1.334	(n/a)
Database (C:\asgluns\sg42)	0.155	0.032	50.398	1.350	(n/a)
Database (C:\asgluns\sg43)	0.162	0.029	49.982	1.339	(n/a)
Database (C:\asgluns\sg44)	0.161	0.031	50.543	1.346	(n/a)
Database (C:\asgluns\sg45)	0.131	0.031	50.010	1.312	(n/a)
Database (C:\asgluns\sg46)	0.129	0.027	50.274	1.337	(n/a)
Database (C:\asgluns\sg47)	0.138	0.027	51.089	1.356	(n/a)
Database (C:\asgluns\sg48)	0.123	0.026	50.115	1.352	(n/a)
Log (C:\alogluns\log1)	0.038	0.000	3.272	0.009	31.199
Log (C:\alogluns\log2)	0.038	0.000	3.278	0.008	26.928
Log (C:\alogluns\log3)	0.040	0.000	3.239	0.009	37.664
Log (C:\alogluns\log4)	0.038	0.000	3.338	0.002	13.139
Log (C:\alogluns\log5)	0.030	0.000	3.323	0.010	43.180
Log (C:\alogluns\log6)	0.033	0.000	3.245	0.010	38.585
Log (C:\alogluns\log7)	0.031	0.000	3.284	0.010	41.247
Log (C:\alogluns\log8)	0.033	0.000	3.265	0.008	28.720
Log (C:\alogluns\log9)	0.036	0.000	3.304	0.009	30.691
Log (C:\alogluns\log10)	0.035	0.000	3.343	0.008	32.009
Log (C:\alogluns\log11)	0.036	0.000	3.317	0.008	31.174
Log (C:\alogluns\log12)	0.035	0.000	3.304	0.009	35.858
Log (C:\alogluns\log13)	0.033	0.000	3.310	0.009	33.908
Log (C:\alogluns\log14)	0.029	0.000	3.297	0.009	36.285
Log (C:\alogluns\log15)	0.032	0.000	3.284	0.009	35.454

Log (C:\alogluns\log16)	0.032	0.000	3.388	0.008	30.828
Log (C:\alogluns\log17)	0.041	0.000	3.347	0.006	19.480
Log (C:\alogluns\log18)	0.038	0.000	3.265	0.008	24.567
Log (C:\alogluns\log19)	0.038	0.000	3.258	0.008	30.178
Log (C:\alogluns\log20)	0.037	0.000	3.252	0.008	33.818
Log (C:\alogluns\log21)	0.033	0.000	3.310	0.009	31.923
Log (C:\alogluns\log22)	0.032	0.000	3.284	0.009	38.561
Log (C:\alogluns\log23)	0.033	0.000	3.362	0.008	30.766
Log (C:\alogluns\log24)	0.032	0.000	3.329	0.010	57.311
Log (C:\alogluns\log25)	0.036	0.000	3.343	0.008	29.015
Log (C:\alogluns\log26)	0.034	0.000	3.369	0.008	32.108
Log (C:\alogluns\log27)	0.033	0.000	3.245	0.008	29.405
Log (C:\alogluns\log28)	0.034	0.000	3.330	0.007	25.538
Log (C:\alogluns\log29)	0.030	0.000	3.329	0.008	34.421
Log (C:\alogluns\log30)	0.033	0.000	3.323	0.008	23.095
Log (C:\alogluns\log31)	0.034	0.000	3.297	0.008	26.431
Log (C:\alogluns\log32)	0.032	0.000	3.362	0.010	54.300
Log (C:\alogluns\log33)	0.039	0.000	3.298	0.006	15.684
Log (C:\alogluns\log34)	0.039	0.000	3.304	0.007	25.538
Log (C:\alogluns\log35)	0.037	0.000	3.258	0.008	32.060
Log (C:\alogluns\log36)	0.036	0.000	3.317	0.007	24.278
Log (C:\alogluns\log37)	0.033	0.000	3.297	0.008	26.524
Log (C:\alogluns\log38)	0.034	0.000	3.297	0.008	28.844
Log (C:\alogluns\log39)	0.032	0.000	3.271	0.010	39.868
Log (C:\alogluns\log40)	0.030	0.000	3.304	0.010	45.039
Log (C:\alogluns\log41)	0.036	0.000	3.284	0.008	30.687
Log (C:\alogluns\log42)	0.034	0.000	3.343	0.008	24.485
Log (C:\alogluns\log43)	0.034	0.000	3.310	0.007	27.051
Log (C:\alogluns\log44)	0.036	0.000	3.330	0.007	27.051
Log (C:\alogluns\log45)	0.033	0.000	3.245	0.009	38.000
Log (C:\alogluns\log46)	0.033	0.000	3.336	0.009	39.570
Log (C:\alogluns\log47)	0.032	0.000	3.369	0.009	38.766
Log (C:\alogluns\log48)	0.033	0.000	3.355	0.009	44.138

Host System Performance

<i>Counter</i>	<i>Average</i>	<i>Minimum</i>	<i>Maximum</i>
% Processor Time	1.296	0.000	10.841
Available MBytes	19318.699	17639.000	30296.000

Free System Page Table Entries	33564067.893	33563731.000	33564574.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	134599725.949	133246976.000	136097792.000
Pool Paged Bytes	217822414.769	217198592.000	218116096.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

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11/18/2009 8:08:52 PM -- Jetstress testing begins ...
11/18/2009 8:08:52 PM -- Prepare testing begins ...
11/18/2009 8:09:41 PM -- Attaching databases ...
11/18/2009 8:09:41 PM -- Prepare testing ends.
11/18/2009 8:09:41 PM -- Dispatching transactions begins ...
11/18/2009 8:09:41 PM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0
GB)
11/18/2009 8:09:41 PM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8
MB)
11/18/2009 8:10:33 PM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.05 seconds/read).
11/18/2009 8:10:33 PM -- Log write latency thresholds: (average: 0.01
seconds/write, maximum: 0.05 seconds/write).
11/18/2009 8:10:38 PM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
11/18/2009 8:10:38 PM -- Performance logging begins (interval: 15000 ms).
11/18/2009 8:10:38 PM -- Generating log files ...
11/19/2009 5:31:37 AM -- C:\alogluns\log1 (101.2% generated), C:\alogluns\log2
(101.4% generated), C:\alogluns\log3 (100.2% generated), C:\alogluns\log4 (103.8%
generated), C:\alogluns\log5 (102.8% generated), C:\alogluns\log6 (100.4%
generated), C:\alogluns\log7 (101.6% generated), C:\alogluns\log8 (101.0%
generated), C:\alogluns\log9 (102.2% generated), C:\alogluns\log10 (103.4%
generated), C:\alogluns\log11 (102.6% generated), C:\alogluns\log12 (102.2%
generated), C:\alogluns\log13 (102.4% generated), C:\alogluns\log14 (102.0%
generated), C:\alogluns\log15 (101.6% generated), C:\alogluns\log16 (104.8%
generated), C:\alogluns\log17 (103.6% generated), C:\alogluns\log18 (101.0%
generated), C:\alogluns\log19 (100.8% generated), C:\alogluns\log20 (100.6%
generated), C:\alogluns\log21 (102.4% generated), C:\alogluns\log22 (101.6%
generated), C:\alogluns\log23 (104.0% generated), C:\alogluns\log24 (103.0%
generated), C:\alogluns\log25 (103.4% generated), C:\alogluns\log26 (104.2%
generated), C:\alogluns\log27 (100.4% generated), C:\alogluns\log28 (103.0%
generated), C:\alogluns\log29 (103.0% generated), C:\alogluns\log30 (102.8%
generated), C:\alogluns\log31 (102.0% generated), C:\alogluns\log32 (104.0%
generated), C:\alogluns\log33 (102.0% generated), C:\alogluns\log34 (102.2%
generated), C:\alogluns\log35 (100.8% generated), C:\alogluns\log36 (102.6%
generated), C:\alogluns\log37 (102.0% generated), C:\alogluns\log38 (102.0%
generated), C:\alogluns\log39 (101.2% generated), C:\alogluns\log40 (102.2%
generated), C:\alogluns\log41 (101.6% generated), C:\alogluns\log42 (103.4%
generated), C:\alogluns\log43 (102.4% generated), C:\alogluns\log44 (103.0%
generated), C:\alogluns\log45 (100.4% generated), C:\alogluns\log46 (103.2%
generated), C:\alogluns\log47 (104.2% generated), and C:\alogluns\log48 (103.8%
generated)
11/19/2009 5:31:37 AM -- Performance logging ends.
11/19/2009 5:31:37 AM -- JetInterop batch transaction stats: 13418, 13368, 13220,
13364, 13398, 13268, 13372, 13351, 13281, 13561, 13398, 13391, 13409, 13359, 13271,
13509, 13491, 13329, 13434, 13424, 13172, 13269, 13500, 13582, 13430, 13601, 13208,
13394, 13415, 13455, 13556, 13547, 13314, 13437, 13376, 13540, 13387, 13453, 13364,
13544, 13443, 13482, 13365, 13415, 13277, 13417, 13440, and 13344.
11/19/2009 5:31:37 AM -- Dispatching transactions ends.
11/19/2009 5:31:37 AM -- Shutting down databases ...
11/19/2009 5:31:44 AM -- Instance6356.1 (complete), Instance6356.2 (complete),
Instance6356.3 (complete), Instance6356.4 (complete), Instance6356.5 (complete),
Instance6356.6 (complete), Instance6356.7 (complete), Instance6356.8 (complete),
Instance6356.9 (complete), Instance6356.10 (complete), Instance6356.11 (complete),
Instance6356.12 (complete), Instance6356.13 (complete), Instance6356.14 (complete),

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11/19/2009 5:33:21 AM -- Volume C:\alogluns\log38 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:21 AM -- volume C:\alogluns\log39 has 0.0019 for Avg. Disk sec/Write.
11/19/2009 5:33:21 AM -- Volume C:\alogluns\log39 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:21 AM -- Volume C:\alogluns\log40 has 0.0019 for Avg. Disk sec/Write.
11/19/2009 5:33:21 AM -- volume C:\alogluns\log40 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:21 AM -- Volume C:\alogluns\log41 has 0.0018 for Avg. Disk sec/Write.
11/19/2009 5:33:21 AM -- Volume C:\alogluns\log41 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:21 AM -- volume C:\alogluns\log42 has 0.0018 for Avg. Disk sec/Write.
11/19/2009 5:33:21 AM -- Volume C:\alogluns\log42 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:21 AM -- Volume C:\alogluns\log43 has 0.0018 for Avg. Disk sec/Write.
11/19/2009 5:33:21 AM -- volume C:\alogluns\log43 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:21 AM -- Volume C:\alogluns\log44 has 0.0018 for Avg. Disk sec/Write.
11/19/2009 5:33:21 AM -- Volume C:\alogluns\log44 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:21 AM -- volume C:\alogluns\log45 has 0.0020 for Avg. Disk sec/Write.
11/19/2009 5:33:22 AM -- Volume C:\alogluns\log45 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:22 AM -- Volume C:\alogluns\log46 has 0.0019 for Avg. Disk sec/Write.
11/19/2009 5:33:22 AM -- volume C:\alogluns\log46 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:22 AM -- Volume C:\alogluns\log47 has 0.0020 for Avg. Disk sec/Write.
11/19/2009 5:33:22 AM -- Volume C:\alogluns\log47 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:22 AM -- volume C:\alogluns\log48 has 0.0020 for Avg. Disk sec/Write.
11/19/2009 5:33:22 AM -- Volume C:\alogluns\log48 has 0.0000 for Avg. Disk sec/Read.
11/19/2009 5:33:22 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
11/19/2009 5:33:22 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.
11/19/2009 5:33:22 AM -- C:\ESRP HDP_2GB\Soft Recovery Test\Performance_2009_11_18_20_10_33.xml has 2233 samples queried.
11/19/2009 5:33:22 AM -- C:\ESRP HDP_2GB\Soft Recovery Test\Performance_2009_11_18_20_10_33.html is saved.
11/19/2009 7:32:21 AM -- Performance logging begins (interval: 4000 ms).
11/19/2009 7:32:21 AM -- Recovering databases ...
11/19/2009 8:57:22 AM -- Performance logging ends.
11/19/2009 8:57:22 AM -- Instance6356.1 (5076.2257397), Instance6356.2 (5080.9993703), Instance6356.3 (5061.3744445), Instance6356.4 (5100.8894978), Instance6356.5 (4999.3172467), Instance6356.6 (4914.187501), Instance6356.7 (4951.8461424), Instance6356.8 (4961.3934036), Instance6356.9 (5054.4792003), Instance6356.10 (5071.9825125), Instance6356.11 (5072.5129159), Instance6356.12 (5044.136334), Instance6356.13 (4974.1230852), Instance6356.14 (4952.3765458), Instance6356.15 (4951.0505373), Instance6356.16 (5051.2967799), Instance6356.17 (5088.9554213), Instance6356.18 (5086.0382026), Instance6356.19 (5072.5129159), Instance6356.20 (5072.5129159), Instance6356.21 (4963.5150172), Instance6356.22 (4935.1384353), Instance6356.23 (5051.0315782), Instance6356.24 (5041.2191153), Instance6356.25 (5071.7173108), Instance6356.26 (5072.5129159), Instance6356.27 (4962.7194121), Instance6356.28 (5071.9825125), Instance6356.29 (4960.3325968), Instance6356.30 (4962.7194121), Instance6356.31 (4962.7194121), Instance6356.32 (5042.2799221), Instance6356.33 (5091.3422366), Instance6356.34 (5088.1598162), Instance6356.35 (5077.0213448), Instance6356.36 (5089.220623), Instance6356.37 (4973.0622784), Instance6356.38 (4962.9846138), Instance6356.39 (4934.6080319),

Instance6356.40 (4942.8292846), Instance6356.41 (5060.5788394), Instance6356.42 (5066.6784785), Instance6356.43 (5067.2088819), Instance6356.44 (5067.2088819), Instance6356.45 (4922.143552), Instance6356.46 (5001.1736586), Instance6356.47 (5043.8711323), and Instance6356.48 (5041.7495187)
 11/19/2009 8:57:23 AM -- C:\ESRP HDP_2GB\Soft Recovery Test\SoftRecovery_2009_11_19_7_31_59.blg has 1248 samples.
 11/19/2009 8:57:23 AM -- Creating test report ...

Soft Recovery Test Performance Result: SUN141

Test Summary

Overall Test Result	Pass
Machine Name	SUN141
Test Description	
Test Start Time	11/18/2009 8:08:52 PM
Test End Time	11/19/2009 5:31:44 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_2GB\Soft Recovery Test\Performance_2009_11_18_20_10_33.blg

Database Sizing and Throughput

Achieved I/O per Second	1089.408
Capacity Percentage	100%
Throughput Percentage	100%
Initial database size	2771554926592
Final database size	2788804001792
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	12.618	9.969	(n/a)
Database (C:\asgluns\sg2)	0.009	0.004	12.700	10.086	(n/a)
Database (C:\asgluns\sg3)	0.009	0.004	12.497	9.860	(n/a)
Database (C:\asgluns\sg4)	0.009	0.004	12.501	10.043	(n/a)
Database (C:\asgluns\sg5)	0.009	0.004	12.695	10.175	(n/a)
Database (C:\asgluns\sg6)	0.009	0.004	12.467	9.883	(n/a)
Database (C:\asgluns\sg7)	0.009	0.004	12.618	9.987	(n/a)
Database (C:\asgluns\sg8)	0.009	0.004	12.475	9.934	(n/a)
Database (C:\asgluns\sg9)	0.009	0.004	12.593	10.077	(n/a)
Database (C:\asgluns\sg10)	0.009	0.004	12.806	10.262	(n/a)
Database (C:\asgluns\sg11)	0.009	0.004	12.648	10.052	(n/a)
Database (C:\asgluns\sg12)	0.009	0.003	12.645	10.011	(n/a)
Database (C:\asgluns\sg13)	0.009	0.004	12.662	10.057	(n/a)
Database (C:\asgluns\sg14)	0.009	0.004	12.504	9.962	(n/a)
Database (C:\asgluns\sg15)	0.009	0.004	12.442	9.888	(n/a)
Database (C:\asgluns\sg16)	0.009	0.004	12.633	10.134	(n/a)
Database (C:\asgluns\sg17)	0.009	0.004	12.609	10.066	(n/a)
Database (C:\asgluns\sg18)	0.009	0.004	12.629	10.038	(n/a)
Database (C:\asgluns\sg19)	0.009	0.004	12.692	9.953	(n/a)
Database (C:\asgluns\sg20)	0.009	0.004	12.781	10.019	(n/a)
Database (C:\asgluns\sg21)	0.009	0.004	12.358	9.946	(n/a)
Database (C:\asgluns\sg22)	0.009	0.004	12.494	9.960	(n/a)
Database (C:\asgluns\sg23)	0.009	0.004	12.637	10.141	(n/a)

Database (C:\asgluns\sg24)	0.009	0.004	12.892	10.285	(n/a)
Database (C:\asgluns\sg25)	0.009	0.003	12.628	10.110	(n/a)
Database (C:\asgluns\sg26)	0.009	0.004	12.640	10.100	(n/a)
Database (C:\asgluns\sg27)	0.009	0.003	12.516	9.947	(n/a)
Database (C:\asgluns\sg28)	0.009	0.004	12.649	10.089	(n/a)
Database (C:\asgluns\sg29)	0.009	0.004	12.705	10.107	(n/a)
Database (C:\asgluns\sg30)	0.009	0.004	12.646	10.113	(n/a)
Database (C:\asgluns\sg31)	0.009	0.004	12.784	10.079	(n/a)
Database (C:\asgluns\sg32)	0.009	0.004	12.744	10.173	(n/a)
Database (C:\asgluns\sg33)	0.009	0.004	12.661	10.061	(n/a)
Database (C:\asgluns\sg34)	0.009	0.004	12.703	10.154	(n/a)
Database (C:\asgluns\sg35)	0.009	0.004	12.697	10.041	(n/a)
Database (C:\asgluns\sg36)	0.009	0.004	12.712	10.143	(n/a)
Database (C:\asgluns\sg37)	0.009	0.004	12.541	10.004	(n/a)
Database (C:\asgluns\sg38)	0.009	0.004	12.627	10.034	(n/a)
Database (C:\asgluns\sg39)	0.009	0.004	12.693	10.129	(n/a)
Database (C:\asgluns\sg40)	0.009	0.004	12.765	10.157	(n/a)
Database (C:\asgluns\sg41)	0.009	0.003	12.774	10.083	(n/a)
Database (C:\asgluns\sg42)	0.009	0.004	12.698	10.109	(n/a)
Database (C:\asgluns\sg43)	0.009	0.004	12.624	10.003	(n/a)
Database (C:\asgluns\sg44)	0.009	0.004	12.717	10.121	(n/a)
Database (C:\asgluns\sg45)	0.009	0.004	12.592	10.017	(n/a)
Database (C:\asgluns\sg46)	0.009	0.004	12.562	10.050	(n/a)
Database	0.009	0.004	12.678	10.248	(n/a)

(C:\asgluns\sg47)					
Database (C:\asgluns\sg48)	0.009	0.004	12.538	10.058	(n/a)
Log (C:\alogluns\log1)	0.000	0.002	0.000	8.168	3983.655
Log (C:\alogluns\log2)	0.000	0.002	0.000	8.192	3986.464
Log (C:\alogluns\log3)	0.000	0.002	0.000	8.087	3949.042
Log (C:\alogluns\log4)	0.000	0.002	0.000	8.296	4001.194
Log (C:\alogluns\log5)	0.000	0.002	0.000	8.339	4015.091
Log (C:\alogluns\log6)	0.000	0.002	0.000	8.070	3939.351
Log (C:\alogluns\log7)	0.000	0.002	0.000	8.188	4042.595
Log (C:\alogluns\log8)	0.000	0.002	0.000	8.152	3968.080
Log (C:\alogluns\log9)	0.000	0.002	0.000	8.239	3971.980
Log (C:\alogluns\log10)	0.000	0.002	0.000	8.360	4036.850
Log (C:\alogluns\log11)	0.000	0.002	0.000	8.252	4039.643
Log (C:\alogluns\log12)	0.000	0.002	0.000	8.188	4025.111
Log (C:\alogluns\log13)	0.000	0.002	0.000	8.195	4026.743
Log (C:\alogluns\log14)	0.000	0.002	0.000	8.147	4006.353
Log (C:\alogluns\log15)	0.000	0.002	0.000	8.119	4003.480
Log (C:\alogluns\log16)	0.000	0.002	0.000	8.363	4064.130
Log (C:\alogluns\log17)	0.000	0.002	0.000	8.289	4029.749
Log (C:\alogluns\log18)	0.000	0.002	0.000	8.186	3971.146
Log (C:\alogluns\log19)	0.000	0.002	0.000	8.171	3987.560
Log (C:\alogluns\log20)	0.000	0.002	0.000	8.157	4002.193
Log (C:\alogluns\log21)	0.000	0.002	0.000	8.181	3998.227
Log (C:\alogluns\log22)	0.000	0.002	0.000	8.167	3965.483
Log (C:\alogluns\log23)	0.000	0.002	0.000	8.306	4092.333
Log (C:\alogluns\log24)	0.000	0.002	0.000	8.305	4019.880
Log (C:\alogluns\log25)	0.000	0.002	0.000	8.298	4035.256
Log (C:\alogluns\log26)	0.000	0.002	0.000	8.354	4067.573
Log (C:\alogluns\log27)	0.000	0.002	0.000	8.121	3938.019
Log (C:\alogluns\log28)	0.000	0.002	0.000	8.250	4017.009
Log (C:\alogluns\log29)	0.000	0.002	0.000	8.289	3998.358
Log (C:\alogluns\log30)	0.000	0.002	0.000	8.296	3972.703
Log (C:\alogluns\log31)	0.000	0.002	0.000	8.233	3979.150
Log (C:\alogluns\log32)	0.000	0.002	0.000	8.319	3988.540
Log (C:\alogluns\log33)	0.000	0.002	0.000	8.230	3949.770
Log (C:\alogluns\log34)	0.000	0.002	0.000	8.246	3953.567
Log (C:\alogluns\log35)	0.000	0.002	0.000	8.176	3990.018
Log (C:\alogluns\log36)	0.000	0.002	0.000	8.277	3987.705

Log (C:\alogluns\log37)	0.000	0.002	0.000	8.175	3984.076
Log (C:\alogluns\log38)	0.000	0.002	0.000	8.240	4059.652
Log (C:\alogluns\log39)	0.000	0.002	0.000	8.194	3957.388
Log (C:\alogluns\log40)	0.000	0.002	0.000	8.223	4055.608
Log (C:\alogluns\log41)	0.000	0.002	0.000	8.186	3985.971
Log (C:\alogluns\log42)	0.000	0.002	0.000	8.291	4011.047
Log (C:\alogluns\log43)	0.000	0.002	0.000	8.198	4071.603
Log (C:\alogluns\log44)	0.000	0.002	0.000	8.291	4027.521
Log (C:\alogluns\log45)	0.000	0.002	0.000	8.097	3967.702
Log (C:\alogluns\log46)	0.000	0.002	0.000	8.246	4023.925
Log (C:\alogluns\log47)	0.000	0.002	0.000	8.345	4078.064
Log (C:\alogluns\log48)	0.000	0.002	0.000	8.281	4020.555

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	1.422	0.337	6.548
Available MBytes	18827.371	17619.000	30301.000
Free System Page Table Entries	33564002.555	33563360.000	33566706.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	133304983.721	133304320.000	133328896.000
Pool Paged Bytes	214490265.096	213540864.000	216309760.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log

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11/18/2009 8:08:52 PM -- Jetstress testing begins ...
11/18/2009 8:08:52 PM -- Prepare testing begins ...
11/18/2009 8:09:41 PM -- Attaching databases ...
11/18/2009 8:09:41 PM -- Prepare testing ends.
11/18/2009 8:09:41 PM -- Dispatching transactions begins ...
11/18/2009 8:09:41 PM -- Database cache settings: (minimum: 1.5 GB, maximum: 12.0
GB)
11/18/2009 8:09:41 PM -- Database flush thresholds: (start: 122.9 MB, stop: 245.8
MB)
11/18/2009 8:10:33 PM -- Database read latency thresholds: (average: 0.02
seconds/read, maximum: 0.05 seconds/read).
11/18/2009 8:10:33 PM -- Log write latency thresholds: (average: 0.01
seconds/write, maximum: 0.05 seconds/write).
11/18/2009 8:10:38 PM -- Operation mix: Sessions 2, Inserts 40%, Deletes 30%,
Replaces 5%, Reads 25%, Lazy Commits 55%.
11/18/2009 8:10:38 PM -- Performance logging begins (interval: 15000 ms).
11/18/2009 8:10:38 PM -- Generating log files ...
11/19/2009 5:31:37 AM -- C:\alogluns\log1 (101.2% generated), C:\alogluns\log2
(101.4% generated), C:\alogluns\log3 (100.2% generated), C:\alogluns\log4 (103.8%
generated), C:\alogluns\log5 (102.8% generated), C:\alogluns\log6 (100.4%
generated), C:\alogluns\log7 (101.6% generated), C:\alogluns\log8 (101.0%
generated), C:\alogluns\log9 (102.2% generated), C:\alogluns\log10 (103.4%
generated), C:\alogluns\log11 (102.6% generated), C:\alogluns\log12 (102.2%
generated), C:\alogluns\log13 (102.4% generated), C:\alogluns\log14 (102.0%
generated), C:\alogluns\log15 (101.6% generated), C:\alogluns\log16 (104.8%

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generated), C:\alogluns\log17 (103.6% generated), C:\alogluns\log18 (101.0%
generated), C:\alogluns\log19 (100.8% generated), C:\alogluns\log20 (100.6%
generated), C:\alogluns\log21 (102.4% generated), C:\alogluns\log22 (101.6%
generated), C:\alogluns\log23 (104.0% generated), C:\alogluns\log24 (103.0%
generated), C:\alogluns\log25 (103.4% generated), C:\alogluns\log26 (104.2%
generated), C:\alogluns\log27 (100.4% generated), C:\alogluns\log28 (103.0%
generated), C:\alogluns\log29 (103.0% generated), C:\alogluns\log30 (102.8%
generated), C:\alogluns\log31 (102.0% generated), C:\alogluns\log32 (104.0%
generated), C:\alogluns\log33 (102.0% generated), C:\alogluns\log34 (102.2%
generated), C:\alogluns\log35 (100.8% generated), C:\alogluns\log36 (102.6%
generated), C:\alogluns\log37 (102.0% generated), C:\alogluns\log38 (102.0%
generated), C:\alogluns\log39 (101.2% generated), C:\alogluns\log40 (102.2%
generated), C:\alogluns\log41 (101.6% generated), C:\alogluns\log42 (103.4%
generated), C:\alogluns\log43 (102.4% generated), C:\alogluns\log44 (103.0%
generated), C:\alogluns\log45 (100.4% generated), C:\alogluns\log46 (103.2%
generated), C:\alogluns\log47 (104.2% generated), and C:\alogluns\log48 (103.8%
generated)
11/19/2009 5:31:37 AM -- Performance logging ends.
11/19/2009 5:31:37 AM -- JetInterop batch transaction stats: 13418, 13368, 13220,
13364, 13398, 13268, 13372, 13351, 13281, 13561, 13398, 13391, 13409, 13359, 13271,
13509, 13491, 13329, 13434, 13424, 13172, 13269, 13500, 13582, 13430, 13601, 13208,
13394, 13415, 13455, 13556, 13547, 13314, 13437, 13376, 13540, 13387, 13453, 13364,
13544, 13443, 13482, 13365, 13415, 13277, 13417, 13440, and 13344.
11/19/2009 5:31:37 AM -- Dispatching transactions ends.
11/19/2009 5:31:37 AM -- Shutting down databases ...
11/19/2009 5:31:44 AM -- Instance6356.1 (complete), Instance6356.2 (complete),
Instance6356.3 (complete), Instance6356.4 (complete), Instance6356.5 (complete),
Instance6356.6 (complete), Instance6356.7 (complete), Instance6356.8 (complete),
Instance6356.9 (complete), Instance6356.10 (complete), Instance6356.11 (complete),
Instance6356.12 (complete), Instance6356.13 (complete), Instance6356.14 (complete),
Instance6356.15 (complete), Instance6356.16 (complete), Instance6356.17 (complete),
Instance6356.18 (complete), Instance6356.19 (complete), Instance6356.20 (complete),
Instance6356.21 (complete), Instance6356.22 (complete), Instance6356.23 (complete),
Instance6356.24 (complete), Instance6356.25 (complete), Instance6356.26 (complete),
Instance6356.27 (complete), Instance6356.28 (complete), Instance6356.29 (complete),
Instance6356.30 (complete), Instance6356.31 (complete), Instance6356.32 (complete),
Instance6356.33 (complete), Instance6356.34 (complete), Instance6356.35 (complete),
Instance6356.36 (complete), Instance6356.37 (complete), Instance6356.38 (complete),
Instance6356.39 (complete), Instance6356.40 (complete), Instance6356.41 (complete),
Instance6356.42 (complete), Instance6356.43 (complete), Instance6356.44 (complete),
Instance6356.45 (complete), Instance6356.46 (complete), Instance6356.47 (complete),
and Instance6356.48 (complete)
11/19/2009 5:31:44 AM -- C:\ESRP HDP_2GB\Soft Recovery
Test\Performance_2009_11_18_20_10_33.blg has 2234 samples.
11/19/2009 5:31:44 AM -- Creating test report ...
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg1 has 0.0093 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg2 has 0.0093 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- volume C:\asgluns\sg3 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg4 has 0.0093 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg5 has 0.0093 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- volume C:\asgluns\sg6 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg7 has 0.0093 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg8 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- volume C:\asgluns\sg9 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg10 has 0.0091 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg11 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- volume C:\asgluns\sg12 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg13 has 0.0093 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg14 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- volume C:\asgluns\sg15 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:18 AM -- Volume C:\asgluns\sg16 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:19 AM -- Volume C:\asgluns\sg17 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:19 AM -- volume C:\asgluns\sg18 has 0.0093 for Avg. Disk sec/Read.
11/19/2009 5:33:19 AM -- Volume C:\asgluns\sg19 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:19 AM -- Volume C:\asgluns\sg20 has 0.0093 for Avg. Disk sec/Read.
11/19/2009 5:33:19 AM -- volume C:\asgluns\sg21 has 0.0091 for Avg. Disk sec/Read.
11/19/2009 5:33:19 AM -- Volume C:\asgluns\sg22 has 0.0092 for Avg. Disk sec/Read.
11/19/2009 5:33:19 AM -- Volume C:\asgluns\sg23 has 0.0092 for Avg. Disk sec/Read.

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11/19/2009 5:33:22 AM -- Volume C:\alogluns\log48 has 0.0020 for Avg. Disk
sec/Write.
11/19/2009 5:33:22 AM -- volume C:\alogluns\log48 has 0.0000 for Avg. Disk
sec/Read.
11/19/2009 5:33:22 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.
11/19/2009 5:33:22 AM -- Test has 0 Database Page Fault Stalls/sec samples higher
than 0.
11/19/2009 5:33:22 AM -- C:\ESRP HDP_2GB\Soft Recovery
Test\Performance_2009_11_18_20_10_33.xml has 2233 samples queried.



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