



# Oracle Unified Storage System 7410 24,000 Mailbox Exchange 2007 Storage Solution



## *Solution Guide*

**Tested with: ESRP – Storage Version 2.1**  
**Tested Date: March 18th, 2010**

# Content

Oracle Unified Storage System 7410 24,000 Mailbox Exchange 2007 Storage Solution .....	1
Content.....	2
Overview.....	3
Disclaimer .....	3
Features.....	3
Solution Description.....	5
Targeted Customer Profile .....	8
Tested Deployment.....	8
Simulated Exchange Configuration: .....	9
Primary Storage Hardware .....	9
Primary Storage Software .....	10
Primary Storage Disk Configuration (Mailbox Store Disks).....	10
Primary Storage Disk Configuration (Transactional Log Disks) .....	10
Best Practices .....	11
Core Storage.....	11
Contact for Additional Information .....	11
Test Result Summary.....	11
Reliability .....	12
Primary Storage Performance Results.....	12
Streaming Backup/Recovery Performance.....	13
Database Read-only Performance.....	14
Log Read-only Performance.....	14
Conclusion.....	14
Appendix .....	16
Performance Test Result Report - isv-4150a.....	16
Performance Test Result Report - isv-4150b.....	18
Performance Test Result Report - isv-4150c.....	22
Performance Test Result Report - isv-4150d.....	26
Stress Test Result Report - isv-4150a .....	29
Stress Test Result Report - isv-4150b .....	32
Stress Test Result Report - isv-4150c.....	35
Stress Test Result Report - isv-4150d .....	37
SoftRecovery Test Result Report - isv-4150a.....	40
SoftRecovery Test Result Report - isv-4150b.....	43
SoftRecovery Test Result Report - isv-4150c.....	45
SoftRecovery Test Result Report - isv-4150d.....	48
Streaming backup Test Result Report - isv-4150a .....	51
Streaming backup Test Result Report - isv-4150b.....	53
Streaming backup Test Result Report - isv-4150c .....	55
Streaming backup Test Result Report - isv-4150d.....	57

## Overview

This document provides information on Oracle's storage solution for Microsoft Exchange Server, based the *Microsoft Exchange Solution Reviewed Program (ESRP) – Storage* program\*. For any questions or comments regarding the contents of this document, see [Contact for Additional Information](#).

\*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 details on the *Microsoft ESRP – Storage* program, please click <http://www.microsoft.com/technet/prodtechnol/exchange/2007/esrp.mspx>

## Disclaimer

This document has been produced independently of Microsoft Corporation. Microsoft Corporation expressly disclaims responsibility for, and makes no warranty, express or implied, with respect to, the accuracy of the contents of this document.

The information contained in this document represents the current view of Oracle on the issues discussed as of the date of publication. Due to changing market conditions, it should not be interpreted to be a commitment on the part of Oracle, Oracle cannot guarantee the accuracy of any information presented after the date of publication.

## Features

### Simplifies Your Storage

#### ***Data management made easy***

- Radically simplifies storage management for less
  - Installs in minutes without training
  - Simple to configure and optimize
  - Easy-to-use graphical tools provide real-time visibility
  - Comprehensive self-healing
-

## **Flash Hybrid Storage Pool**

### ***Optimized storage pool***

The Sun Storage 7410 uses a virtual storage pool to seamlessly optimize access to the different media types, including SSDs, improving efficiencies and increasing application performance. In fact it's the only system with a hybrid storage pool, which delivers over twice the performance at half the cost of traditional storage solutions, enabling you to shatter I/O bottlenecks and increase productivity without breaking the bank.

### ***Hybrid architecture with SSDs Increases performance and energy efficiency***

The Sun Storage 7410's hybrid architecture combines Read- and Write-optimized SSD based Flash Accelerators with high-capacity disk drives to deliver higher performance and reduce power consumption and cooling requirements. This makes the Sun Storage 7410 ideal for organizations that require high throughput and lower response times for write- and read-intensive application workloads. In addition, using SSDs lowers power consumption by up to 80% compared to spinning disks. Just what you need to reduce space and energy costs.

Customers with write-intensive applications (synchronous writes) and read-intensive applications (caching frequently accessed data) can see the most benefit with the use of flash-based SSDs. For Sun Storage 7410 configurations, at least two SSD-based Read Flash Accelerators should be used for read-intensive workloads, and at least two Write Flash Accelerators should be used for write-intensive workloads.

### ***The flexibility to meet your changing needs***

The Sun Storage 7410 provides you with the highest-density server/storage solution available anywhere. Unlike traditional storage architectures, the Sun Storage 7410 is highly adaptable to changing business needs. The system not only scales up to 288 TB of storage capacity, but also scales in multiple dimensions, including I/O throughput, processor performance, cache, and total capacity.

For example, you can increase performance by adding SSDs. As your application requirements change, you can increase computational power by adding more CPUs and cache and expand total capacity by adding enterprise-class high-capacity drive expansion trays.

---

## **Cost-Effective**

### ***Easy on your budget***

Flat or declining budgets are a fact of life in today's IT environments. But so are growing storage demands. The Sun Storage 7410 delivers higher performance at significant savings when compared to the competition.

### ***Eco-efficient***

The Sun Storage 7410 helps you lower costs by reducing energy consumption and offering higher storage density, which reduces space requirements.

### ***No additional software licenses***

Unlike other vendors, who charge license fees for protocols and data services, Sun includes features like iSCSI, Fibre Channel, CIFS, NFS, HTTP, FTP, Replication, Snapshots, De-Duplication, compression and Clones with the price of the system. No additional licenses are required.

## **Solution Description**

This solution details 24,000 mailboxes hosted across 4 separate Sun Fire Servers. The user profile used was 0.32 IOPS per mailbox with a 512MB quota. This is categorized as a "heavy" user per Microsoft's standards.

Although neither CCR, LCR or SCR were tested, it is easy to create a clustered solution based on the building blocks laid out in this document.

### **Networking**

There is a large amount of flexibility in connecting both the mailbox servers as well as the storage back end. The SS7410 has the ability to use 1Gb/s copper, 10Gb/s fibre or InfiniBand as the connection medium. The ability to use LACP link aggregation for throughput and IPMP for failover is also present.

In these tests, the mailbox servers used dual port fibre channel cards connected to a dual port 8Gb/s Qlogic HBA. The built in Microsoft MPIO was used.

Although the clustering feature of the SS7410 was not used in this test, this feature may be used as well. Live testing with Loadgen during a cluster head failover was successful. The clustered storage heads may be configured to failover with identical throughput and response time in case of a single head failure.

## Storage

The Sun Storage 7410 was setup with one large pool. The pool was comprised of both 1TB SATA-II drives, 100GB R-SSDs for L2ARC (second level read cache), 64GB of DRAM for ARC (first level cache), and 18GB W-SSDs (capacitor backed write cache). All of these technologies are used together seamlessly by the underlying ZFS file system to properly queue, stage and execute storage operations.

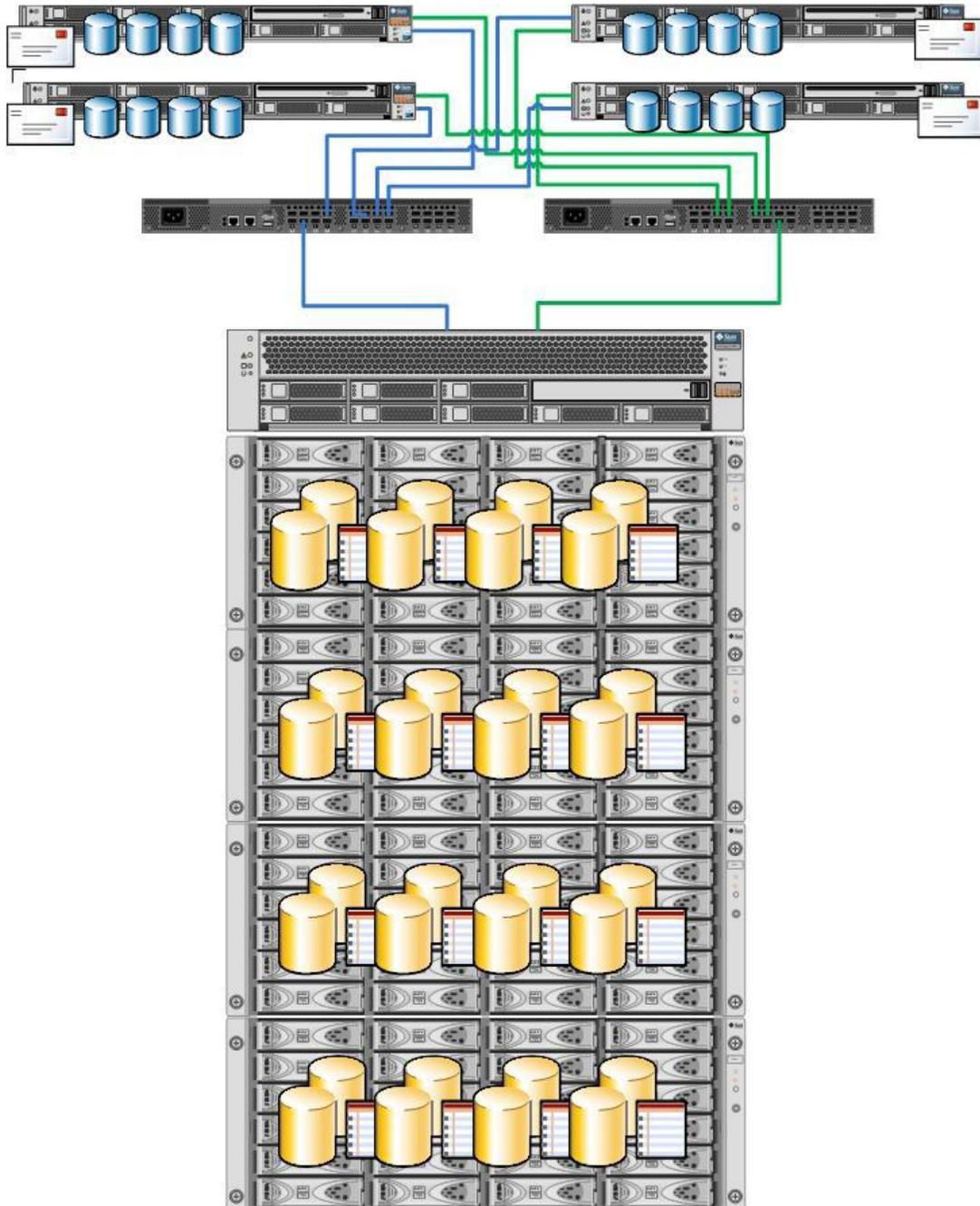


Figure 1 - System Diagram

<http://www.windowservercatalog.com/item.aspx?idItem=a8eb0848-e10c-db0a-662a-438d4b55c671&bCatID=1338>

## Analytics

Storage bottlenecks have often plagued Exchange administrators, or any application administrators for that matter. In the past, often the solution to a disk performance problem was to add additional expensive spindles, move from 10k RPM to 15k RPM or add expensive NVRAM.

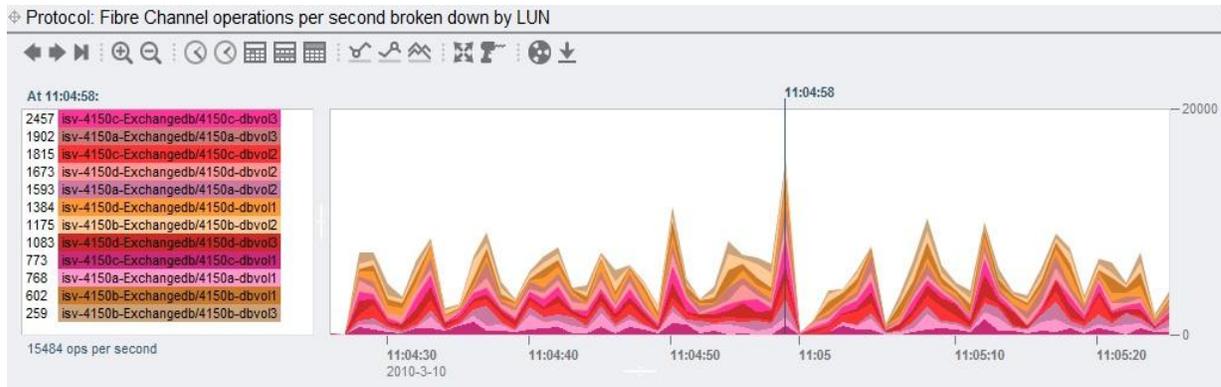
With the built-in Analytics which is based on DTrace, unprecedented visibility is now available to pinpoint storage bottlenecks. Breakdowns of IOPS, throughput, disk usage, disk offset and dozens more statistics are readily available in graphical representations or via the scriptable CLI. Below will detail several screenshots of various measurements during an arbitrary Jetstress run.

Figure 2 shows four Exchange servers running each with 2 FC ports. By analyzing this graph, isv-4150b only has a single port active running roughly twice the throughput as the others while the other 3 servers have half the throughput via 2 ports. It looks like isv-4150b's MPIO settings may be set to failover only, or a port may be down.



**Figure 2 Fibre Channel bytes per second**

Each Exchange server has 3 dbvol LUNs. As shown in Figure 3, each LUN can be viewed to see where there may be hot spots. Additional mailboxes can be placed in lower utilized LUNs.



**Figure 3 Fibre Channel operations per second**

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. Other factors which affect the server scalability are: 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, and client usage profiles. All these factors are beyond the scope for ESRP-Storage. Therefore, the number of mailboxes hosted per server as part of the tested configuration may not necessarily be viable for some customer deployment.

For more information on identifying and addressing performance bottlenecks in an Exchange system, please refer to Microsoft's Troubleshooting Microsoft Exchange Server Performance, available at <http://go.microsoft.com/fwlink/?LinkId=23454>.

### ***Targeted Customer Profile***

Describe the suitable customer type for this solution.

- The solution presented is targeting a large mailbox deployment.
- This solution presented four concurrent servers, but allows for as many servers as the IOPS and response time requirements allow.
- 0.32 IOPS
- 512MB Quota

### ***Tested Deployment***

The following tables summarize the testing environment:

### Simulated Exchange Configuration:

Number of Exchange mailboxes simulated	24,000
Number of hosts	4
Number of mailboxes/host	6,000
Number of storage groups/host	30
Number of mailbox stores/storage group	1
Number of mailboxes/mailbox store	200
Number of mailbox store LUNs/storage group	1
Simulated profile: I/O's per second per mailbox (IOPS, include 20% headroom)	0.32
Database LUN size	2048GB
Log LUN size	400GB
Total database size for performance testing	3,924GB
% storage capacity used by Exchange database**	47.9%

\*\*Storage performance characteristics change based on the percentage utilization of the individual disks. Tests that use a small percentage of the storage (~25%) may exhibit reduced throughput if the storage capacity utilization is significantly increased beyond what is tested in this paper.

### Primary Storage Hardware

Storage Connectivity (Fiber Channel, SAS, SATA, iSCSI)	Fibre Channel
Storage model and OS/firmware revision	Sun Unified Storage System 7410 – 2010.03.01 <a href="http://www.windowsservercatalog.com/item.aspx?id=Item=a8eb0848-e10c-db0a-662a-438d4b55c671&amp;bCatID=1338">http://www.windowsservercatalog.com/item.aspx?id=Item=a8eb0848-e10c-db0a-662a-438d4b55c671&amp;bCatID=1338</a>
Storage cache	536GB total, 72GB write cache, 64GB ARC, 400GB L2ARC
Number of storage controllers	2
Number of storage ports	2 total, 2 x 8Gb/s
Maximum bandwidth of storage connectivity to host	16Gb, 2x8Gb
Switch	Brocade 300

type/model/firmware revision	
HBA model and firmware	Emulex LightPulse LPe12002, 1.11A5 Emulex LightPulse LPe11000, 2.82A3
Number of HBA's/host	2, 2, 2 and 1
Host server type	2 x Quad-core Intel Xeon E5460, 20GB (4150b) 2 x Quad-core Intel Xeon E5460, 22GB (4150d) 1 x Quad-core Intel Xeon E5410, 32GB (4150c) 2 x Quad-core Intel Xeon E5355, 32GB (4150a)
Total number of disks tested in solution	140 SATA-II, 4 18GB W-SSDs, 4 100GB R-SSDs
Maximum number of spindles can be hosted in the storage	288

### Primary Storage Software

HBA driver	Emulex Storport Miniport 7.2.20.6
HBA QueueTarget Setting	0
HBA QueueDepth Setting	254
Multi-Pathing	Microsoft DSM – 6.0.6001.18000
Host OS	Windows Server 2008 SP2
ESE.dll file version	08.02.0176.000

### Primary Storage Disk Configuration (Mailbox Store Disks)

Disk type, speed and firmware revision	SATA II – 7200RPM - SU0E W-SSD - 03CD R-SSD - 2103
Raw capacity per disk (GB)	SATA II -1TB W-SSD – 18GB R-SSD – 100GB
Number of physical disks in test	148
total raw storage capacity (GB)	130,480GB
Number of disks per LUN	140
Raid level	RAID 10
Total formatted capacity	24,576GB
Storage capacity utilization	18.8%
Database capacity utilization	10.7%

### Primary Storage Disk Configuration (Transactional Log Disks)

Disk type, speed and firmware	SAS – 10,000RPM - 0603
-------------------------------	------------------------

revision	
Raw capacity per disk (GB)	146GB
Number of Spindles in test	6
total raw storage capacity (GB)	876GB
Number of disks per LUN	6
Raid level	RAID 10
Total formatted capacity	408GB

## Best Practices

Exchange server is a disk-intensive application. Based on the testing run using the ESRP framework, we would recommend the following to improve the storage performance.

For Exchange 2007 best practices on storage design, please visit <http://technet.microsoft.com/en-us/library/bb124518.aspx>

## Core Storage

1. Used the mirrored profile when creating the pools for both the database LUNs and the transactional log LUNs.
2. Create the database LUNs and transactional log LUNs with an 8k volume record size.
3. Do not enable write cache.
4. With Windows Server 2003, use `diskpart.exe` to align the sectors at 64k. Windows Server 2008 does this automatically.
5. Do not share Exchange 2007 disks with any other applications that are I/O intensive. This will have a negative effect on your disk subsystem performance.
6. Use Analytics to troubleshoot any latency issues.

## Contact for Additional Information

<http://www.sun.com/exchange>

[http://www.sun.com/storage/disk\\_systems/unified\\_storage](http://www.sun.com/storage/disk_systems/unified_storage)

## Test Result Summary

This section provides a high level summary of the test data from ESRP and the link to the detailed html reports which are generated by ESRP testing

framework. Please click on the underlined headings below to view the html report for each test.

### ***Reliability***

A number of tests in the framework are to check Reliability tests runs for 24 hours. The goal is to verify the storage can handle high IO load for a long period of time. Both log and database files will be analyzed for integrity after the stress test to ensure no database/log corruption.

The following list provides an overview: (click on the underlined word will show the html report after the reliability tests run)

- No errors were reported in the saved event log file.
- No errors were reported in during the database and log checksum process.

### ***Primary Storage Performance Results***

The Primary Storage performance testing is designed to exercise the storage with maximum sustainable Exchange type of IO for 2 hours. The test is to show how long it takes for the storage to respond to an IO under load. The data below is the sum of all of the logical disk I/O's and average of all the logical disks I/O latency in the 2 hours test duration. Each server is listed separately and the aggregate numbers across all servers is listed as well.

#### **Individual Server Metrics:**

The sum of I/O's across Storage Groups and the average latency across all Storage Groups on a per server basis.

<b>Database I/O</b>	<b>isv-4150a</b>
Database Disks Transfers/sec	2284.112
Database Disks Reads/sec	947.043
Database Disks Writes/sec	1337.070
Average Database Disk Read Latency (ms)	10
Average Database Disk Write Latency (ms)	7
<b>Transaction Log I/O</b>	
Log Disks Writes/sec	434.309
Average Log Disk Write Latency (ms)	1

<b>Database I/O</b>	<b>isv-4150b</b>
Database Disks Transfers/sec	2340.46
Database Disks Reads/sec	970.761
Database Disks Writes/sec	1369.702
Average Database Disk Read Latency (ms)	9

Average Database Disk Write Latency (ms)	7
<b>Transaction Log I/O</b>	
Log Disks Writes/sec	426.6
Average Log Disk Write Latency (ms)	1

<b>Database I/O</b>	<b>isv-4150c</b>
Database Disks Transfers/sec	2366.18
Database Disks Reads/sec	984.739
Database Disks Writes/sec	434.309
Average Database Disk Read Latency (ms)	10
Average Database Disk Write Latency (ms)	7
<b>Transaction Log I/O</b>	
Log Disks Writes/sec	434.309
Average Log Disk Write Latency (ms)	1

<b>Database I/O</b>	<b>isv-4150d</b>
Database Disks Transfers/sec	2331.87
Database Disks Reads/sec	966.156
Database Disks Writes/sec	1365.709
Average Database Disk Read Latency (ms)	9
Average Database Disk Write Latency (ms)	7
<b>Transaction Log I/O</b>	
Log Disks Writes/sec	424.717
Average Log Disk Write Latency (ms)	1

**Aggregate Performance across all servers Metrics:**

The sum of I/O's across servers in solution and the average latency across all all servers in solution.

<b>Database I/O</b>	
Database Disks Transfers/sec	9322.62
Database Disks Reads/sec	3868.699
Database Disks Writes/sec	5453.919
Average Database Disk Read Latency (ms)	10
Average Database Disk Write Latency (ms)	7
<b>Transaction Log I/O</b>	
Log Disks Writes/sec	1699.658
Average Log Disk Write Latency (ms)	1

**Streaming Backup/Recovery Performance**

For the Version 1.0 release, only streaming backup type is supported for testing in the framework. There are two tests in this section. First one is to measure the read IO performance metrics by running checksum on all the databases and log files. The second test is to measure the end to end performance when the databases are backed up to disks.

## Database Read-only Performance

The test is to measure the maximum rate at which databases could be streaming backed up. The following table shows the average rate for a single database file.

### isv-4150a

MB read/sec per storage group	3.64
MB read/sec total	109.05

### isv-4150b

MB read/sec per storage group	3.63
MB read/sec total	108.78

### isv-4150c

MB read/sec per storage group	3.76
MB read/sec total	112.84

### isv-4150d

MB read/sec per storage group	3.68
MB read/sec total	110.27

### Total Across 4 Servers

MB read/sec per storage group	3.67
MB read/sec total	440.94

## Log Read-only Performance

The test is to measure the maximum rate at which the log files can be played against the databases. The following table shows the average rate for 500 log files played in a single storage group. Each log file is 1 MB in size.

Average time to play one Log file (sec)	2.6
---	-----

## Conclusion

This document is developed by storage solution providers, and reviewed by Microsoft Exchange Product team. The test results/data presented in this document is based on the tests introduced in the ESRP test framework.

Customer should not quote the data directly for his/her pre-deployment verification. It is still necessary to go through the exercises to validate the storage design for a specific customer environment.

ESRP program is not designed to be a benchmarking program; tests are not designed to getting the maximum throughput for a giving solution. Rather, it is focused on producing recommendations from vendors for Exchange application. So the data presented in this document should not be used for direct comparisons among the solutions.

## Appendix

### Microsoft Exchange Server **Jetstress**

#### *Performance Test Result Report - isv-4150a*

Test Summary

**Overall Test Result** **Pass**

**Machine Name** ISV-4150A

**Test Description**

**Test Start Time** 3/3/2010 9:00:28 AM

**Test End Time** 3/3/2010 12:24:17 PM

**Jetstress Version** 08.02.0060.000

**Ese Version** 08.02.0176.000

**Operating System** Windows Server (R) 2008 Enterprise Service Pack 2 (6.0.6002.131072)

**Performance Log** <C:\Exchange\24k .25-512-8krecord\24stress\Performance 2010 3 3 9 1 31.blg>  
<C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum 2010 3 3 12 24 17.blg>

Database Sizing and Throughput

**Achieved I/O per Second** 1874.067

**Target I/O per Second** 1500

**Initial database size** 3271239368704

**Final database size** 3279959326720

**Database files (count)** 30

Jetstress System Parameters

**Thread count** 2 (per-storage group)

**Log buffers** 9000

**Minimum database cache** 960.0 MB

**Maximum database cache** 7680.0 MB

**Insert operations** 25%

**Delete operations** 10%

**Replace operations** 50%

**Read operations** 15%

**Lazy commits** 80%

Disk Subsystem Performance

LogicalDisk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
<b>Database (F:)</b>	0.011	0.007	260.908	367.185	(n/a)
<b>Database (G:)</b>	0.012	0.007	259.452	363.663	(n/a)
<b>Database (H:)</b>	0.011	0.007	259.955	362.903	(n/a)
<b>Log (Q:)</b>	0.000	0.000	0.000	114.352	16011.590
<b>Log (R:)</b>	0.000	0.000	0.000	112.948	16072.951
<b>Log (S:)</b>	0.000	0.000	0.000	112.552	16072.449

#### Host System Performance

Counter	Average	Minimum	Maximum
<b>% Processor Time</b>	2.277	0.761	4.128
<b>Available MBytes</b>	22162.217	22062.000	22922.000
<b>Free System Page Table Entries</b>	33559564.495	33558631.000	33560251.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	71015293.595	70635520.000	71303168.000
<b>Pool Paged Bytes</b>	143074802.104	142225408.000	190963712.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/3/2010 9:00:28 AM -- Jetstress testing begins ...

3/3/2010 9:00:28 AM -- Prepare testing begins ...

3/3/2010 9:00:59 AM -- Attaching databases ...

3/3/2010 9:00:59 AM -- Prepare testing ends.

3/3/2010 9:00:59 AM -- Dispatching transactions begins ...

3/3/2010 9:00:59 AM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)

3/3/2010 9:00:59 AM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)

3/3/2010 9:01:31 AM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).

3/3/2010 9:01:31 AM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).

3/3/2010 9:01:36 AM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.

3/3/2010 9:01:36 AM -- Performance logging begins (interval: 15000 ms).

3/3/2010 9:01:36 AM -- Attaining prerequisites:

3/3/2010 9:37:12 AM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 7248183000.0 (lower bound: 7247757000.0, upper bound: none)

3/3/2010 11:37:13 AM -- Performance logging ends.

3/3/2010 12:24:11 PM -- JetInterop batch transaction stats: 7055, 7042, 6977, 6894, 6942, 7118, 7121, 7130, 6929, 6938, 6927, 7086, 7019, 6971, 7066, 7140, 7105, 7001, 6835, 6997, 6958, 6988, 7068, 6932, 6925, 6993, 6876, 6960, 7066, and 7065.

3/3/2010 12:24:11 PM -- Dispatching transactions ends.

3/3/2010 12:24:11 PM -- Shutting down databases ...

3/3/2010 12:24:17 PM -- Instance612.1 (complete), Instance612.2 (complete), Instance612.3 (complete), Instance612.4 (complete), Instance612.5 (complete), Instance612.6 (complete), Instance612.7 (complete), Instance612.8 (complete), Instance612.9 (complete), Instance612.10 (complete), Instance612.11 (complete), Instance612.12 (complete), Instance612.13 (complete), Instance612.14 (complete), Instance612.15 (complete), Instance612.16 (complete), Instance612.17 (complete), Instance612.18 (complete),

Instance612.19 (complete), Instance612.20 (complete), Instance612.21 (complete), Instance612.22 (complete), Instance612.23 (complete), Instance612.24 (complete), Instance612.25 (complete), Instance612.26 (complete), Instance612.27 (complete), Instance612.28 (complete), Instance612.29 (complete), and Instance612.30 (complete)  
 3/3/2010 12:24:18 PM -- Performance logging begins (interval: 30000 ms).  
 3/3/2010 12:24:18 PM -- Verifying database checksums ...  
 3/3/2010 12:24:30 PM -- F: (0% processed), G: (0% processed), and H: (0% processed)  
 3/3/2010 12:24:31 PM -- Verifying log checksums ...  
 3/3/2010 12:24:31 PM -- Q:\sg1 (0 logs passed), Q:\sg2 (0 logs passed), Q:\sg3 (0 logs passed), Q:\sg4 (0 logs passed), Q:\sg5 (0 logs passed), Q:\sg6 (0 logs passed), Q:\sg7 (0 logs passed), Q:\sg8 (0 logs passed), Q:\sg9 (0 logs passed), Q:\sg10 (0 logs passed), R:\sg1 (0 logs passed), R:\sg2 (0 logs passed), R:\sg3 (0 logs passed), R:\sg4 (0 logs passed), R:\sg5 (0 logs passed), R:\sg6 (0 logs passed), R:\sg7 (0 logs passed), R:\sg8 (0 logs passed), R:\sg9 (0 logs passed), R:\sg10 (0 logs passed), S:\sg1 (0 logs passed), S:\sg2 (0 logs passed), S:\sg3 (0 logs passed), S:\sg4 (0 logs passed), S:\sg5 (0 logs passed), S:\sg6 (0 logs passed), S:\sg7 (0 logs passed), S:\sg8 (0 logs passed), S:\sg9 (0 logs passed), and S:\sg10 (0 logs passed)  
 3/3/2010 12:24:31 PM -- [C:\Exchange\24k .25-512-8krecord\24stress\Performance 2010 3 3 9 1 31.blg](#) has 621 samples.  
 3/3/2010 12:24:31 PM -- Creating test report ...  
 3/3/2010 12:24:43 PM -- Volume F: has 0.0113 for Avg. Disk sec/Read.  
 3/3/2010 12:24:43 PM -- Volume G: has 0.0115 for Avg. Disk sec/Read.  
 3/3/2010 12:24:43 PM -- Volume H: has 0.0113 for Avg. Disk sec/Read.  
 3/3/2010 12:24:43 PM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.  
 3/3/2010 12:24:43 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
 3/3/2010 12:24:43 PM -- Volume R: has 0.0001 for Avg. Disk sec/Write.  
 3/3/2010 12:24:43 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
 3/3/2010 12:24:43 PM -- Volume S: has 0.0002 for Avg. Disk sec/Write.  
 3/3/2010 12:24:43 PM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
 3/3/2010 12:24:43 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
 3/3/2010 12:24:43 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
 3/3/2010 12:24:43 PM -- [C:\Exchange\24k .25-512-8krecord\24stress\Performance 2010 3 3 9 1 31.xml](#) has 478 samples queried.

## Microsoft Exchange Server **Jetstress**

### ***Performance Test Result Report - isv-4150b***

#### Test Summary

**Overall Test Result** **Pass**

**Machine Name** ISV-4150B

#### Test

#### Description

**Test Start Time** 3/2/2010 1:36:05 PM

**Test End Time** 3/2/2010 4:25:32 PM

**Jetstress Version** 08.02.0060.000

**Ese Version** 08.02.0176.000

**Operating System** Windows Server (R) 2008 Enterprise Service Pack 1 (6.0.6001.65536)

**Performance Log** [C:\Exchange\24k .25-512-8krecord\2hr-perf\Performance 2010 3 2 13 37 8.blg](#)  
[C:\Exchange\24k .25-512-8krecord\2hr-](#)

Database Sizing and Throughput

**Achieved I/O per Second** 2340.464  
**Target I/O per Second** 1920  
**Initial database size** 3263354077184  
**Final database size** 3271732199424  
**Database files (count)** 30

Jetstress System Parameters

**Thread count** 2 (per-storage group)  
**Log buffers** 9000  
**Minimum database cache** 960.0 MB  
**Maximum database cache** 7680.0 MB  
**Insert operations** 25%  
**Delete operations** 10%  
**Replace operations** 50%  
**Read operations** 15%  
**Lazy commits** 80%

Disk Subsystem Performance

LogicalDisk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
Database (F:)	0.009	0.007	323.007	457.400	(n/a)
Database (G:)	0.009	0.007	325.891	458.995	(n/a)
Database (H:)	0.009	0.007	321.863	453.307	(n/a)
Log (Q:)	0.000	0.000	0.000	142.634	16169.838
Log (R:)	0.000	0.000	0.000	142.851	16193.330
Log (S:)	0.000	0.000	0.000	141.115	16281.621

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	2.358	0.959	6.489
Available MBytes	10254.493	10124.000	11026.000
Free System Page Table Entries	33560120.374	33559413.000	33560627.000
Transition Pages RePurposed/sec	0.000	0.000	0.000
Pool Nonpaged Bytes	72571499.958	72527872.000	72613888.000
Pool Paged Bytes	180806512.768	180797440.000	180854784.000
Database Page Fault Stalls/sec	0.000	0.000	0.000

Test Log3/2/2010 1:30:23 PM -- Jetstress testing begins ...  
 3/2/2010 1:30:23 PM -- Prepare testing begins ...  
 3/2/2010 1:30:54 PM -- Attaching databases ...  
 3/2/2010 1:30:54 PM -- Prepare testing ends.  
 3/2/2010 1:30:54 PM -- Dispatching transactions begins ...  
 3/2/2010 1:30:54 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)  
 3/2/2010 1:30:54 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)  
 3/2/2010 1:31:27 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).  
 3/2/2010 1:31:27 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).  
 3/2/2010 1:31:30 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.  
 3/2/2010 1:31:30 PM -- Performance logging begins (interval: 15000 ms).  
 3/2/2010 1:31:30 PM -- Attaining prerequisites:  
 3/2/2010 1:33:19 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 698982400.0 (lower bound: 7247757000.0, upper bound: none)  
 3/2/2010 1:33:19 PM -- Performance logging ends.  
 3/2/2010 1:33:20 PM -- JetInterop batch transaction stats: 42, 28, 44, 49, 47, 46, 46, 45, 40, 51, 51, 53, 49, 47, 44, 31, 46, 54, 61, 52, 46, 51, 35, 52, 47, 36, 47, 47, 44, and 40.  
 3/2/2010 1:33:21 PM -- Dispatching transactions ends.  
 3/2/2010 1:33:21 PM -- Shutting down databases ...  
 3/2/2010 1:33:22 PM -- Instance3396.1 (complete), Instance3396.2 (complete), Instance3396.3 (complete), Instance3396.4 (complete), Instance3396.5 (complete), Instance3396.6 (complete), Instance3396.7 (complete), Instance3396.8 (complete), Instance3396.9 (complete), Instance3396.10 (complete), Instance3396.11 (complete), Instance3396.12 (complete), Instance3396.13 (complete), Instance3396.14 (complete), Instance3396.15 (complete), Instance3396.16 (complete), Instance3396.17 (complete), Instance3396.18 (complete), Instance3396.19 (complete), Instance3396.20 (complete), Instance3396.21 (complete), Instance3396.22 (complete), Instance3396.23 (complete), Instance3396.24 (complete), Instance3396.25 (complete), Instance3396.26 (complete), Instance3396.27 (complete), Instance3396.28 (complete), Instance3396.29 (complete), and Instance3396.30 (complete)  
 3/2/2010 1:33:22 PM -- Performance logging begins (interval: 30000 ms).  
 3/2/2010 1:33:22 PM -- Verifying database checksums ...  
 3/2/2010 1:33:39 PM -- F: (0% processed), G: (0% processed), and H: (0% processed)  
 3/2/2010 1:33:39 PM -- Verifying log checksums ...  
 3/2/2010 1:33:39 PM -- Q:\sg1 (0 logs passed), Q:\sg2 (0 logs passed), Q:\sg3 (0 logs passed), Q:\sg4 (0 logs passed), Q:\sg5 (0 logs passed), Q:\sg6 (0 logs passed), Q:\sg7 (0 logs passed), Q:\sg8 (0 logs passed), Q:\sg9 (0 logs passed), Q:\sg10 (0 logs passed), R:\sg1 (0 logs passed), R:\sg2 (0 logs passed), R:\sg3 (0 logs passed), R:\sg4 (0 logs passed), R:\sg5 (0 logs passed), R:\sg6 (0 logs passed), R:\sg7 (0 logs passed), R:\sg8 (0 logs passed), R:\sg9 (0 logs passed), R:\sg10 (0 logs passed), S:\sg1 (0 logs passed), S:\sg2 (0 logs passed), S:\sg3 (0 logs passed), S:\sg4 (0 logs passed), S:\sg5 (0 logs passed), S:\sg6 (0 logs passed), S:\sg7 (0 logs passed), S:\sg8 (0 logs passed), S:\sg9 (0 logs passed), and S:\sg10 (0 logs passed)  
 3/2/2010 1:33:39 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_31\\_27.blg](#) has 7 samples.  
 3/2/2010 1:33:39 PM -- Creating test report ...  
 3/2/2010 1:33:39 PM -- Volume F: has 0.0105 for Avg. Disk sec/Read.  
 3/2/2010 1:33:39 PM -- Volume G: has 0.0105 for Avg. Disk sec/Read.  
 3/2/2010 1:33:39 PM -- Volume H: has 0.0108 for Avg. Disk sec/Read.  
 3/2/2010 1:33:39 PM -- Volume Q: has 0.0003 for Avg. Disk sec/Write.  
 3/2/2010 1:33:39 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
 3/2/2010 1:33:39 PM -- Volume R: has 0.0003 for Avg. Disk sec/Write.  
 3/2/2010 1:33:39 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
 3/2/2010 1:33:39 PM -- Volume S: has 0.0004 for Avg. Disk sec/Write.

3/2/2010 1:33:40 PM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
 3/2/2010 1:33:40 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
 3/2/2010 1:33:40 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
 3/2/2010 1:33:40 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_31\\_27.xml](#) has 6 samples queried.  
 3/2/2010 1:33:40 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_31\\_27.html](#) is saved.  
 3/2/2010 1:33:40 PM -- Jetstress testing ends.  
 3/2/2010 1:36:05 PM -- Jetstress testing begins ...  
 3/2/2010 1:36:05 PM -- Prepare testing begins ...  
 3/2/2010 1:36:36 PM -- Attaching databases ...  
 3/2/2010 1:36:36 PM -- Prepare testing ends.  
 3/2/2010 1:36:36 PM -- Dispatching transactions begins ...  
 3/2/2010 1:36:36 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)  
 3/2/2010 1:36:36 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)  
 3/2/2010 1:37:08 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).  
 3/2/2010 1:37:08 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).  
 3/2/2010 1:37:11 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.  
 3/2/2010 1:37:11 PM -- Performance logging begins (interval: 15000 ms).  
 3/2/2010 1:37:11 PM -- Attaining prerequisites:  
 3/2/2010 2:24:08 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 7252140000.0 (lower bound: 7247757000.0, upper bound: none)  
 3/2/2010 4:24:08 PM -- Performance logging ends.  
 3/2/2010 4:25:24 PM -- JetInterop batch transaction stats: 6729, 6705, 6768, 6596, 6628, 6704, 6820, 6676, 6696, 6792, 6586, 6756, 6558, 6724, 6632, 6690, 6725, 6751, 6687, 6767, 6598, 6757, 6747, 6728, 6673, 6558, 6531, 6603, 6727, and 6729.  
 3/2/2010 4:25:24 PM -- Dispatching transactions ends.  
 3/2/2010 4:25:24 PM -- Shutting down databases ...  
 3/2/2010 4:25:32 PM -- Instance3396.1 (complete), Instance3396.2 (complete), Instance3396.3 (complete), Instance3396.4 (complete), Instance3396.5 (complete), Instance3396.6 (complete), Instance3396.7 (complete), Instance3396.8 (complete), Instance3396.9 (complete), Instance3396.10 (complete), Instance3396.11 (complete), Instance3396.12 (complete), Instance3396.13 (complete), Instance3396.14 (complete), Instance3396.15 (complete), Instance3396.16 (complete), Instance3396.17 (complete), Instance3396.18 (complete), Instance3396.19 (complete), Instance3396.20 (complete), Instance3396.21 (complete), Instance3396.22 (complete), Instance3396.23 (complete), Instance3396.24 (complete), Instance3396.25 (complete), Instance3396.26 (complete), Instance3396.27 (complete), Instance3396.28 (complete), Instance3396.29 (complete), and Instance3396.30 (complete)  
 3/2/2010 4:25:32 PM -- Performance logging begins (interval: 30000 ms).  
 3/2/2010 4:25:32 PM -- Verifying database checksums ...  
 3/2/2010 11:09:48 PM -- F: (100% processed), G: (100% processed), and H: (100% processed)  
 3/2/2010 11:09:48 PM -- Performance logging ends.  
 3/2/2010 11:09:48 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\DBChecksum\\_2010\\_3\\_2\\_16\\_25\\_32.blg](#) has 808 samples.  
 3/2/2010 11:09:55 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\DBChecksum\\_2010\\_3\\_2\\_16\\_25\\_32.html](#) is saved.  
 3/2/2010 11:09:55 PM -- Verifying log checksums ...  
 3/2/2010 11:10:04 PM -- Q:\sg1 (2 logs passed), Q:\sg2 (2 logs passed), Q:\sg3 (2 logs passed), Q:\sg4 (2 logs passed), Q:\sg5 (2 logs passed), Q:\sg6 (2 logs passed), Q:\sg7 (2 logs passed), Q:\sg8 (2 logs passed), Q:\sg9 (2 logs passed), Q:\sg10 (2 logs passed), R:\sg1 (2 logs passed), R:\sg2 (2 logs passed), R:\sg3 (2 logs passed), R:\sg4 (2 logs passed), R:\sg5 (2 logs passed), R:\sg6 (2 logs passed), R:\sg7 (2 logs passed), R:\sg8 (2 logs passed), R:\sg9 (2 logs passed), R:\sg10 (2 logs passed), S:\sg1 (2 logs passed), S:\sg2 (2 logs passed), S:\sg3 (2 logs passed), S:\sg4 (2 logs passed), S:\sg5 (2 logs passed), S:\sg6

(2 logs passed), S:\sg7 (3 logs passed), S:\sg8 (2 logs passed), S:\sg9 (2 logs passed), and S:\sg10 (2 logs passed)  
 3/2/2010 11:10:04 PM -- [C:\Exchange\24k .25-512-8krecord\2hr-perf\Performance 2010 3 2 13 37 8.blg](#) has 666 samples.  
 3/2/2010 11:10:04 PM -- Creating test report ...  
 3/2/2010 11:10:13 PM -- Volume F: has 0.0094 for Avg. Disk sec/Read.  
 3/2/2010 11:10:13 PM -- Volume G: has 0.0094 for Avg. Disk sec/Read.  
 3/2/2010 11:10:13 PM -- Volume H: has 0.0093 for Avg. Disk sec/Read.  
 3/2/2010 11:10:13 PM -- Volume Q: has 0.0003 for Avg. Disk sec/Write.  
 3/2/2010 11:10:13 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
 3/2/2010 11:10:13 PM -- Volume R: has 0.0003 for Avg. Disk sec/Write.  
 3/2/2010 11:10:13 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
 3/2/2010 11:10:13 PM -- Volume S: has 0.0004 for Avg. Disk sec/Write.  
 3/2/2010 11:10:13 PM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
 3/2/2010 11:10:13 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
 3/2/2010 11:10:13 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
 3/2/2010 11:10:13 PM -- [C:\Exchange\24k .25-512-8krecord\2hr-perf\Performance 2010 3 2 13 37 8.xml](#) has 478 samples queried.

## Microsoft Exchange Server **Jetstress**

### *Performance Test Result Report - isv-4150c*

#### Test Summary

**Overall Test Result** **Pass**

**Machine Name** ISV-4150C

#### Test

#### Description

**Test Start Time** 3/2/2010 1:36:09 PM

**Test End Time** 3/2/2010 4:25:38 PM

**Jetstress Version** 08.02.0060.000

**Ese Version** 08.02.0176.000

**Operating System** Windows Server (R) 2008 Enterprise Service Pack 2 (6.0.6002.131072)

**Performance Log** [C:\Exchange\24k .25-512-8krecord\2hr-perf\Performance 2010 3 2 13 37 13.blg](#)  
[C:\Exchange\24k .25-512-8krecord\2hr-perf\DBChecksum 2010 3 2 16 25 38.blg](#)

#### Database Sizing and Throughput

**Achieved I/O per Second** 2366.178

**Target I/O per Second** 1920

**Initial database size** 3265025507328

**Final database size** 3273380560896

**Database files (count)** 30

#### Jetstress System Parameters

**Thread count** 2 (per-storage group)  
**Log buffers** 9000  
**Minimum database cache** 960.0 MB  
**Maximum database cache** 7680.0 MB  
**Insert operations** 25%  
**Delete operations** 10%  
**Replace operations** 50%  
**Read operations** 15%  
**Lazy commits** 80%

#### Disk Subsystem Performance

LogicalDisk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
<b>Database (F:)</b>	0.010	0.007	328.659	461.010	(n/a)
<b>Database (G:)</b>	0.010	0.006	329.018	461.100	(n/a)
<b>Database (H:)</b>	0.010	0.007	327.062	459.328	(n/a)
<b>Log (Q:)</b>	0.000	0.000	0.000	145.076	15958.105
<b>Log (R:)</b>	0.000	0.000	0.000	144.874	16039.817
<b>Log (S:)</b>	0.000	0.000	0.000	144.359	16164.943

#### Host System Performance

Counter	Average	Minimum	Maximum
<b>% Processor Time</b>	3.391	0.622	4.931
<b>Available MBytes</b>	22595.713	22577.000	23361.000
<b>Free System Page Table Entries</b>	33561563.973	33560670.000	33562175.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	72616473.600	72556544.000	72785920.000
<b>Pool Paged Bytes</b>	154116727.467	154116096.000	154136576.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/2/2010 1:30:24 PM -- Jetstress testing begins ...

3/2/2010 1:30:24 PM -- Prepare testing begins ...

3/2/2010 1:30:55 PM -- Attaching databases ...

3/2/2010 1:30:55 PM -- Prepare testing ends.

3/2/2010 1:30:55 PM -- Dispatching transactions begins ...

3/2/2010 1:30:55 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)

3/2/2010 1:30:55 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)

3/2/2010 1:31:29 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).

3/2/2010 1:31:29 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).

3/2/2010 1:31:33 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.

3/2/2010 1:31:33 PM -- Performance logging begins (interval: 15000 ms).

3/2/2010 1:31:33 PM -- Attaining prerequisites:  
 3/2/2010 1:33:22 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 657301500.0 (lower bound: 7247757000.0, upper bound: none)  
 3/2/2010 1:33:22 PM -- Performance logging ends.  
 3/2/2010 1:33:23 PM -- JetInterop batch transaction stats: 38, 38, 55, 40, 42, 57, 31, 47, 40, 44, 48, 43, 33, 30, 37, 39, 37, 35, 36, 41, 40, 40, 30, 51, 42, 38, 50, 41, 46, and 45.  
 3/2/2010 1:33:25 PM -- Dispatching transactions ends.  
 3/2/2010 1:33:25 PM -- Shutting down databases ...  
 3/2/2010 1:33:30 PM -- Instance300.1 (complete), Instance300.2 (complete), Instance300.3 (complete), Instance300.4 (complete), Instance300.5 (complete), Instance300.6 (complete), Instance300.7 (complete), Instance300.8 (complete), Instance300.9 (complete), Instance300.10 (complete), Instance300.11 (complete), Instance300.12 (complete), Instance300.13 (complete), Instance300.14 (complete), Instance300.15 (complete), Instance300.16 (complete), Instance300.17 (complete), Instance300.18 (complete), Instance300.19 (complete), Instance300.20 (complete), Instance300.21 (complete), Instance300.22 (complete), Instance300.23 (complete), Instance300.24 (complete), Instance300.25 (complete), Instance300.26 (complete), Instance300.27 (complete), Instance300.28 (complete), Instance300.29 (complete), and Instance300.30 (complete)  
 3/2/2010 1:33:31 PM -- Performance logging begins (interval: 30000 ms).  
 3/2/2010 1:33:31 PM -- Verifying database checksums ...  
 3/2/2010 1:33:39 PM -- F: (0% processed), G: (0% processed), and H: (0% processed)  
 3/2/2010 1:33:39 PM -- Verifying log checksums ...  
 3/2/2010 1:33:39 PM -- Q:\sg1 (0 logs passed), Q:\sg2 (0 logs passed), Q:\sg3 (0 logs passed), Q:\sg4 (0 logs passed), Q:\sg5 (0 logs passed), Q:\sg6 (0 logs passed), Q:\sg7 (0 logs passed), Q:\sg8 (0 logs passed), Q:\sg9 (0 logs passed), Q:\sg10 (0 logs passed), R:\sg1 (0 logs passed), R:\sg2 (0 logs passed), R:\sg3 (0 logs passed), R:\sg4 (0 logs passed), R:\sg5 (0 logs passed), R:\sg6 (0 logs passed), R:\sg7 (0 logs passed), R:\sg8 (0 logs passed), R:\sg9 (0 logs passed), R:\sg10 (0 logs passed), S:\sg1 (0 logs passed), S:\sg2 (0 logs passed), S:\sg3 (0 logs passed), S:\sg4 (0 logs passed), S:\sg5 (0 logs passed), S:\sg6 (0 logs passed), S:\sg7 (0 logs passed), S:\sg8 (0 logs passed), S:\sg9 (0 logs passed), and S:\sg10 (0 logs passed)  
 3/2/2010 1:33:39 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_31\\_29.blg](C:\Exchange\24k_25-512-8krecord\2hr-perf\Performance_2010_3_2_13_31_29.blg) has 7 samples.  
 3/2/2010 1:33:39 PM -- Creating test report ...  
 3/2/2010 1:33:40 PM -- Volume F: has 0.0114 for Avg. Disk sec/Read.  
 3/2/2010 1:33:40 PM -- Volume G: has 0.0127 for Avg. Disk sec/Read.  
 3/2/2010 1:33:40 PM -- Volume H: has 0.0103 for Avg. Disk sec/Read.  
 3/2/2010 1:33:40 PM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.  
 3/2/2010 1:33:40 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
 3/2/2010 1:33:40 PM -- Volume R: has 0.0001 for Avg. Disk sec/Write.  
 3/2/2010 1:33:40 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
 3/2/2010 1:33:40 PM -- Volume S: has 0.0002 for Avg. Disk sec/Write.  
 3/2/2010 1:33:40 PM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
 3/2/2010 1:33:40 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
 3/2/2010 1:33:40 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
 3/2/2010 1:33:40 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_31\\_29.xml](C:\Exchange\24k_25-512-8krecord\2hr-perf\Performance_2010_3_2_13_31_29.xml) has 6 samples queried.  
 3/2/2010 1:33:40 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_31\\_29.html](C:\Exchange\24k_25-512-8krecord\2hr-perf\Performance_2010_3_2_13_31_29.html) is saved.  
 3/2/2010 1:33:40 PM -- Jetstress testing ends.  
 3/2/2010 1:36:09 PM -- Jetstress testing begins ...  
 3/2/2010 1:36:09 PM -- Prepare testing begins ...  
 3/2/2010 1:36:40 PM -- Attaching databases ...  
 3/2/2010 1:36:40 PM -- Prepare testing ends.  
 3/2/2010 1:36:40 PM -- Dispatching transactions begins ...  
 3/2/2010 1:36:40 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)  
 3/2/2010 1:36:40 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)  
 3/2/2010 1:37:13 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).

3/2/2010 1:37:13 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).

3/2/2010 1:37:17 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.

3/2/2010 1:37:17 PM -- Performance logging begins (interval: 15000 ms).

3/2/2010 1:37:17 PM -- Attaining prerequisites:

3/2/2010 2:21:35 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 7250526000.0 (lower bound: 7247757000.0, upper bound: none)

3/2/2010 4:21:35 PM -- Performance logging ends.

3/2/2010 4:25:27 PM -- JetInterop batch transaction stats: 6642, 6787, 6854, 6815, 6808, 6633, 6720, 6735, 6909, 6581, 6783, 6729, 6725, 6756, 6671, 6874, 6761, 6693, 6831, 6807, 6603, 6866, 6823, 6796, 6845, 6944, 6695, 6712, 6812, and 6840.

3/2/2010 4:25:27 PM -- Dispatching transactions ends.

3/2/2010 4:25:27 PM -- Shutting down databases ...

3/2/2010 4:25:38 PM -- Instance300.1 (complete), Instance300.2 (complete), Instance300.3 (complete), Instance300.4 (complete), Instance300.5 (complete), Instance300.6 (complete), Instance300.7 (complete), Instance300.8 (complete), Instance300.9 (complete), Instance300.10 (complete), Instance300.11 (complete), Instance300.12 (complete), Instance300.13 (complete), Instance300.14 (complete), Instance300.15 (complete), Instance300.16 (complete), Instance300.17 (complete), Instance300.18 (complete), Instance300.19 (complete), Instance300.20 (complete), Instance300.21 (complete), Instance300.22 (complete), Instance300.23 (complete), Instance300.24 (complete), Instance300.25 (complete), Instance300.26 (complete), Instance300.27 (complete), Instance300.28 (complete), Instance300.29 (complete), and Instance300.30 (complete)

3/2/2010 4:25:40 PM -- Performance logging begins (interval: 30000 ms).

3/2/2010 4:25:40 PM -- Verifying database checksums ...

3/2/2010 10:24:36 PM -- F: (100% processed), G: (100% processed), and H: (100% processed)

3/2/2010 10:24:37 PM -- Performance logging ends.

3/2/2010 10:24:37 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\DBChecksum\\_2010\\_3\\_2\\_16\\_25\\_38.blg](#) has 717 samples.

3/2/2010 10:24:40 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\DBChecksum\\_2010\\_3\\_2\\_16\\_25\\_38.html](#) is saved.

3/2/2010 10:24:40 PM -- Verifying log checksums ...

3/2/2010 10:24:51 PM -- Q:\sg1 (2 logs passed), Q:\sg2 (2 logs passed), Q:\sg3 (2 logs passed), Q:\sg4 (2 logs passed), Q:\sg5 (2 logs passed), Q:\sg6 (2 logs passed), Q:\sg7 (2 logs passed), Q:\sg8 (2 logs passed), Q:\sg9 (2 logs passed), Q:\sg10 (2 logs passed), R:\sg1 (2 logs passed), R:\sg2 (2 logs passed), R:\sg3 (2 logs passed), R:\sg4 (2 logs passed), R:\sg5 (2 logs passed), R:\sg6 (2 logs passed), R:\sg7 (2 logs passed), R:\sg8 (2 logs passed), R:\sg9 (2 logs passed), R:\sg10 (2 logs passed), S:\sg1 (2 logs passed), S:\sg2 (2 logs passed), S:\sg3 (2 logs passed), S:\sg4 (2 logs passed), S:\sg5 (2 logs passed), S:\sg6 (2 logs passed), S:\sg7 (2 logs passed), S:\sg8 (2 logs passed), S:\sg9 (2 logs passed), and S:\sg10 (3 logs passed)

3/2/2010 10:24:51 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_37\\_13.blg](#) has 656 samples.

3/2/2010 10:24:51 PM -- Creating test report ...

3/2/2010 10:24:56 PM -- Volume F: has 0.0095 for Avg. Disk sec/Read.

3/2/2010 10:24:56 PM -- Volume G: has 0.0096 for Avg. Disk sec/Read.

3/2/2010 10:24:56 PM -- Volume H: has 0.0095 for Avg. Disk sec/Read.

3/2/2010 10:24:56 PM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.

3/2/2010 10:24:56 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.

3/2/2010 10:24:56 PM -- Volume R: has 0.0001 for Avg. Disk sec/Write.

3/2/2010 10:24:56 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.

3/2/2010 10:24:56 PM -- Volume S: has 0.0002 for Avg. Disk sec/Write.

3/2/2010 10:24:56 PM -- Volume S: has 0.0000 for Avg. Disk sec/Read.

3/2/2010 10:24:56 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.

3/2/2010 10:24:56 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.

3/2/2010 10:24:56 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-](#)

[perf\Performance\\_2010\\_3\\_2\\_13\\_37\\_13.xml](#) has 479 samples queried.

## Microsoft Exchange Server **Jetstress**

### *Performance Test Result Report - isv-4150d*

Test Summary

**Overall Test Result** **Pass**

**Machine Name** ISV-4150D

**Test Description**

**Test Start Time** 3/2/2010 1:36:00 PM

**Test End Time** 3/2/2010 4:25:32 PM

**Jetstress Version** 08.02.0060.000

**Ese Version**

08.02.0176.000

**Operating System** Windows Server (R) 2008 Enterprise Service Pack 2 (6.0.6002.131072)

**Performance Log** [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_37\\_5.blg](#)  
[C:\Exchange\24k\\_25-512-8krecord\2hr-perf\DBChecksum\\_2010\\_3\\_2\\_16\\_25\\_32.blg](#)

Database Sizing and Throughput

**Achieved I/O per Second** 2331.866

**Target I/O per Second** 1920

**Initial database size** 3264652214272

**Final database size** 3272883535872

**Database files (count)** 30

Jetstress System Parameters

**Thread count** 2 (per-storage group)

**Log buffers** 9000

**Minimum database cache** 960.0 MB

**Maximum database cache** 7680.0 MB

**Insert operations** 25%

**Delete operations** 10%

**Replace operations** 50%

**Read operations** 15%

**Lazy commits** 80%

Disk Subsystem Performance

<b>LogicalDisk</b>	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
<b>Database</b>	0.009	0.007	322.758	456.875	(n/a)

<b>(F:)</b>					
<b>Database (G:)</b>	0.009	0.007	320.527	453.597	(n/a)
<b>Database (H:)</b>	0.009	0.007	322.871	455.237	(n/a)
<b>Log (Q:)</b>	0.000	0.000	0.000	142.131	16065.848
<b>Log (R:)</b>	0.000	0.000	0.000	140.882	16173.425
<b>Log (S:)</b>	0.000	0.000	0.000	141.704	16187.597

#### Host System Performance

Counter	Average	Minimum	Maximum
<b>% Processor Time</b>	2.510	0.658	3.877
<b>Available MBytes</b>	12317.478	12204.000	13042.000
<b>Free System Page Table Entries</b>	33560115.929	33559315.000	33560517.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	76673887.666	76636160.000	76730368.000
<b>Pool Paged Bytes</b>	168771447.182	168718336.000	168951808.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/2/2010 1:30:19 PM -- Jetstress testing begins ...

3/2/2010 1:30:19 PM -- Prepare testing begins ...

3/2/2010 1:30:50 PM -- Attaching databases ...

3/2/2010 1:30:50 PM -- Prepare testing ends.

3/2/2010 1:30:50 PM -- Dispatching transactions begins ...

3/2/2010 1:30:50 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)

3/2/2010 1:30:50 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)

3/2/2010 1:31:22 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).

3/2/2010 1:31:22 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).

3/2/2010 1:31:27 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.

3/2/2010 1:31:27 PM -- Performance logging begins (interval: 15000 ms).

3/2/2010 1:31:27 PM -- Attaining prerequisites:

3/2/2010 1:33:26 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 765132800.0 (lower bound: 7247757000.0, upper bound: none)

3/2/2010 1:33:26 PM -- Performance logging ends.

3/2/2010 1:33:27 PM -- JetInterop batch transaction stats: 49, 51, 46, 53, 47, 41, 57, 63, 53, 53, 49, 48, 45, 45, 45, 44, 48, 46, 51, 44, 52, 52, 45, 43, 50, 41, 54, 41, 57, and 60.

3/2/2010 1:33:27 PM -- Dispatching transactions ends.

3/2/2010 1:33:27 PM -- Shutting down databases ...

3/2/2010 1:33:31 PM -- Instance4676.1 (complete), Instance4676.2 (complete), Instance4676.3 (complete), Instance4676.4 (complete), Instance4676.5 (complete), Instance4676.6 (complete), Instance4676.7 (complete), Instance4676.8 (complete), Instance4676.9 (complete), Instance4676.10 (complete), Instance4676.11 (complete), Instance4676.12 (complete), Instance4676.13 (complete), Instance4676.14 (complete), Instance4676.15 (complete), Instance4676.16 (complete), Instance4676.17 (complete), Instance4676.18 (complete), Instance4676.19 (complete), Instance4676.20 (complete), Instance4676.21 (complete), Instance4676.22 (complete), Instance4676.23 (complete), Instance4676.24 (complete), Instance4676.25 (complete), Instance4676.26 (complete), Instance4676.27 (complete), Instance4676.28 (complete), Instance4676.29 (complete), and

Instance4676.30 (complete)  
3/2/2010 1:33:32 PM -- Performance logging begins (interval: 30000 ms).  
3/2/2010 1:33:32 PM -- Verifying database checksums ...  
3/2/2010 1:33:40 PM -- F: (0% processed), G: (0% processed), and H: (0% processed)  
3/2/2010 1:33:40 PM -- Verifying log checksums ...  
3/2/2010 1:33:40 PM -- Q:\sg1 (0 logs passed), Q:\sg2 (0 logs passed), Q:\sg3 (0 logs passed), Q:\sg4 (0 logs passed), Q:\sg5 (0 logs passed), Q:\sg6 (0 logs passed), Q:\sg7 (0 logs passed), Q:\sg8 (0 logs passed), Q:\sg9 (0 logs passed), Q:\sg10 (0 logs passed), R:\sg1 (0 logs passed), R:\sg2 (0 logs passed), R:\sg3 (0 logs passed), R:\sg4 (0 logs passed), R:\sg5 (0 logs passed), R:\sg6 (0 logs passed), R:\sg7 (0 logs passed), R:\sg8 (0 logs passed), R:\sg9 (0 logs passed), R:\sg10 (0 logs passed), S:\sg1 (0 logs passed), S:\sg2 (0 logs passed), S:\sg3 (0 logs passed), S:\sg4 (0 logs passed), S:\sg5 (0 logs passed), S:\sg6 (0 logs passed), S:\sg7 (0 logs passed), S:\sg8 (0 logs passed), S:\sg9 (0 logs passed), and S:\sg10 (0 logs passed)  
3/2/2010 1:33:40 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_31\\_22.blg](#) has 7 samples.  
3/2/2010 1:33:40 PM -- Creating test report ...  
3/2/2010 1:33:41 PM -- Volume F: has 0.0104 for Avg. Disk sec/Read.  
3/2/2010 1:33:41 PM -- Volume G: has 0.0104 for Avg. Disk sec/Read.  
3/2/2010 1:33:41 PM -- Volume H: has 0.0100 for Avg. Disk sec/Read.  
3/2/2010 1:33:41 PM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.  
3/2/2010 1:33:41 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
3/2/2010 1:33:41 PM -- Volume R: has 0.0001 for Avg. Disk sec/Write.  
3/2/2010 1:33:41 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
3/2/2010 1:33:41 PM -- Volume S: has 0.0001 for Avg. Disk sec/Write.  
3/2/2010 1:33:41 PM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
3/2/2010 1:33:41 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
3/2/2010 1:33:41 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
3/2/2010 1:33:41 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_31\\_22.xml](#) has 6 samples queried.  
3/2/2010 1:33:41 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_31\\_22.html](#) is saved.  
3/2/2010 1:33:41 PM -- Jetstress testing ends.  
3/2/2010 1:36:00 PM -- Jetstress testing begins ...  
3/2/2010 1:36:00 PM -- Prepare testing begins ...  
3/2/2010 1:36:31 PM -- Attaching databases ...  
3/2/2010 1:36:31 PM -- Prepare testing ends.  
3/2/2010 1:36:31 PM -- Dispatching transactions begins ...  
3/2/2010 1:36:31 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)  
3/2/2010 1:36:31 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)  
3/2/2010 1:37:05 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).  
3/2/2010 1:37:05 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).  
3/2/2010 1:37:10 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.  
3/2/2010 1:37:10 PM -- Performance logging begins (interval: 15000 ms).  
3/2/2010 1:37:10 PM -- Attaining prerequisites:  
3/2/2010 2:23:16 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 7249854000.0 (lower bound: 7247757000.0, upper bound: none)  
3/2/2010 4:23:16 PM -- Performance logging ends.  
3/2/2010 4:25:25 PM -- JetInterop batch transaction stats: 6779, 6633, 6725, 6712, 6583, 6583, 6521, 6807, 6589, 6733, 6616, 6713, 6663, 6665, 6551, 6584, 6706, 6595, 6564, 6656, 6564, 6596, 6702, 6782, 6652, 6628, 6768, 6725, 6683, and 6649.  
3/2/2010 4:25:25 PM -- Dispatching transactions ends.  
3/2/2010 4:25:25 PM -- Shutting down databases ...  
3/2/2010 4:25:32 PM -- Instance4676.1 (complete), Instance4676.2 (complete), Instance4676.3 (complete), Instance4676.4 (complete), Instance4676.5 (complete), Instance4676.6 (complete), Instance4676.7 (complete), Instance4676.8 (complete),

Instance4676.9 (complete), Instance4676.10 (complete), Instance4676.11 (complete), Instance4676.12 (complete), Instance4676.13 (complete), Instance4676.14 (complete), Instance4676.15 (complete), Instance4676.16 (complete), Instance4676.17 (complete), Instance4676.18 (complete), Instance4676.19 (complete), Instance4676.20 (complete), Instance4676.21 (complete), Instance4676.22 (complete), Instance4676.23 (complete), Instance4676.24 (complete), Instance4676.25 (complete), Instance4676.26 (complete), Instance4676.27 (complete), Instance4676.28 (complete), Instance4676.29 (complete), and Instance4676.30 (complete)  
3/2/2010 4:25:33 PM -- Performance logging begins (interval: 30000 ms).  
3/2/2010 4:25:33 PM -- Verifying database checksums ...  
3/2/2010 10:25:10 PM -- F: (100% processed), G: (100% processed), and H: (100% processed)  
3/2/2010 10:25:10 PM -- Performance logging ends.  
3/2/2010 10:25:10 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\DBChecksum\\_2010\\_3\\_2\\_16\\_25\\_32.blg](#) has 718 samples.  
3/2/2010 10:25:19 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\DBChecksum\\_2010\\_3\\_2\\_16\\_25\\_32.html](#) is saved.  
3/2/2010 10:25:19 PM -- Verifying log checksums ...  
3/2/2010 10:25:30 PM -- Q:\sg1 (3 logs passed), Q:\sg2 (2 logs passed), Q:\sg3 (2 logs passed), Q:\sg4 (2 logs passed), Q:\sg5 (2 logs passed), Q:\sg6 (2 logs passed), Q:\sg7 (2 logs passed), Q:\sg8 (2 logs passed), Q:\sg9 (2 logs passed), Q:\sg10 (2 logs passed), R:\sg1 (2 logs passed), R:\sg2 (2 logs passed), R:\sg3 (2 logs passed), R:\sg4 (2 logs passed), R:\sg5 (2 logs passed), R:\sg6 (2 logs passed), R:\sg7 (2 logs passed), R:\sg8 (2 logs passed), R:\sg9 (2 logs passed), R:\sg10 (2 logs passed), S:\sg1 (2 logs passed), S:\sg2 (2 logs passed), S:\sg3 (2 logs passed), S:\sg4 (2 logs passed), S:\sg5 (2 logs passed), S:\sg6 (2 logs passed), S:\sg7 (2 logs passed), S:\sg8 (2 logs passed), S:\sg9 (2 logs passed), and S:\sg10 (2 logs passed)  
3/2/2010 10:25:30 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_37\\_5.blg](#) has 663 samples.  
3/2/2010 10:25:30 PM -- Creating test report ...  
3/2/2010 10:25:44 PM -- Volume F: has 0.0094 for Avg. Disk sec/Read.  
3/2/2010 10:25:44 PM -- Volume G: has 0.0093 for Avg. Disk sec/Read.  
3/2/2010 10:25:44 PM -- Volume H: has 0.0093 for Avg. Disk sec/Read.  
3/2/2010 10:25:44 PM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.  
3/2/2010 10:25:44 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
3/2/2010 10:25:44 PM -- Volume R: has 0.0001 for Avg. Disk sec/Write.  
3/2/2010 10:25:44 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
3/2/2010 10:25:44 PM -- Volume S: has 0.0002 for Avg. Disk sec/Write.  
3/2/2010 10:25:45 PM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
3/2/2010 10:25:45 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
3/2/2010 10:25:45 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
3/2/2010 10:25:45 PM -- [C:\Exchange\24k\\_25-512-8krecord\2hr-perf\Performance\\_2010\\_3\\_2\\_13\\_37\\_5.xml](#) has 478 samples queried.

## Microsoft Exchange Server **Jetstress**

### ***Stress Test Result Report - isv-4150a***

Test Summary

**Overall Test**     **Pass**

**Result**

**Machine Name** ISV-4150A

**Test**

**Description**

**Test Start Time** 3/8/2010 5:07:24 PM

**Test End Time** 3/9/2010 11:06:00 PM  
**Jetstress Version** 08.02.0060.000  
**Ese Version** 08.02.0176.000  
**Operating System** Windows Server (R) 2008 Enterprise Service Pack 2 (6.0.6002.131072)  
**Performance Log** [C:\Exchange\24k .25-512-8krecord\24stress\Stress\\_2010\\_3\\_8\\_17\\_8\\_28.blg](C:\Exchange\24k .25-512-8krecord\24stress\Stress_2010_3_8_17_8_28.blg)  
[C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum\\_2010\\_3\\_9\\_23\\_6\\_0.blg](C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum_2010_3_9_23_6_0.blg)

**Database Sizing and Throughput**  
**Achieved I/O per Second** 1858.134  
**Target I/O per Second** 1920  
**Initial database size** 3351973429248  
**Final database size** 3423219712000  
**Database files (count)** 30

Jetstress System Parameters

**Thread count** 2 (per-storage group)  
**Log buffers** 9000  
**Minimum database cache** 960.0 MB  
**Maximum database cache** 7680.0 MB  
**Insert operations** 25%  
**Delete operations** 10%  
**Replace operations** 50%  
**Read operations** 15%  
**Lazy commits** 80%

Disk Subsystem Performance

LogicalDisk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
Database (F:)	0.012	0.007	265.931	353.437	(n/a)
Database (G:)	0.012	0.007	266.247	353.648	(n/a)
Database (H:)	0.012	0.007	266.226	352.645	(n/a)
Log (Q:)	0.000	0.000	0.000	109.013	15785.089
Log (R:)	0.000	0.000	0.000	109.095	15822.159
Log (S:)	0.000	0.000	0.000	108.629	15878.925

Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	2.253	0.064	8.112

<b>Available MBytes</b>	22348.300	22187.000	23156.000
<b>Free System Page Table Entries</b>	33559185.552	33557836.000	33560243.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	70351564.853	69238784.000	70991872.000
<b>Pool Paged Bytes</b>	140097808.426	137932800.000	188493824.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/8/2010 5:07:24 PM -- Jetstress testing begins ...  
3/8/2010 5:07:24 PM -- Prepare testing begins ...  
3/8/2010 5:07:55 PM -- Attaching databases ...  
3/8/2010 5:07:55 PM -- Prepare testing ends.  
3/8/2010 5:07:55 PM -- Dispatching transactions begins ...  
3/8/2010 5:07:55 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)  
3/8/2010 5:07:55 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)  
3/8/2010 5:08:28 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.1 seconds/read).  
3/8/2010 5:08:28 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.1 seconds/write).  
3/8/2010 5:08:33 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.  
3/8/2010 5:08:33 PM -- Performance logging begins (interval: 15000 ms).  
3/8/2010 5:08:33 PM -- Attaining prerequisites:  
3/8/2010 5:49:07 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 7248806000.0 (lower bound: 7247757000.0, upper bound: none)  
3/9/2010 5:49:08 PM -- Performance logging ends.  
3/9/2010 11:05:52 PM -- JetInterop batch transaction stats: 57948, 57737, 57990, 57809, 57889, 58173, 57873, 57706, 58319, 57856, 57714, 58183, 57817, 58041, 58307, 57895, 57904, 58109, 57993, 58019, 57781, 58181, 58116, 58167, 58188, 58256, 57992, 57788, 57633, and 57932.  
3/9/2010 11:05:54 PM -- Dispatching transactions ends.  
3/9/2010 11:05:54 PM -- Shutting down databases ...  
3/9/2010 11:06:00 PM -- Instance3892.1 (complete), Instance3892.2 (complete), Instance3892.3 (complete), Instance3892.4 (complete), Instance3892.5 (complete), Instance3892.6 (complete), Instance3892.7 (complete), Instance3892.8 (complete), Instance3892.9 (complete), Instance3892.10 (complete), Instance3892.11 (complete), Instance3892.12 (complete), Instance3892.13 (complete), Instance3892.14 (complete), Instance3892.15 (complete), Instance3892.16 (complete), Instance3892.17 (complete), Instance3892.18 (complete), Instance3892.19 (complete), Instance3892.20 (complete), Instance3892.21 (complete), Instance3892.22 (complete), Instance3892.23 (complete), Instance3892.24 (complete), Instance3892.25 (complete), Instance3892.26 (complete), Instance3892.27 (complete), Instance3892.28 (complete), Instance3892.29 (complete), and Instance3892.30 (complete)  
3/9/2010 11:06:01 PM -- Performance logging begins (interval: 30000 ms).  
3/9/2010 11:06:01 PM -- Verifying database checksums ...  
3/10/2010 8:13:15 AM -- F: (100% processed), G: (100% processed), and H: (100% processed)  
3/10/2010 8:13:15 AM -- Performance logging ends.  
3/10/2010 8:13:15 AM -- [C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum 2010 3 9 23 6 0.blg](#) has 1093 samples.  
3/10/2010 8:13:29 AM -- [C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum 2010 3 9 23 6 0.html](#) is saved.  
3/10/2010 8:13:29 AM -- Verifying log checksums ...  
3/10/2010 8:13:41 AM -- Q:\sg1 (2 logs passed), Q:\sg2 (2 logs passed), Q:\sg3 (2 logs passed), Q:\sg4 (2 logs passed), Q:\sg5 (2 logs passed), Q:\sg6 (2 logs passed), Q:\sg7 (2 logs passed), Q:\sg8 (2 logs passed), Q:\sg9 (2 logs passed), Q:\sg10 (2 logs passed), R:\sg1

(2 logs passed), R:\sg2 (2 logs passed), R:\sg3 (2 logs passed), R:\sg4 (2 logs passed), R:\sg5 (2 logs passed), R:\sg6 (2 logs passed), R:\sg7 (2 logs passed), R:\sg8 (2 logs passed), R:\sg9 (2 logs passed), R:\sg10 (2 logs passed), S:\sg1 (2 logs passed), S:\sg2 (2 logs passed), S:\sg3 (2 logs passed), S:\sg4 (2 logs passed), S:\sg5 (2 logs passed), S:\sg6 (2 logs passed), S:\sg7 (2 logs passed), S:\sg8 (2 logs passed), S:\sg9 (2 logs passed), and S:\sg10 (2 logs passed)

3/10/2010 8:13:41 AM -- [C:\Exchange\24k .25-512-](#)

[8krecord\24stress\Stress\\_2010\\_3\\_8\\_17\\_8\\_28.blg](#) has 5913 samples.

3/10/2010 8:13:41 AM -- Creating test report ...

3/10/2010 8:15:26 AM -- Volume F: has 0.0118 for Avg. Disk sec/Read.

3/10/2010 8:15:26 AM -- Volume G: has 0.0120 for Avg. Disk sec/Read.

3/10/2010 8:15:26 AM -- Volume H: has 0.0120 for Avg. Disk sec/Read.

3/10/2010 8:15:26 AM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.

3/10/2010 8:15:26 AM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.

3/10/2010 8:15:26 AM -- Volume R: has 0.0001 for Avg. Disk sec/Write.

3/10/2010 8:15:26 AM -- Volume R: has 0.0000 for Avg. Disk sec/Read.

3/10/2010 8:15:26 AM -- Volume S: has 0.0002 for Avg. Disk sec/Write.

3/10/2010 8:15:26 AM -- Volume S: has 0.0000 for Avg. Disk sec/Read.

3/10/2010 8:15:26 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.

3/10/2010 8:15:26 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.

3/10/2010 8:15:26 AM -- [C:\Exchange\24k .25-512-](#)

[8krecord\24stress\Stress\\_2010\\_3\\_8\\_17\\_8\\_28.xml](#) has 5750 samples queried.

## Microsoft Exchange Server **Jetstress**

### ***Stress Test Result Report - isv-4150b***

Test Summary

**Overall Test**     **Pass**

**Result**

**Machine Name**    ISV-4150B

**Test**

**Description**

**Test Start**        3/8/2010 5:07:26 PM

**Time**

**Test End Time**    3/9/2010 11:05:37 PM

**Jetstress**         08.02.0060.000

**Version**

**Ese Version**      08.02.0176.000

**Operating System**    Windows Server (R) 2008 Enterprise Service Pack 1  
(6.0.6001.65536)

**Performance**      [C:\Exchange\24k .25-512-](#)

**Log**                 [8krecord\24stress\Stress\\_2010\\_3\\_8\\_17\\_8\\_29.blg](#)

[C:\Exchange\24k .25-512-](#)

[8krecord\24stress\DBChecksum\\_2010\\_3\\_9\\_23\\_5\\_37.blg](#)

Database Sizing and Throughput

**Achieved I/O per Second**    1863.015

**Target I/O per Second**      1920

**Initial database size**        3355827994624

**Final database size**         3428038967296

**Database files (count)** 30

Jetstress System Parameters

**Thread count** 2 (per-storage group)  
**Log buffers** 9000  
**Minimum database cache** 960.0 MB  
**Maximum database cache** 7680.0 MB  
**Insert operations** 25%  
**Delete operations** 10%  
**Replace operations** 50%  
**Read operations** 15%  
**Lazy commits** 80%

Disk Subsystem Performance

LogicalDisk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
<b>Database (F:)</b>	0.012	0.007	267.543	355.166	(n/a)
<b>Database (G:)</b>	0.012	0.007	266.829	353.590	(n/a)
<b>Database (H:)</b>	0.012	0.007	266.836	353.051	(n/a)
<b>Log (Q:)</b>	0.000	0.000	0.000	110.122	15828.801
<b>Log (R:)</b>	0.000	0.000	0.000	109.593	15899.331
<b>Log (S:)</b>	0.000	0.000	0.000	109.094	15973.096

Host System Performance

Counter	Average	Minimum	Maximum
<b>% Processor Time</b>	1.914	0.115	6.410
<b>Available MBytes</b>	10603.150	10414.000	11394.000
<b>Free System Page Table Entries</b>	33559636.162	33557826.000	33560899.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	64861328.760	63733760.000	65695744.000
<b>Pool Paged Bytes</b>	129726327.609	127897600.000	159150080.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/8/2010 5:07:26 PM -- Jetstress testing begins ...

3/8/2010 5:07:26 PM -- Prepare testing begins ...

3/8/2010 5:07:57 PM -- Attaching databases ...

3/8/2010 5:07:57 PM -- Prepare testing ends.

3/8/2010 5:07:57 PM -- Dispatching transactions begins ...

3/8/2010 5:07:57 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)

3/8/2010 5:07:57 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)

3/8/2010 5:08:29 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.1 seconds/read).

3/8/2010 5:08:29 PM -- Log write latency thresholds: (average: 0.01 seconds/write,

maximum: 0.1 seconds/write).  
 3/8/2010 5:08:32 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.  
 3/8/2010 5:08:32 PM -- Performance logging begins (interval: 15000 ms).  
 3/8/2010 5:08:32 PM -- Attaining prerequisites:  
 3/8/2010 5:50:23 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 7248470000.0 (lower bound: 7247757000.0, upper bound: none)  
 3/9/2010 5:50:24 PM -- Performance logging ends.  
 3/9/2010 11:05:29 PM -- JetInterop batch transaction stats: 59184, 58722, 58614, 58664, 58665, 58484, 58795, 58960, 58543, 58303, 58356, 58664, 58572, 58692, 58564, 58416, 59031, 58406, 58813, 58903, 58996, 58747, 58748, 58630, 58950, 58285, 58869, 58380, 58690, and 58859.  
 3/9/2010 11:05:30 PM -- Dispatching transactions ends.  
 3/9/2010 11:05:30 PM -- Shutting down databases ...  
 3/9/2010 11:05:37 PM -- Instance2204.1 (complete), Instance2204.2 (complete), Instance2204.3 (complete), Instance2204.4 (complete), Instance2204.5 (complete), Instance2204.6 (complete), Instance2204.7 (complete), Instance2204.8 (complete), Instance2204.9 (complete), Instance2204.10 (complete), Instance2204.11 (complete), Instance2204.12 (complete), Instance2204.13 (complete), Instance2204.14 (complete), Instance2204.15 (complete), Instance2204.16 (complete), Instance2204.17 (complete), Instance2204.18 (complete), Instance2204.19 (complete), Instance2204.20 (complete), Instance2204.21 (complete), Instance2204.22 (complete), Instance2204.23 (complete), Instance2204.24 (complete), Instance2204.25 (complete), Instance2204.26 (complete), Instance2204.27 (complete), Instance2204.28 (complete), Instance2204.29 (complete), and Instance2204.30 (complete)  
 3/9/2010 11:05:37 PM -- Performance logging begins (interval: 30000 ms).  
 3/9/2010 11:05:37 PM -- Verifying database checksums ...  
 3/10/2010 8:14:01 AM -- F: (100% processed), G: (100% processed), and H: (100% processed)  
 3/10/2010 8:14:01 AM -- Performance logging ends.  
 3/10/2010 8:14:01 AM -- [C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum 2010 3 9 23 5 37.blg](#) has 1096 samples.  
 3/10/2010 8:14:11 AM -- [C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum 2010 3 9 23 5 37.html](#) is saved.  
 3/10/2010 8:14:11 AM -- Verifying log checksums ...  
 3/10/2010 8:14:21 AM -- Q:\sg1 (2 logs passed), Q:\sg2 (2 logs passed), Q:\sg3 (2 logs passed), Q:\sg4 (2 logs passed), Q:\sg5 (2 logs passed), Q:\sg6 (2 logs passed), Q:\sg7 (2 logs passed), Q:\sg8 (2 logs passed), Q:\sg9 (2 logs passed), Q:\sg10 (2 logs passed), R:\sg1 (2 logs passed), R:\sg2 (3 logs passed), R:\sg3 (2 logs passed), R:\sg4 (2 logs passed), R:\sg5 (2 logs passed), R:\sg6 (2 logs passed), R:\sg7 (2 logs passed), R:\sg8 (2 logs passed), R:\sg9 (2 logs passed), R:\sg10 (2 logs passed), S:\sg1 (2 logs passed), S:\sg2 (2 logs passed), S:\sg3 (2 logs passed), S:\sg4 (2 logs passed), S:\sg5 (2 logs passed), S:\sg6 (2 logs passed), S:\sg7 (2 logs passed), S:\sg8 (2 logs passed), S:\sg9 (2 logs passed), and S:\sg10 (2 logs passed)  
 3/10/2010 8:14:21 AM -- [C:\Exchange\24k .25-512-8krecord\24stress\Stress 2010 3 8 17 8 29.blg](#) has 5918 samples.  
 3/10/2010 8:14:21 AM -- Creating test report ...  
 3/10/2010 8:15:25 AM -- Volume F: has 0.0118 for Avg. Disk sec/Read.  
 3/10/2010 8:15:25 AM -- Volume G: has 0.0117 for Avg. Disk sec/Read.  
 3/10/2010 8:15:25 AM -- Volume H: has 0.0117 for Avg. Disk sec/Read.  
 3/10/2010 8:15:25 AM -- Volume Q: has 0.0003 for Avg. Disk sec/Write.  
 3/10/2010 8:15:25 AM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
 3/10/2010 8:15:25 AM -- Volume R: has 0.0003 for Avg. Disk sec/Write.  
 3/10/2010 8:15:25 AM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
 3/10/2010 8:15:25 AM -- Volume S: has 0.0004 for Avg. Disk sec/Write.  
 3/10/2010 8:15:25 AM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
 3/10/2010 8:15:25 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
 3/10/2010 8:15:25 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
 3/10/2010 8:15:25 AM -- [C:\Exchange\24k .25-512-](#)

[8krecord\24stress\Stress\\_2010\\_3\\_8\\_17\\_8\\_29.xml](#) has 5750 samples queried.

## Microsoft Exchange Server **Jetstress**

### **Stress Test Result Report - isv-4150c**

Test Summary

**Overall Test Result** **Pass**

**Machine Name** ISV-4150B

**Test Description**

**Test Start Time** 3/8/2010 5:07:26 PM

**Test End Time** 3/9/2010 11:05:37 PM

**Jetstress Version** 08.02.0060.000

**Ese Version** 08.02.0176.000

**Operating System** Windows Server (R) 2008 Enterprise Service Pack 1 (6.0.6001.65536)

**Performance Log** [C:\Exchange\24k\\_25-512-8krecord\24stress\Stress\\_2010\\_3\\_8\\_17\\_8\\_29.blg](#)  
[C:\Exchange\24k\\_25-512-8krecord\24stress\DBChecksum\\_2010\\_3\\_9\\_23\\_5\\_37.blg](#)

Database Sizing and Throughput

**Achieved I/O per Second** 1863.015

**Target I/O per Second** 1920

**Initial database size** 3355827994624

**Final database size** 3428038967296

**Database files (count)** 30

Jetstress System Parameters

**Thread count** 2 (per-storage group)

**Log buffers** 9000

**Minimum database cache** 960.0 MB

**Maximum database cache** 7680.0 MB

**Insert operations** 25%

**Delete operations** 10%

**Replace operations** 50%

**Read operations** 15%

**Lazy commits** 80%

Disk Subsystem Performance

<b>LogicalDisk</b>	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
--------------------	--------------------	---------------------	----------------	-----------------	-----------------------

<b>Database (F:)</b>	0.012	0.007	267.543	355.166	(n/a)
<b>Database (G:)</b>	0.012	0.007	266.829	353.590	(n/a)
<b>Database (H:)</b>	0.012	0.007	266.836	353.051	(n/a)
<b>Log (Q:)</b>	0.000	0.000	0.000	110.122	15828.801
<b>Log (R:)</b>	0.000	0.000	0.000	109.593	15899.331
<b>Log (S:)</b>	0.000	0.000	0.000	109.094	15973.096

#### Host System Performance

Counter	Average	Minimum	Maximum
<b>% Processor Time</b>	1.914	0.115	6.410
<b>Available MBytes</b>	10603.150	10414.000	11394.000
<b>Free System Page Table Entries</b>	33559636.162	33557826.000	33560899.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	64861328.760	63733760.000	65695744.000
<b>Pool Paged Bytes</b>	129726327.609	127897600.000	159150080.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/8/2010 5:07:26 PM -- Jetstress testing begins ...

3/8/2010 5:07:26 PM -- Prepare testing begins ...

3/8/2010 5:07:57 PM -- Attaching databases ...

3/8/2010 5:07:57 PM -- Prepare testing ends.

3/8/2010 5:07:57 PM -- Dispatching transactions begins ...

3/8/2010 5:07:57 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)

3/8/2010 5:07:57 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)

3/8/2010 5:08:29 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.1 seconds/read).

3/8/2010 5:08:29 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.1 seconds/write).

3/8/2010 5:08:32 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.

3/8/2010 5:08:32 PM -- Performance logging begins (interval: 15000 ms).

3/8/2010 5:08:32 PM -- Attaining prerequisites:

3/8/2010 5:50:23 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 7248470000.0 (lower bound: 7247757000.0, upper bound: none)

3/9/2010 5:50:24 PM -- Performance logging ends.

3/9/2010 11:05:29 PM -- JetInterop batch transaction stats: 59184, 58722, 58614, 58664, 58665, 58484, 58795, 58960, 58543, 58303, 58356, 58664, 58572, 58692, 58564, 58416, 59031, 58406, 58813, 58903, 58996, 58747, 58748, 58630, 58950, 58285, 58869, 58380, 58690, and 58859.

3/9/2010 11:05:30 PM -- Dispatching transactions ends.

3/9/2010 11:05:30 PM -- Shutting down databases ...

3/9/2010 11:05:37 PM -- Instance2204.1 (complete), Instance2204.2 (complete), Instance2204.3 (complete), Instance2204.4 (complete), Instance2204.5 (complete), Instance2204.6 (complete), Instance2204.7 (complete), Instance2204.8 (complete), Instance2204.9 (complete), Instance2204.10 (complete), Instance2204.11 (complete), Instance2204.12 (complete), Instance2204.13 (complete), Instance2204.14 (complete), Instance2204.15 (complete), Instance2204.16 (complete), Instance2204.17 (complete), Instance2204.18 (complete), Instance2204.19 (complete), Instance2204.20 (complete),

Instance2204.21 (complete), Instance2204.22 (complete), Instance2204.23 (complete), Instance2204.24 (complete), Instance2204.25 (complete), Instance2204.26 (complete), Instance2204.27 (complete), Instance2204.28 (complete), Instance2204.29 (complete), and Instance2204.30 (complete)

3/9/2010 11:05:37 PM -- Performance logging begins (interval: 30000 ms).

3/9/2010 11:05:37 PM -- Verifying database checksums ...

3/10/2010 8:14:01 AM -- F: (100% processed), G: (100% processed), and H: (100% processed)

3/10/2010 8:14:01 AM -- Performance logging ends.

3/10/2010 8:14:01 AM -- <C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum 2010 3 9 23 5 37.blg> has 1096 samples.

3/10/2010 8:14:11 AM -- <C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum 2010 3 9 23 5 37.html> is saved.

3/10/2010 8:14:11 AM -- Verifying log checksums ...

3/10/2010 8:14:21 AM -- Q:\sg1 (2 logs passed), Q:\sg2 (2 logs passed), Q:\sg3 (2 logs passed), Q:\sg4 (2 logs passed), Q:\sg5 (2 logs passed), Q:\sg6 (2 logs passed), Q:\sg7 (2 logs passed), Q:\sg8 (2 logs passed), Q:\sg9 (2 logs passed), Q:\sg10 (2 logs passed), R:\sg1 (2 logs passed), R:\sg2 (3 logs passed), R:\sg3 (2 logs passed), R:\sg4 (2 logs passed), R:\sg5 (2 logs passed), R:\sg6 (2 logs passed), R:\sg7 (2 logs passed), R:\sg8 (2 logs passed), R:\sg9 (2 logs passed), R:\sg10 (2 logs passed), S:\sg1 (2 logs passed), S:\sg2 (2 logs passed), S:\sg3 (2 logs passed), S:\sg4 (2 logs passed), S:\sg5 (2 logs passed), S:\sg6 (2 logs passed), S:\sg7 (2 logs passed), S:\sg8 (2 logs passed), S:\sg9 (2 logs passed), and S:\sg10 (2 logs passed)

3/10/2010 8:14:21 AM -- <C:\Exchange\24k .25-512-8krecord\24stress\Stress 2010 3 8 17 8 29.blg> has 5918 samples.

3/10/2010 8:14:21 AM -- Creating test report ...

3/10/2010 8:15:25 AM -- Volume F: has 0.0118 for Avg. Disk sec/Read.

3/10/2010 8:15:25 AM -- Volume G: has 0.0117 for Avg. Disk sec/Read.

3/10/2010 8:15:25 AM -- Volume H: has 0.0117 for Avg. Disk sec/Read.

3/10/2010 8:15:25 AM -- Volume Q: has 0.0003 for Avg. Disk sec/Write.

3/10/2010 8:15:25 AM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.

3/10/2010 8:15:25 AM -- Volume R: has 0.0003 for Avg. Disk sec/Write.

3/10/2010 8:15:25 AM -- Volume R: has 0.0000 for Avg. Disk sec/Read.

3/10/2010 8:15:25 AM -- Volume S: has 0.0004 for Avg. Disk sec/Write.

3/10/2010 8:15:25 AM -- Volume S: has 0.0000 for Avg. Disk sec/Read.

3/10/2010 8:15:25 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.

3/10/2010 8:15:25 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.

3/10/2010 8:15:25 AM -- <C:\Exchange\24k .25-512-8krecord\24stress\Stress 2010 3 8 17 8 29.xml> has 5750 samples queried.

## Microsoft Exchange Server **Jetstress**

### ***Stress Test Result Report - isv-4150d***

Test Summary

**Overall Test**     **Pass**

**Result**

**Machine Name** ISV-4150D

**Test**

**Description**

**Test Start Time**     3/8/2010 5:07:21 PM

**Test End Time**     3/9/2010 11:06:37 PM

**Jetstress**     08.02.0060.000

**Version**

**Ese Version** 08.02.0176.000  
**Operating System** Windows Server (R) 2008 Enterprise Service Pack 2 (6.0.6002.131072)  
**Performance Log** [C:\Exchange\24k\\_.25-512-8krecord\24stress\Stress\\_2010\\_3\\_8\\_17\\_8\\_25.blg](C:\Exchange\24k_.25-512-8krecord\24stress\Stress_2010_3_8_17_8_25.blg)  
[C:\Exchange\24k\\_.25-512-8krecord\24stress\DBChecksum\\_2010\\_3\\_9\\_23\\_6\\_37.blg](C:\Exchange\24k_.25-512-8krecord\24stress\DBChecksum_2010_3_9_23_6_37.blg)

#### Database Sizing and Throughput

**Achieved I/O per Second** 1880.554  
**Target I/O per Second** 1920  
**Initial database size** 3356920610816  
**Final database size** 3429420990464  
**Database files (count)** 30

#### Jetstress System Parameters

**Thread count** 2 (per-storage group)  
**Log buffers** 9000  
**Minimum database cache** 960.0 MB  
**Maximum database cache** 7680.0 MB  
**Insert operations** 25%  
**Delete operations** 10%  
**Replace operations** 50%  
**Read operations** 15%  
**Lazy commits** 80%

#### Disk Subsystem Performance

LogicalDisk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
Database (F:)	0.013	0.008	269.466	358.951	(n/a)
Database (G:)	0.013	0.007	268.804	356.204	(n/a)
Database (H:)	0.013	0.008	269.694	357.435	(n/a)
Log (Q:)	0.000	0.000	0.000	111.453	15766.825
Log (R:)	0.000	0.000	0.000	110.505	15857.604
Log (S:)	0.000	0.000	0.000	110.620	15893.550

#### Host System Performance

Counter	Average	Minimum	Maximum
% Processor Time	2.053	0.000	8.527
Available MBytes	12488.179	12357.000	13316.000
Free System Page Table Entries	33559171.577	33557956.000	33560451.000
Transition Pages	0.000	0.000	0.000

**RePurposed/sec**

<b>Pool Nonpaged Bytes</b>	69169272.345	68141056.000	69824512.000
<b>Pool Paged Bytes</b>	146920096.223	145022976.000	148602880.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/8/2010 5:07:21 PM -- Jetstress testing begins ...

3/8/2010 5:07:21 PM -- Prepare testing begins ...

3/8/2010 5:07:53 PM -- Attaching databases ...

3/8/2010 5:07:53 PM -- Prepare testing ends.

3/8/2010 5:07:53 PM -- Dispatching transactions begins ...

3/8/2010 5:07:53 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)

3/8/2010 5:07:53 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)

3/8/2010 5:08:25 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.1 seconds/read).

3/8/2010 5:08:25 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.1 seconds/write).

3/8/2010 5:08:30 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.

3/8/2010 5:08:30 PM -- Performance logging begins (interval: 15000 ms).

3/8/2010 5:08:30 PM -- Attaining prerequisites:

3/8/2010 5:50:16 PM -- \MSEExchange Database(JetstressWin)\Database Cache Size, Last: 7250043000.0 (lower bound: 7247757000.0, upper bound: none)

3/9/2010 5:50:16 PM -- Performance logging ends.

3/9/2010 11:06:25 PM -- JetInterop batch transaction stats: 58963, 59371, 59005, 58883, 58895, 58828, 59157, 58753, 59088, 59350, 59032, 58788, 59064, 58974, 58763, 58724, 58795, 58992, 58884, 59220, 58744, 58930, 59254, 59457, 59232, 59093, 58664, 59447, 59013, and 59070.

3/9/2010 11:06:27 PM -- Dispatching transactions ends.

3/9/2010 11:06:27 PM -- Shutting down databases ...

3/9/2010 11:06:37 PM -- Instance3832.1 (complete), Instance3832.2 (complete), Instance3832.3 (complete), Instance3832.4 (complete), Instance3832.5 (complete), Instance3832.6 (complete), Instance3832.7 (complete), Instance3832.8 (complete), Instance3832.9 (complete), Instance3832.10 (complete), Instance3832.11 (complete), Instance3832.12 (complete), Instance3832.13 (complete), Instance3832.14 (complete), Instance3832.15 (complete), Instance3832.16 (complete), Instance3832.17 (complete), Instance3832.18 (complete), Instance3832.19 (complete), Instance3832.20 (complete), Instance3832.21 (complete), Instance3832.22 (complete), Instance3832.23 (complete), Instance3832.24 (complete), Instance3832.25 (complete), Instance3832.26 (complete), Instance3832.27 (complete), Instance3832.28 (complete), Instance3832.29 (complete), and Instance3832.30 (complete)

3/9/2010 11:06:37 PM -- Performance logging begins (interval: 30000 ms).

3/9/2010 11:06:37 PM -- Verifying database checksums ...

3/10/2010 8:11:01 AM -- F: (100% processed), G: (100% processed), and H: (100% processed)

3/10/2010 8:11:01 AM -- Performance logging ends.

3/10/2010 8:11:01 AM -- <C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum 2010 3 9 23 6 37.blg> has 1088 samples.

3/10/2010 8:11:18 AM -- <C:\Exchange\24k .25-512-8krecord\24stress\DBChecksum 2010 3 9 23 6 37.html> is saved.

3/10/2010 8:11:18 AM -- Verifying log checksums ...

3/10/2010 8:11:29 AM -- Q:\sg1 (2 logs passed), Q:\sg2 (2 logs passed), Q:\sg3 (3 logs passed), Q:\sg4 (2 logs passed), Q:\sg5 (2 logs passed), Q:\sg6 (2 logs passed), Q:\sg7 (2 logs passed), Q:\sg8 (2 logs passed), Q:\sg9 (2 logs passed), Q:\sg10 (2 logs passed), R:\sg1 (2 logs passed), R:\sg2 (2 logs passed), R:\sg3 (2 logs passed), R:\sg4 (2 logs passed), R:\sg5 (2 logs passed), R:\sg6 (2 logs passed), R:\sg7 (2 logs passed), R:\sg8 (2 logs passed), R:\sg9 (2 logs passed), R:\sg10 (2 logs passed), S:\sg1 (2 logs passed), S:\sg2 (2 logs passed), S:\sg3 (2 logs passed), S:\sg4 (2 logs passed), S:\sg5 (2 logs passed), S:\sg6

(2 logs passed), S:\sg7 (2 logs passed), S:\sg8 (2 logs passed), S:\sg9 (2 logs passed), and S:\sg10 (2 logs passed)

3/10/2010 8:11:29 AM -- [C:\Exchange\24k\\_25-512-8krecord\24stress\Stress\\_2010\\_3\\_8\\_17\\_8\\_25.blq](#) has 5918 samples.  
 3/10/2010 8:11:29 AM -- Creating test report ...  
 3/10/2010 8:13:18 AM -- Volume F: has 0.0134 for Avg. Disk sec/Read.  
 3/10/2010 8:13:18 AM -- Volume G: has 0.0131 for Avg. Disk sec/Read.  
 3/10/2010 8:13:18 AM -- Volume H: has 0.0131 for Avg. Disk sec/Read.  
 3/10/2010 8:13:18 AM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.  
 3/10/2010 8:13:18 AM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
 3/10/2010 8:13:19 AM -- Volume R: has 0.0001 for Avg. Disk sec/Write.  
 3/10/2010 8:13:19 AM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
 3/10/2010 8:13:19 AM -- Volume S: has 0.0001 for Avg. Disk sec/Write.  
 3/10/2010 8:13:19 AM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
 3/10/2010 8:13:19 AM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
 3/10/2010 8:13:19 AM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
 3/10/2010 8:13:19 AM -- [C:\Exchange\24k\\_25-512-8krecord\24stress\Stress\\_2010\\_3\\_8\\_17\\_8\\_25.xml](#) has 5751 samples queried.

## Microsoft Exchange Server **Jetstress**

### **SoftRecovery Test Result Report - isv-4150a**

Soft-Recovery Statistics - All

Database Instance	Log files replayed	Elapsed seconds
<b>Instance612.1</b>	522	1389.9221097
<b>Instance612.2</b>	527	1392.0437233
<b>Instance612.3</b>	527	1392.0437233
<b>Instance612.4</b>	509	1374.0100077
<b>Instance612.5</b>	514	1367.3799652
<b>Instance612.6</b>	509	1374.0100077
<b>Instance612.7</b>	528	1387.004891
<b>Instance612.8</b>	524	1387.2700927
<b>Instance612.9</b>	506	1370.8275873
<b>Instance612.10</b>	519	1380.6400502
<b>Instance612.11</b>	507	1391.5133199
<b>Instance612.12</b>	511	1391.5133199
<b>Instance612.13</b>	525	1396.5521522
<b>Instance612.14</b>	514	1397.612959
<b>Instance612.15</b>	519	1399.4693709
<b>Instance612.16</b>	525	1393.9001352
<b>Instance612.17</b>	525	1401.8561862
<b>Instance612.18</b>	518	1396.8173539
<b>Instance612.19</b>	525	1399.9997743
<b>Instance612.20</b>	530	1399.4693709
<b>Instance612.21</b>	529	1394.960942
<b>Instance612.22</b>	539	1398.9389675
<b>Instance612.23</b>	523	1397.3477573

<b>Instance612.24</b>	522	1385.9440842
<b>Instance612.25</b>	523	1397.612959
<b>Instance612.26</b>	500	1365.788755
<b>Instance612.27</b>	538	1397.0825556
<b>Instance612.28</b>	512	1375.0708145
<b>Instance612.29</b>	503	1370.2971839
<b>Instance612.30</b>	510	1372.9492009

#### Disk Subsystem Performance

<b>LogicalDisk</b>	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
<b>Database (F:)</b>	0.125	0.037	969.279	34.356	(n/a)
<b>Database (G:)</b>	0.116	0.052	996.265	34.471	(n/a)
<b>Database (H:)</b>	0.142	0.023	975.949	34.459	(n/a)
<b>Log (Q:)</b>	0.009	0.000	122.536	0.182	98.173
<b>Log (R:)</b>	0.011	0.000	122.828	0.148	62.681
<b>Log (S:)</b>	0.010	0.000	122.890	0.179	105.147

#### Host System Performance

<b>Counter</b>	Average	Minimum	Maximum
<b>% Processor Time</b>	4.388	0.533	42.781
<b>Available MBytes</b>	23431.363	21860.000	29821.000
<b>Free System Page Table Entries</b>	33560941.772	33560626.000	33561056.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	76188515.597	73326592.000	77144064.000
<b>Pool Paged Bytes</b>	151635265.660	150204416.000	151744512.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/4/2010 9:51:22 PM -- Jetstress testing begins ...

3/4/2010 9:51:22 PM -- Prepare testing begins ...

3/4/2010 9:51:53 PM -- Attaching databases ...

3/4/2010 9:51:53 PM -- Prepare testing ends.

3/4/2010 9:51:53 PM -- Dispatching transactions begins ...

3/4/2010 9:51:53 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)

3/4/2010 9:51:53 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)

3/4/2010 9:52:26 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).

3/4/2010 9:52:26 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).

3/4/2010 9:52:30 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.

3/4/2010 9:52:30 PM -- Performance logging begins (interval: 15000 ms).

3/4/2010 9:52:30 PM -- Generating log files ...

3/4/2010 11:39:23 PM -- Q:\sg1 (104.6% generated), Q:\sg2 (105.6% generated), Q:\sg3

(105.6% generated), Q:\sg4 (102.0% generated), Q:\sg5 (103.0% generated), Q:\sg6 (102.0% generated), Q:\sg7 (105.8% generated), Q:\sg8 (105.0% generated), Q:\sg9 (101.4% generated), Q:\sg10 (104.0% generated), R:\sg1 (101.6% generated), R:\sg2 (102.4% generated), R:\sg3 (105.2% generated), R:\sg4 (103.0% generated), R:\sg5 (104.0% generated), R:\sg6 (105.2% generated), R:\sg7 (105.2% generated), R:\sg8 (103.8% generated), R:\sg9 (105.2% generated), R:\sg10 (106.2% generated), S:\sg1 (106.0% generated), S:\sg2 (107.8% generated), S:\sg3 (104.8% generated), S:\sg4 (104.6% generated), S:\sg5 (104.8% generated), S:\sg6 (100.2% generated), S:\sg7 (107.8% generated), S:\sg8 (102.6% generated), S:\sg9 (100.8% generated), and S:\sg10 (102.2% generated)

3/4/2010 11:39:23 PM -- Performance logging ends.

3/4/2010 11:39:23 PM -- JetInterop batch transaction stats: 3682, 3655, 3685, 3602, 3610, 3598, 3697, 3665, 3564, 3627, 3542, 3568, 3664, 3594, 3669, 3652, 3606, 3639, 3694, 3742, 3686, 3737, 3636, 3668, 3665, 3495, 3746, 3515, 3531, and 3600.

3/4/2010 11:39:23 PM -- Dispatching transactions ends.

3/4/2010 11:39:23 PM -- Shutting down databases ...

3/4/2010 11:39:29 PM -- Instance612.1 (complete), Instance612.2 (complete), Instance612.3 (complete), Instance612.4 (complete), Instance612.5 (complete), Instance612.6 (complete), Instance612.7 (complete), Instance612.8 (complete), Instance612.9 (complete), Instance612.10 (complete), Instance612.11 (complete), Instance612.12 (complete), Instance612.13 (complete), Instance612.14 (complete), Instance612.15 (complete), Instance612.16 (complete), Instance612.17 (complete), Instance612.18 (complete), Instance612.19 (complete), Instance612.20 (complete), Instance612.21 (complete), Instance612.22 (complete), Instance612.23 (complete), Instance612.24 (complete), Instance612.25 (complete), Instance612.26 (complete), Instance612.27 (complete), Instance612.28 (complete), Instance612.29 (complete), and Instance612.30 (complete)

3/4/2010 11:39:29 PM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\Performance\\_2010\\_3\\_4\\_21\\_52\\_26.blg](#) has 426 samples.

3/4/2010 11:39:29 PM -- Creating test report ...

3/4/2010 11:39:37 PM -- Volume F: has 0.0111 for Avg. Disk sec/Read.

3/4/2010 11:39:37 PM -- Volume G: has 0.0112 for Avg. Disk sec/Read.

3/4/2010 11:39:37 PM -- Volume H: has 0.0111 for Avg. Disk sec/Read.

3/4/2010 11:39:37 PM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.

3/4/2010 11:39:37 PM -- Volume Q: has 0.0001 for Avg. Disk sec/Read.

3/4/2010 11:39:37 PM -- Volume R: has 0.0001 for Avg. Disk sec/Write.

3/4/2010 11:39:37 PM -- Volume R: has 0.0002 for Avg. Disk sec/Read.

3/4/2010 11:39:37 PM -- Volume S: has 0.0002 for Avg. Disk sec/Write.

3/4/2010 11:39:37 PM -- Volume S: has 0.0002 for Avg. Disk sec/Read.

3/4/2010 11:39:37 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.

3/4/2010 11:39:37 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.

3/4/2010 11:39:37 PM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\Performance\\_2010\\_3\\_4\\_21\\_52\\_26.xml](#) has 425 samples queried.

3/4/2010 11:39:37 PM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\Performance\\_2010\\_3\\_4\\_21\\_52\\_26.html](#) is saved.

3/5/2010 5:36:47 AM -- Performance logging begins (interval: 4000 ms).

3/5/2010 5:36:47 AM -- Recovering databases ...

3/5/2010 6:00:09 AM -- Performance logging ends.

3/5/2010 6:00:09 AM -- Instance612.1 (1389.9221097), Instance612.2 (1392.0437233), Instance612.3 (1392.0437233), Instance612.4 (1374.0100077), Instance612.5 (1367.3799652), Instance612.6 (1374.0100077), Instance612.7 (1387.004891), Instance612.8 (1387.2700927), Instance612.9 (1370.8275873), Instance612.10 (1380.6400502), Instance612.11 (1391.5133199), Instance612.12 (1391.5133199), Instance612.13 (1396.5521522), Instance612.14 (1397.612959), Instance612.15 (1399.4693709), Instance612.16 (1393.9001352), Instance612.17 (1401.8561862), Instance612.18 (1396.8173539), Instance612.19 (1399.9997743), Instance612.20 (1399.4693709), Instance612.21 (1394.960942), Instance612.22 (1398.9389675), Instance612.23 (1397.3477573), Instance612.24 (1385.9440842), Instance612.25 (1397.612959), Instance612.26 (1365.788755), Instance612.27 (1397.0825556), Instance612.28 (1375.0708145), Instance612.29 (1370.2971839), and Instance612.30

(1372.9492009)

3/5/2010 6:00:10 AM -- [C:\Exchange\24k .25-512-](#)

[8krecord\SoftRecovery\SoftRecovery\\_2010\\_3\\_5\\_5\\_36\\_30.blg](#) has 347 samples.

3/5/2010 6:00:10 AM -- Creating test report ...

## Microsoft Exchange Server **Jetstress**

### **SoftRecovery Test Result Report - isv-4150b**

Soft-Recovery Statistics - All

Database Instance	Log files replayed	Elapsed seconds
<b>Instance3396.1</b>	509	1386.7219107
<b>Instance3396.2</b>	528	1389.9666899
<b>Instance3396.3</b>	519	1385.9263158
<b>Instance3396.4</b>	530	1394.475061
<b>Instance3396.5</b>	534	1395.0054576
<b>Instance3396.6</b>	519	1389.4362933
<b>Instance3396.7</b>	515	1389.9666899
<b>Instance3396.8</b>	538	1397.3922423
<b>Instance3396.9</b>	506	1386.4567124
<b>Instance3396.10</b>	521	1394.7402593
<b>Instance3396.11</b>	516	1386.7219107
<b>Instance3396.12</b>	536	1392.0882763
<b>Instance3396.13</b>	512	1380.8875481
<b>Instance3396.14</b>	533	1394.475061
<b>Instance3396.15</b>	538	1395.2706559
<b>Instance3396.16</b>	517	1381.1527464
<b>Instance3396.17</b>	550	1396.0662508
<b>Instance3396.18</b>	521	1391.823078
<b>Instance3396.19</b>	516	1379.8267549
<b>Instance3396.20</b>	502	1379.5615566
<b>Instance3396.21</b>	524	1388.3755001
<b>Instance3396.22</b>	523	1387.5799052
<b>Instance3396.23</b>	518	1388.1103018
<b>Instance3396.24</b>	500	1388.6406984
<b>Instance3396.25</b>	527	1393.6794661
<b>Instance3396.26</b>	531	1395.2706559
<b>Instance3396.27</b>	535	1391.2926814
<b>Instance3396.28</b>	532	1395.0054576
<b>Instance3396.29</b>	528	1387.2835071
<b>Instance3396.30</b>	525	1388.1103018

Disk Subsystem Performance

LogicalDisk	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
-------------	-----------------------	------------------------	-------------------	--------------------	--------------------------

<b>Database (F:)</b>	0.078	0.027	941.749	34.769	(n/a)
<b>Database (G:)</b>	0.073	0.053	935.659	34.844	(n/a)
<b>Database (H:)</b>	0.070	0.018	930.460	34.943	(n/a)
<b>Log (Q:)</b>	0.003	0.000	123.623	0.156	86.994
<b>Log (R:)</b>	0.003	0.000	124.160	0.172	70.544
<b>Log (S:)</b>	0.003	0.000	124.206	0.164	67.094

#### Host System Performance

Counter	Average	Minimum	Maximum
<b>% Processor Time</b>	4.073	0.144	79.990
<b>Available MBytes</b>	12176.216	10000.000	17855.000
<b>Free System Page Table Entries</b>	33561480.254	33561105.000	33561600.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	75845997.925	74657792.000	76845056.000
<b>Pool Paged Bytes</b>	187898416.692	186470400.000	187912192.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/4/2010 9:51:12 PM -- Jetstress testing begins ...

3/4/2010 9:51:12 PM -- Prepare testing begins ...

3/4/2010 9:51:43 PM -- Attaching databases ...

3/4/2010 9:51:43 PM -- Prepare testing ends.

3/4/2010 9:51:43 PM -- Dispatching transactions begins ...

3/4/2010 9:51:43 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)

3/4/2010 9:51:43 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)

3/4/2010 9:52:15 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).

3/4/2010 9:52:15 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).

3/4/2010 9:52:18 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.

3/4/2010 9:52:18 PM -- Performance logging begins (interval: 15000 ms).

3/4/2010 9:52:18 PM -- Generating log files ...

3/4/2010 11:37:54 PM -- Q:\sg1 (102.0% generated), Q:\sg2 (105.8% generated), Q:\sg3 (104.0% generated), Q:\sg4 (106.2% generated), Q:\sg5 (107.0% generated), Q:\sg6 (104.0% generated), Q:\sg7 (103.2% generated), Q:\sg8 (107.8% generated), Q:\sg9 (101.4% generated), Q:\sg10 (104.4% generated), R:\sg1 (103.4% generated), R:\sg2 (107.4% generated), R:\sg3 (102.6% generated), R:\sg4 (106.8% generated), R:\sg5 (107.8% generated), R:\sg6 (103.6% generated), R:\sg7 (110.2% generated), R:\sg8 (104.4% generated), R:\sg9 (103.4% generated), R:\sg10 (100.6% generated), S:\sg1 (105.0% generated), S:\sg2 (104.8% generated), S:\sg3 (103.8% generated), S:\sg4 (100.2% generated), S:\sg5 (105.6% generated), S:\sg6 (106.4% generated), S:\sg7 (107.2% generated), S:\sg8 (106.6% generated), S:\sg9 (105.8% generated), and S:\sg10 (105.2% generated)

3/4/2010 11:37:54 PM -- Performance logging ends.

3/4/2010 11:37:54 PM -- JetInterop batch transaction stats: 3601, 3678, 3672, 3684, 3646, 3590, 3687, 3806, 3541, 3624, 3570, 3729, 3666, 3686, 3742, 3629, 3825, 3676, 3598, 3526, 3640, 3652, 3615, 3483, 3686, 3636, 3686, 3675, 3713, and 3664.

3/4/2010 11:37:55 PM -- Dispatching transactions ends.

3/4/2010 11:37:55 PM -- Shutting down databases ...  
3/4/2010 11:38:01 PM -- Instance3396.1 (complete), Instance3396.2 (complete), Instance3396.3 (complete), Instance3396.4 (complete), Instance3396.5 (complete), Instance3396.6 (complete), Instance3396.7 (complete), Instance3396.8 (complete), Instance3396.9 (complete), Instance3396.10 (complete), Instance3396.11 (complete), Instance3396.12 (complete), Instance3396.13 (complete), Instance3396.14 (complete), Instance3396.15 (complete), Instance3396.16 (complete), Instance3396.17 (complete), Instance3396.18 (complete), Instance3396.19 (complete), Instance3396.20 (complete), Instance3396.21 (complete), Instance3396.22 (complete), Instance3396.23 (complete), Instance3396.24 (complete), Instance3396.25 (complete), Instance3396.26 (complete), Instance3396.27 (complete), Instance3396.28 (complete), Instance3396.29 (complete), and Instance3396.30 (complete)  
3/4/2010 11:38:01 PM -- [C:\Exchange\24k .25-512-8krecord\SoftRecovery\Performance 2010 3 4 21 52 15.blg](#) has 421 samples.  
3/4/2010 11:38:01 PM -- Creating test report ...  
3/4/2010 11:38:06 PM -- Volume F: has 0.0108 for Avg. Disk sec/Read.  
3/4/2010 11:38:06 PM -- Volume G: has 0.0108 for Avg. Disk sec/Read.  
3/4/2010 11:38:06 PM -- Volume H: has 0.0107 for Avg. Disk sec/Read.  
3/4/2010 11:38:06 PM -- Volume Q: has 0.0003 for Avg. Disk sec/Write.  
3/4/2010 11:38:06 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
3/4/2010 11:38:06 PM -- Volume R: has 0.0003 for Avg. Disk sec/Write.  
3/4/2010 11:38:06 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
3/4/2010 11:38:06 PM -- Volume S: has 0.0004 for Avg. Disk sec/Write.  
3/4/2010 11:38:06 PM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
3/4/2010 11:38:06 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
3/4/2010 11:38:06 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
3/4/2010 11:38:06 PM -- [C:\Exchange\24k .25-512-8krecord\SoftRecovery\Performance 2010 3 4 21 52 15.xml](#) has 420 samples queried.  
3/4/2010 11:38:06 PM -- [C:\Exchange\24k .25-512-8krecord\SoftRecovery\Performance 2010 3 4 21 52 15.html](#) is saved.  
3/5/2010 5:37:09 AM -- Performance logging begins (interval: 4000 ms).  
3/5/2010 5:37:09 AM -- Recovering databases ...  
3/5/2010 6:00:27 AM -- Performance logging ends.  
3/5/2010 6:00:27 AM -- Instance3396.1 (1386.7219107), Instance3396.2 (1389.9666899), Instance3396.3 (1385.9263158), Instance3396.4 (1394.475061), Instance3396.5 (1395.0054576), Instance3396.6 (1389.4362933), Instance3396.7 (1389.9666899), Instance3396.8 (1397.3922423), Instance3396.9 (1386.4567124), Instance3396.10 (1394.7402593), Instance3396.11 (1386.7219107), Instance3396.12 (1392.0882763), Instance3396.13 (1380.8875481), Instance3396.14 (1394.475061), Instance3396.15 (1395.2706559), Instance3396.16 (1381.1527464), Instance3396.17 (1396.0662508), Instance3396.18 (1391.823078), Instance3396.19 (1379.8267549), Instance3396.20 (1379.5615566), Instance3396.21 (1388.3755001), Instance3396.22 (1387.5799052), Instance3396.23 (1388.1103018), Instance3396.24 (1388.6406984), Instance3396.25 (1393.6794661), Instance3396.26 (1395.2706559), Instance3396.27 (1391.2926814), Instance3396.28 (1395.0054576), Instance3396.29 (1387.2835071), and Instance3396.30 (1388.1103018)  
3/5/2010 6:00:28 AM -- [C:\Exchange\24k .25-512-8krecord\SoftRecovery\SoftRecovery 2010 3 5 5 36 54.blg](#) has 347 samples.  
3/5/2010 6:00:28 AM -- Creating test report ...

## Microsoft Exchange Server **Jetstress**

### **SoftRecovery Test Result Report - isv-4150c**

Soft-Recovery Statistics - All

Database Instance	Log files replayed	Elapsed seconds
<b>Instance2484.1</b>	526	1294.1989038

<b>Instance2484.2</b>	536	1315.7891654
<b>Instance2484.3</b>	514	1263.1395029
<b>Instance2484.4</b>	524	1275.603823
<b>Instance2484.5</b>	523	1295.259697
<b>Instance2484.6</b>	526	1316.319562
<b>Instance2484.7</b>	532	1319.7671399
<b>Instance2484.8</b>	524	1295.259697
<b>Instance2484.9</b>	528	1289.3941346
<b>Instance2484.10</b>	500	1257.039942
<b>Instance2484.11</b>	511	1294.1989038
<b>Instance2484.12</b>	529	1307.0220216
<b>Instance2484.13</b>	507	1294.7293004
<b>Instance2484.14</b>	516	1308.363613
<b>Instance2484.15</b>	527	1307.0220216
<b>Instance2484.16</b>	526	1321.0931314
<b>Instance2484.17</b>	529	1316.0543637
<b>Instance2484.18</b>	542	1326.6622957
<b>Instance2484.19</b>	519	1309.1592079
<b>Instance2484.20</b>	509	1295.6184947
<b>Instance2484.21</b>	506	1260.2223216
<b>Instance2484.22</b>	527	1309.1592079
<b>Instance2484.23</b>	519	1299.0660726
<b>Instance2484.24</b>	511	1264.995891
<b>Instance2484.25</b>	532	1283.2945737
<b>Instance2484.26</b>	526	1310.7503977
<b>Instance2484.27</b>	524	1284.0901686
<b>Instance2484.28</b>	513	1260.4875199
<b>Instance2484.29</b>	527	1292.607714
<b>Instance2484.30</b>	530	1317.6455535

#### Disk Subsystem Performance

<b>LogicalDisk</b>	<b>Avg. Disk sec/Read</b>	<b>Avg. Disk sec/Write</b>	<b>Disk Reads/sec</b>	<b>Disk Writes/sec</b>	<b>Avg. Disk Bytes/Write</b>
<b>Database (F:)</b>	0.092	0.016	1005.114	36.751	(n/a)
<b>Database (G:)</b>	0.121	0.015	1028.739	36.551	(n/a)
<b>Database (H:)</b>	0.091	0.016	999.640	36.686	(n/a)
<b>Log (Q:)</b>	0.009	0.000	130.789	0.198	166.824
<b>Log (R:)</b>	0.010	0.000	130.277	0.170	112.221
<b>Log (S:)</b>	0.009	0.000	130.350	0.200	184.686

#### Host System Performance

Counter	Average	Minimum	Maximum
<b>% Processor Time</b>	7.375	0.096	37.305
<b>Available MBytes</b>	23901.015	22127.000	30054.000
<b>Free System Page Table Entries</b>	33561200.201	33560899.000	33561312.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	74626729.629	72642560.000	75595776.000
<b>Pool Paged Bytes</b>	161739411.842	160387072.000	161841152.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/4/2010 9:51:30 PM -- Jetstress testing begins ...

3/4/2010 9:51:30 PM -- Prepare testing begins ...

3/4/2010 9:52:01 PM -- Attaching databases ...

3/4/2010 9:52:01 PM -- Prepare testing ends.

3/4/2010 9:52:01 PM -- Dispatching transactions begins ...

3/4/2010 9:52:01 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)

3/4/2010 9:52:01 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)

3/4/2010 9:52:35 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).

3/4/2010 9:52:35 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).

3/4/2010 9:52:39 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.

3/4/2010 9:52:39 PM -- Performance logging begins (interval: 15000 ms).

3/4/2010 9:52:39 PM -- Generating log files ...

3/4/2010 11:38:54 PM -- Q:\sg1 (105.4% generated), Q:\sg2 (107.2% generated), Q:\sg3 (103.0% generated), Q:\sg4 (105.0% generated), Q:\sg5 (104.8% generated), Q:\sg6 (105.4% generated), Q:\sg7 (106.4% generated), Q:\sg8 (105.0% generated), Q:\sg9 (105.8% generated), Q:\sg10 (100.2% generated), R:\sg1 (102.4% generated), R:\sg2 (106.0% generated), R:\sg3 (101.6% generated), R:\sg4 (103.4% generated), R:\sg5 (105.6% generated), R:\sg6 (105.4% generated), R:\sg7 (106.0% generated), R:\sg8 (108.6% generated), R:\sg9 (104.0% generated), R:\sg10 (101.8% generated), S:\sg1 (101.4% generated), S:\sg2 (105.6% generated), S:\sg3 (104.0% generated), S:\sg4 (102.4% generated), S:\sg5 (106.6% generated), S:\sg6 (105.4% generated), S:\sg7 (105.0% generated), S:\sg8 (102.8% generated), S:\sg9 (105.6% generated), and S:\sg10 (106.2% generated)

3/4/2010 11:38:54 PM -- Performance logging ends.

3/4/2010 11:38:54 PM -- JetInterop batch transaction stats: 3658, 3685, 3637, 3636, 3658, 3634, 3707, 3665, 3694, 3539, 3584, 3652, 3512, 3653, 3626, 3708, 3743, 3771, 3627, 3615, 3595, 3636, 3622, 3589, 3699, 3656, 3613, 3564, 3699, and 3694.

3/4/2010 11:38:54 PM -- Dispatching transactions ends.

3/4/2010 11:38:54 PM -- Shutting down databases ...

3/4/2010 11:39:02 PM -- Instance2484.1 (complete), Instance2484.2 (complete), Instance2484.3 (complete), Instance2484.4 (complete), Instance2484.5 (complete), Instance2484.6 (complete), Instance2484.7 (complete), Instance2484.8 (complete), Instance2484.9 (complete), Instance2484.10 (complete), Instance2484.11 (complete), Instance2484.12 (complete), Instance2484.13 (complete), Instance2484.14 (complete), Instance2484.15 (complete), Instance2484.16 (complete), Instance2484.17 (complete), Instance2484.18 (complete), Instance2484.19 (complete), Instance2484.20 (complete), Instance2484.21 (complete), Instance2484.22 (complete), Instance2484.23 (complete), Instance2484.24 (complete), Instance2484.25 (complete), Instance2484.26 (complete), Instance2484.27 (complete), Instance2484.28 (complete), Instance2484.29 (complete), and Instance2484.30 (complete)

3/4/2010 11:39:02 PM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\Performance\\_2010\\_3\\_4\\_21\\_52\\_35.blg](#) has 424 samples.

3/4/2010 11:39:02 PM -- Creating test report ...  
3/4/2010 11:39:05 PM -- Volume F: has 0.0109 for Avg. Disk sec/Read.  
3/4/2010 11:39:05 PM -- Volume G: has 0.0110 for Avg. Disk sec/Read.  
3/4/2010 11:39:05 PM -- Volume H: has 0.0110 for Avg. Disk sec/Read.  
3/4/2010 11:39:05 PM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.  
3/4/2010 11:39:05 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
3/4/2010 11:39:05 PM -- Volume R: has 0.0001 for Avg. Disk sec/Write.  
3/4/2010 11:39:05 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
3/4/2010 11:39:05 PM -- Volume S: has 0.0002 for Avg. Disk sec/Write.  
3/4/2010 11:39:05 PM -- Volume S: has 0.0001 for Avg. Disk sec/Read.  
3/4/2010 11:39:05 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
3/4/2010 11:39:05 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.  
3/4/2010 11:39:05 PM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\Performance\\_2010\\_3\\_4\\_21\\_52\\_35.xml](C:\Exchange\24k_25-512-8krecord\SoftRecovery\Performance_2010_3_4_21_52_35.xml) has 423 samples queried.  
3/4/2010 11:39:05 PM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\Performance\\_2010\\_3\\_4\\_21\\_52\\_35.html](C:\Exchange\24k_25-512-8krecord\SoftRecovery\Performance_2010_3_4_21_52_35.html) is saved.  
3/5/2010 5:37:19 AM -- Performance logging begins (interval: 4000 ms).  
3/5/2010 5:37:19 AM -- Recovering databases ...  
3/5/2010 5:59:26 AM -- Performance logging ends.  
3/5/2010 5:59:26 AM -- Instance2484.1 (1294.1989038), Instance2484.2 (1315.7891654), Instance2484.3 (1263.1395029), Instance2484.4 (1275.603823), Instance2484.5 (1295.259697), Instance2484.6 (1316.319562), Instance2484.7 (1319.7671399), Instance2484.8 (1295.259697), Instance2484.9 (1289.3941346), Instance2484.10 (1257.039942), Instance2484.11 (1294.1989038), Instance2484.12 (1307.0220216), Instance2484.13 (1294.7293004), Instance2484.14 (1308.363613), Instance2484.15 (1307.0220216), Instance2484.16 (1321.0931314), Instance2484.17 (1316.0543637), Instance2484.18 (1326.6622957), Instance2484.19 (1309.1592079), Instance2484.20 (1295.6184947), Instance2484.21 (1260.2223216), Instance2484.22 (1309.1592079), Instance2484.23 (1299.0660726), Instance2484.24 (1264.995891), Instance2484.25 (1283.2945737), Instance2484.26 (1310.7503977), Instance2484.27 (1284.0901686), Instance2484.28 (1260.4875199), Instance2484.29 (1292.607714), and Instance2484.30 (1317.6455535)  
3/5/2010 5:59:28 AM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\SoftRecovery\\_2010\\_3\\_5\\_5\\_37\\_1.blg](C:\Exchange\24k_25-512-8krecord\SoftRecovery\SoftRecovery_2010_3_5_5_37_1.blg) has 329 samples.  
3/5/2010 5:59:28 AM -- Creating test report ...

## Microsoft Exchange Server **Jetstress**

### **SoftRecovery Test Result Report - isv-4150d**

Soft-Recovery Statistics - All

Database Instance	Log files replayed	Elapsed seconds
<b>Instance4676.1</b>	534	1324.896734
<b>Instance4676.2</b>	522	1328.9682035
<b>Instance4676.3</b>	514	1322.775202
<b>Instance4676.4</b>	515	1315.6150315
<b>Instance4676.5</b>	515	1315.6150315
<b>Instance4676.6</b>	513	1315.880223
<b>Instance4676.7</b>	529	1316.1454145
<b>Instance4676.8</b>	534	1321.714436
<b>Instance4676.9</b>	524	1317.7365635
<b>Instance4676.10</b>	513	1316.1454145
<b>Instance4676.11</b>	516	1329.763778

<b>Instance4676.12</b>	534	1327.642246
<b>Instance4676.13</b>	512	1329.763778
<b>Instance4676.14</b>	516	1328.9682035
<b>Instance4676.15</b>	506	1327.3770545
<b>Instance4676.16</b>	531	1329.233395
<b>Instance4676.17</b>	533	1347.0012255
<b>Instance4676.18</b>	536	1328.703012
<b>Instance4676.19</b>	528	1328.9682035
<b>Instance4676.20</b>	518	1330.0289695
<b>Instance4676.21</b>	500	1333.476459
<b>Instance4676.22</b>	513	1333.476459
<b>Instance4676.23</b>	520	1337.4543315
<b>Instance4676.24</b>	530	1345.4100765
<b>Instance4676.25</b>	509	1333.7416505
<b>Instance4676.26</b>	509	1332.946076
<b>Instance4676.27</b>	535	1346.4708425
<b>Instance4676.28</b>	519	1333.7416505
<b>Instance4676.29</b>	521	1345.675268
<b>Instance4676.30</b>	518	1331.354927

#### Disk Subsystem Performance

<b>LogicalDisk</b>	<b>Avg. Disk sec/Read</b>	<b>Avg. Disk sec/Write</b>	<b>Disk Reads/sec</b>	<b>Disk Writes/sec</b>	<b>Avg. Disk Bytes/Write</b>
<b>Database (F:)</b>	0.129	0.038	987.694	35.954	(n/a)
<b>Database (G:)</b>	0.076	0.015	994.871	36.114	(n/a)
<b>Database (H:)</b>	0.119	0.041	989.196	35.646	(n/a)
<b>Log (Q:)</b>	0.007	0.000	128.216	0.192	118.410
<b>Log (R:)</b>	0.009	0.000	128.583	0.165	118.898
<b>Log (S:)</b>	0.010	0.000	127.205	0.136	69.297

#### Host System Performance

<b>Counter</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>
<b>% Processor Time</b>	3.905	0.045	35.220
<b>Available MBytes</b>	13821.743	12068.000	20018.000
<b>Free System Page Table Entries</b>	33561326.820	33561013.000	33561496.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	79607587.257	77381632.000	80371712.000
<b>Pool Paged Bytes</b>	177326129.054	175861760.000	177537024.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/4/2010 9:51:49 PM -- Jetstress testing begins ...  
 3/4/2010 9:51:49 PM -- Prepare testing begins ...  
 3/4/2010 9:52:20 PM -- Attaching databases ...  
 3/4/2010 9:52:20 PM -- Prepare testing ends.  
 3/4/2010 9:52:20 PM -- Dispatching transactions begins ...  
 3/4/2010 9:52:20 PM -- Database cache settings: (minimum: 960.0 MB, maximum: 7.5 GB)  
 3/4/2010 9:52:20 PM -- Database flush thresholds: (start: 76.8 MB, stop: 153.6 MB)  
 3/4/2010 9:52:56 PM -- Database read latency thresholds: (average: 0.02 seconds/read, maximum: 0.05 seconds/read).  
 3/4/2010 9:52:56 PM -- Log write latency thresholds: (average: 0.01 seconds/write, maximum: 0.05 seconds/write).  
 3/4/2010 9:53:01 PM -- Operation mix: Sessions 2, Inserts 25%, Deletes 10%, Replaces 50%, Reads 15%, Lazy Commits 80%.  
 3/4/2010 9:53:01 PM -- Performance logging begins (interval: 15000 ms).  
 3/4/2010 9:53:01 PM -- Generating log files ...  
 3/4/2010 11:39:34 PM -- Q:\sg1 (107.0% generated), Q:\sg2 (104.6% generated), Q:\sg3 (103.0% generated), Q:\sg4 (103.2% generated), Q:\sg5 (103.2% generated), Q:\sg6 (102.8% generated), Q:\sg7 (106.0% generated), Q:\sg8 (107.0% generated), Q:\sg9 (105.0% generated), Q:\sg10 (102.8% generated), R:\sg1 (103.4% generated), R:\sg2 (107.0% generated), R:\sg3 (102.6% generated), R:\sg4 (103.4% generated), R:\sg5 (101.4% generated), R:\sg6 (106.4% generated), R:\sg7 (106.8% generated), R:\sg8 (107.4% generated), R:\sg9 (105.8% generated), R:\sg10 (103.8% generated), S:\sg1 (100.2% generated), S:\sg2 (102.8% generated), S:\sg3 (104.2% generated), S:\sg4 (106.2% generated), S:\sg5 (102.0% generated), S:\sg6 (102.0% generated), S:\sg7 (107.2% generated), S:\sg8 (104.0% generated), S:\sg9 (104.4% generated), and S:\sg10 (103.8% generated)  
 3/4/2010 11:39:34 PM -- Performance logging ends.  
 3/4/2010 11:39:34 PM -- JetInterop batch transaction stats: 3748, 3635, 3621, 3612, 3586, 3579, 3721, 3693, 3651, 3638, 3606, 3743, 3580, 3595, 3559, 3749, 3658, 3740, 3648, 3623, 3539, 3608, 3636, 3661, 3549, 3592, 3676, 3646, 3592, and 3604.  
 3/4/2010 11:39:34 PM -- Dispatching transactions ends.  
 3/4/2010 11:39:34 PM -- Shutting down databases ...  
 3/4/2010 11:39:39 PM -- Instance4676.1 (complete), Instance4676.2 (complete), Instance4676.3 (complete), Instance4676.4 (complete), Instance4676.5 (complete), Instance4676.6 (complete), Instance4676.7 (complete), Instance4676.8 (complete), Instance4676.9 (complete), Instance4676.10 (complete), Instance4676.11 (complete), Instance4676.12 (complete), Instance4676.13 (complete), Instance4676.14 (complete), Instance4676.15 (complete), Instance4676.16 (complete), Instance4676.17 (complete), Instance4676.18 (complete), Instance4676.19 (complete), Instance4676.20 (complete), Instance4676.21 (complete), Instance4676.22 (complete), Instance4676.23 (complete), Instance4676.24 (complete), Instance4676.25 (complete), Instance4676.26 (complete), Instance4676.27 (complete), Instance4676.28 (complete), Instance4676.29 (complete), and Instance4676.30 (complete)  
 3/4/2010 11:39:39 PM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\Performance 2010 3 4 21 52 56.blg](C:\Exchange\24k_25-512-8krecord\SoftRecovery\Performance 2010 3 4 21 52 56.blg) has 425 samples.  
 3/4/2010 11:39:39 PM -- Creating test report ...  
 3/4/2010 11:39:45 PM -- Volume F: has 0.0110 for Avg. Disk sec/Read.  
 3/4/2010 11:39:45 PM -- Volume G: has 0.0110 for Avg. Disk sec/Read.  
 3/4/2010 11:39:45 PM -- Volume H: has 0.0110 for Avg. Disk sec/Read.  
 3/4/2010 11:39:45 PM -- Volume Q: has 0.0001 for Avg. Disk sec/Write.  
 3/4/2010 11:39:45 PM -- Volume Q: has 0.0000 for Avg. Disk sec/Read.  
 3/4/2010 11:39:45 PM -- Volume R: has 0.0001 for Avg. Disk sec/Write.  
 3/4/2010 11:39:45 PM -- Volume R: has 0.0000 for Avg. Disk sec/Read.  
 3/4/2010 11:39:45 PM -- Volume S: has 0.0002 for Avg. Disk sec/Write.  
 3/4/2010 11:39:45 PM -- Volume S: has 0.0000 for Avg. Disk sec/Read.  
 3/4/2010 11:39:45 PM -- Test has 0 Maximum Database Page Fault Stalls/sec.  
 3/4/2010 11:39:45 PM -- Test has 0 Database Page Fault Stalls/sec samples higher than 0.

3/4/2010 11:39:45 PM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\Performance\\_2010\\_3\\_4\\_21\\_52\\_56.xml](C:\Exchange\24k_25-512-8krecord\SoftRecovery\Performance_2010_3_4_21_52_56.xml) has 424 samples queried.  
 3/4/2010 11:39:45 PM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\Performance\\_2010\\_3\\_4\\_21\\_52\\_56.html](C:\Exchange\24k_25-512-8krecord\SoftRecovery\Performance_2010_3_4_21_52_56.html) is saved.  
 3/5/2010 5:36:51 AM -- Performance logging begins (interval: 4000 ms).  
 3/5/2010 5:36:51 AM -- Recovering databases ...  
 3/5/2010 5:59:18 AM -- Performance logging ends.  
 3/5/2010 5:59:18 AM -- Instance4676.1 (1324.896734), Instance4676.2 (1328.9682035), Instance4676.3 (1322.775202), Instance4676.4 (1315.6150315), Instance4676.5 (1315.6150315), Instance4676.6 (1315.880223), Instance4676.7 (1316.1454145), Instance4676.8 (1321.714436), Instance4676.9 (1317.7365635), Instance4676.10 (1316.1454145), Instance4676.11 (1329.763778), Instance4676.12 (1327.642246), Instance4676.13 (1329.763778), Instance4676.14 (1328.9682035), Instance4676.15 (1327.3770545), Instance4676.16 (1329.233395), Instance4676.17 (1347.0012255), Instance4676.18 (1328.703012), Instance4676.19 (1328.9682035), Instance4676.20 (1330.0289695), Instance4676.21 (1333.476459), Instance4676.22 (1333.476459), Instance4676.23 (1337.4543315), Instance4676.24 (1345.4100765), Instance4676.25 (1333.7416505), Instance4676.26 (1332.946076), Instance4676.27 (1346.4708425), Instance4676.28 (1333.7416505), Instance4676.29 (1345.675268), and Instance4676.30 (1331.354927)  
 3/5/2010 5:59:20 AM -- [C:\Exchange\24k\\_25-512-8krecord\SoftRecovery\SoftRecovery\\_2010\\_3\\_5\\_5\\_36\\_33.blg](C:\Exchange\24k_25-512-8krecord\SoftRecovery\SoftRecovery_2010_3_5_5_36_33.blg) has 334 samples.  
 3/5/2010 5:59:20 AM -- Creating test report ...

## Microsoft Exchange Server **Jetstress**

### **Streaming backup Test Result Report - isv-4150a**

#### Streaming Backup Statistics - All

Database Instance	Database Size (MBytes)	Elapsed Backup Time	MBytes Transferred/sec
<b>Instance612.1</b>	106544.77	08:40:40	3.41
<b>Instance612.2</b>	106622.77	08:28:47	3.49
<b>Instance612.3</b>	106532.77	08:08:41	3.63
<b>Instance612.4</b>	106536.77	07:05:37	4.17
<b>Instance612.5</b>	106568.77	08:33:42	3.46
<b>Instance612.6</b>	106526.77	08:27:05	3.50
<b>Instance612.7</b>	106542.77	06:55:33	4.27
<b>Instance612.8</b>	106536.77	08:25:22	3.51
<b>Instance612.9</b>	106452.77	08:05:25	3.65
<b>Instance612.10</b>	106608.77	08:21:15	3.54
<b>Instance612.11</b>	106586.77	07:42:46	3.84
<b>Instance612.12</b>	106564.77	08:28:22	3.49
<b>Instance612.13</b>	106558.77	08:29:52	3.48
<b>Instance612.14</b>	106534.77	07:49:51	3.78
<b>Instance612.15</b>	106518.77	08:36:31	3.44
<b>Instance612.16</b>	106584.77	07:12:00	4.11
<b>Instance612.17</b>	106548.77	08:33:02	3.46
<b>Instance612.18</b>	106544.77	08:38:41	3.42
<b>Instance612.19</b>	106552.77	08:31:38	3.47

<b>Instance612.20</b>	106548.77	08:27:56	3.50
<b>Instance612.21</b>	106582.77	08:29:35	3.49
<b>Instance612.22</b>	106654.77	08:32:24	3.47
<b>Instance612.23</b>	106586.77	08:35:50	3.44
<b>Instance612.24</b>	106538.77	08:35:31	3.44
<b>Instance612.25</b>	106494.77	08:33:37	3.46
<b>Instance612.26</b>	106514.77	08:32:15	3.47
<b>Instance612.27</b>	106596.77	07:58:17	3.71
<b>Instance612.28</b>	106622.77	07:55:54	3.73
<b>Instance612.29</b>	106608.77	06:47:05	4.36
<b>Instance612.30</b>	106472.77	07:39:28	3.86

#### Jetstress System Parameters

<b>Thread count</b>	2 (per-storage group)
<b>Log buffers</b>	9000
<b>Minimum database cache</b>	960.0 MB
<b>Maximum database cache</b>	7680.0 MB
<b>Insert operations</b>	25%
<b>Delete operations</b>	10%
<b>Replace operations</b>	50%
<b>Read operations</b>	15%
<b>Lazy commits</b>	80%

#### Disk Subsystem Performance

<b>LogicalDisk</b>	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
<b>Database (F:)</b>	0.034	0.000	273.494	0.009	(n/a)
<b>Database (G:)</b>	0.035	0.000	273.518	0.010	(n/a)
<b>Database (H:)</b>	0.034	0.001	273.552	0.009	(n/a)
<b>Log (Q:)</b>	0.000	0.000	0.000	0.007	40.397
<b>Log (R:)</b>	0.000	0.000	0.000	0.008	53.969
<b>Log (S:)</b>	0.000	0.000	0.000	0.008	49.876

#### Host System Performance

<b>Counter</b>	Average	Minimum	Maximum
<b>% Processor Time</b>	1.643	0.214	2.721
<b>Available MBytes</b>	29841.066	29729.000	29935.000
<b>Free System Page Table Entries</b>	33560911.784	33560658.000	33561168.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	76104487.385	76087296.000	76124160.000

<b>Pool Paged Bytes</b>	151593960.369	150331392.000	151818240.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log 3/5/2010 8:55:33 AM -- Jetstress testing begins ...  
 3/5/2010 8:55:33 AM -- Prepare testing begins ...  
 3/5/2010 8:56:04 AM -- Attaching databases ...  
 3/5/2010 8:56:04 AM -- Prepare testing ends.  
 3/5/2010 8:56:39 AM -- Performance logging begins (interval: 30000 ms).  
 3/5/2010 8:56:39 AM -- Streaming backup databases ...  
 3/5/2010 5:37:20 PM -- Performance logging ends.  
 3/5/2010 5:37:20 PM -- Instance612.1 (100% processed), Instance612.2 (100% processed), Instance612.3 (100% processed), Instance612.4 (100% processed), Instance612.5 (100% processed), Instance612.6 (100% processed), Instance612.7 (100% processed), Instance612.8 (100% processed), Instance612.9 (100% processed), Instance612.10 (100% processed), Instance612.11 (100% processed), Instance612.12 (100% processed), Instance612.13 (100% processed), Instance612.14 (100% processed), Instance612.15 (100% processed), Instance612.16 (100% processed), Instance612.17 (100% processed), Instance612.18 (100% processed), Instance612.19 (100% processed), Instance612.20 (100% processed), Instance612.21 (100% processed), Instance612.22 (100% processed), Instance612.23 (100% processed), Instance612.24 (100% processed), Instance612.25 (100% processed), Instance612.26 (100% processed), Instance612.27 (100% processed), Instance612.28 (100% processed), Instance612.29 (100% processed), and Instance612.30 (100% processed)  
 3/5/2010 5:37:20 PM -- [C:\Exchange\24k .25-512-8krecord\StreamingBackup\StreamingBackup\\_2010\\_3\\_5\\_8\\_56\\_4.blg](#) has 1040 samples.  
 3/5/2010 5:37:20 PM -- Creating test report ...

## Microsoft Exchange Server **Jetstress**

### **Streaming backup Test Result Report - isv-4150b**

Streaming Backup Statistics - All

Database Instance	Database Size (MBytes)	Elapsed Backup Time	MBytes Transferred/sec
<b>Instance3396.1</b>	106754.77	08:39:55	3.42
<b>Instance3396.2</b>	106660.77	08:21:39	3.54
<b>Instance3396.3</b>	106628.77	07:30:33	3.94
<b>Instance3396.4</b>	106678.77	08:24:44	3.52
<b>Instance3396.5</b>	106670.77	08:32:08	3.47
<b>Instance3396.6</b>	106690.77	07:35:10	3.91
<b>Instance3396.7</b>	106648.77	08:14:07	3.60
<b>Instance3396.8</b>	106570.77	08:10:49	3.62
<b>Instance3396.9</b>	106698.77	08:03:35	3.68
<b>Instance3396.10</b>	106736.77	08:25:53	3.52
<b>Instance3396.11</b>	106706.77	08:07:43	3.65
<b>Instance3396.12</b>	106724.77	07:39:58	3.87
<b>Instance3396.13</b>	106676.77	08:33:39	3.46
<b>Instance3396.14</b>	106660.77	08:29:21	3.49
<b>Instance3396.15</b>	106676.77	08:15:11	3.59
<b>Instance3396.16</b>	106638.77	08:08:29	3.64

<b>Instance3396.17</b>	106650.77	08:27:19	3.50
<b>Instance3396.18</b>	106642.77	08:25:20	3.52
<b>Instance3396.19</b>	106660.77	07:22:50	4.01
<b>Instance3396.20</b>	106754.77	08:26:21	3.51
<b>Instance3396.21</b>	106696.77	07:15:34	4.08
<b>Instance3396.22</b>	106678.77	08:24:56	3.52
<b>Instance3396.23</b>	106716.77	08:28:07	3.50
<b>Instance3396.24</b>	106600.77	08:26:41	3.51
<b>Instance3396.25</b>	106708.77	08:33:39	3.46
<b>Instance3396.26</b>	106710.77	07:47:13	3.81
<b>Instance3396.27</b>	106590.77	08:23:47	3.53
<b>Instance3396.28</b>	106682.77	08:14:17	3.60
<b>Instance3396.29</b>	106736.77	07:59:14	3.71
<b>Instance3396.30</b>	106710.77	08:14:22	3.60

#### Jetstress System Parameters

<b>Thread count</b>	2 (per-storage group)
<b>Log buffers</b>	9000
<b>Minimum database cache</b>	960.0 MB
<b>Maximum database cache</b>	7680.0 MB
<b>Insert operations</b>	25%
<b>Delete operations</b>	10%
<b>Replace operations</b>	50%
<b>Read operations</b>	15%
<b>Lazy commits</b>	80%

#### Disk Subsystem Performance

<b>LogicalDisk</b>	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
<b>Database (F:)</b>	0.034	0.000	274.395	0.009	(n/a)
<b>Database (G:)</b>	0.034	0.000	274.453	0.009	(n/a)
<b>Database (H:)</b>	0.034	0.000	274.466	0.009	(n/a)
<b>Log (Q:)</b>	0.000	0.000	0.000	0.007	52.513
<b>Log (R:)</b>	0.000	0.000	0.000	0.008	53.929
<b>Log (S:)</b>	0.000	0.000	0.000	0.008	47.364

#### Host System Performance

<b>Counter</b>	Average	Minimum	Maximum
<b>% Processor Time</b>	1.331	0.155	2.564
<b>Available MBytes</b>	17935.262	17806.000	17987.000
<b>Free System Page Table Entries</b>	33561498.330	33561129.000	33561745.000

<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	76580990.274	76554240.000	76603392.000
<b>Pool Paged Bytes</b>	188275804.732	186847232.000	188289024.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/5/2010 8:55:36 AM -- Jetstress testing begins ...  
3/5/2010 8:55:36 AM -- Prepare testing begins ...  
3/5/2010 8:56:07 AM -- Attaching databases ...  
3/5/2010 8:56:07 AM -- Prepare testing ends.  
3/5/2010 8:56:40 AM -- Performance logging begins (interval: 30000 ms).  
3/5/2010 8:56:40 AM -- Streaming backup databases ...  
3/5/2010 5:36:36 PM -- Performance logging ends.  
3/5/2010 5:36:36 PM -- Instance3396.1 (100% processed), Instance3396.2 (100% processed), Instance3396.3 (100% processed), Instance3396.4 (100% processed), Instance3396.5 (100% processed), Instance3396.6 (100% processed), Instance3396.7 (100% processed), Instance3396.8 (100% processed), Instance3396.9 (100% processed), Instance3396.10 (100% processed), Instance3396.11 (100% processed), Instance3396.12 (100% processed), Instance3396.13 (100% processed), Instance3396.14 (100% processed), Instance3396.15 (100% processed), Instance3396.16 (100% processed), Instance3396.17 (100% processed), Instance3396.18 (100% processed), Instance3396.19 (100% processed), Instance3396.20 (100% processed), Instance3396.21 (100% processed), Instance3396.22 (100% processed), Instance3396.23 (100% processed), Instance3396.24 (100% processed), Instance3396.25 (100% processed), Instance3396.26 (100% processed), Instance3396.27 (100% processed), Instance3396.28 (100% processed), Instance3396.29 (100% processed), and Instance3396.30 (100% processed)  
3/5/2010 5:36:36 PM -- [C:\Exchange\24k .25-512-8krecord\StreamingBackup\StreamingBackup\\_2010\\_3\\_5\\_8\\_56\\_7.blg](#) has 1038 samples.  
3/5/2010 5:36:36 PM -- Creating test report ...

## Microsoft Exchange Server **Jetstress**

### **Streaming backup Test Result Report - isv-4150c**

Streaming Backup Statistics - All

Database Instance	Database Size (MBytes)	Elapsed Backup Time	MBytes Transferred/sec
<b>Instance2484.1</b>	106708.77	08:22:54	3.54
<b>Instance2484.2</b>	106736.77	08:09:12	3.64
<b>Instance2484.3</b>	106710.77	08:28:33	3.50
<b>Instance2484.4</b>	106660.77	07:37:32	3.89
<b>Instance2484.5</b>	106742.77	07:21:18	4.03
<b>Instance2484.6</b>	106808.77	08:15:20	3.59
<b>Instance2484.7</b>	106734.77	08:28:12	3.50
<b>Instance2484.8</b>	106736.77	08:23:33	3.53
<b>Instance2484.9</b>	106700.77	08:26:18	3.51

<b>Instance2484.10</b>	106636.77	07:09:50	4.13
<b>Instance2484.11</b>	106784.77	07:26:29	3.99
<b>Instance2484.12</b>	106854.77	07:53:23	3.76
<b>Instance2484.13</b>	106760.77	07:29:34	3.96
<b>Instance2484.14</b>	106752.77	07:59:11	3.71
<b>Instance2484.15</b>	106766.77	07:11:43	4.12
<b>Instance2484.16</b>	106726.77	07:49:27	3.79
<b>Instance2484.17</b>	106672.77	08:13:01	3.61
<b>Instance2484.18</b>	106818.77	07:26:53	3.98
<b>Instance2484.19</b>	106752.77	07:24:38	4.00
<b>Instance2484.20</b>	106898.77	07:03:14	4.21
<b>Instance2484.21</b>	106792.77	08:20:06	3.56
<b>Instance2484.22</b>	106800.77	08:32:07	3.48
<b>Instance2484.23</b>	106738.77	08:24:26	3.53
<b>Instance2484.24</b>	106752.77	08:16:59	3.58
<b>Instance2484.25</b>	106798.77	08:08:31	3.64
<b>Instance2484.26</b>	106790.77	08:09:40	3.63
<b>Instance2484.27</b>	106772.77	07:05:09	4.19
<b>Instance2484.28</b>	106758.77	07:03:48	4.20
<b>Instance2484.29</b>	106812.77	08:28:40	3.50
<b>Instance2484.30</b>	106748.77	08:22:49	3.54

Jetstress System Parameters

<b>Thread count</b>	2 (per-storage group)
<b>Log buffers</b>	9000
<b>Minimum database cache</b>	960.0 MB
<b>Maximum database cache</b>	7680.0 MB
<b>Insert operations</b>	25%
<b>Delete operations</b>	10%
<b>Replace operations</b>	50%
<b>Read operations</b>	15%
<b>Lazy commits</b>	80%

Disk Subsystem Performance

<b>LogicalDisk</b>	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
<b>Database (F:)</b>	0.034	0.000	278.579	0.010	(n/a)
<b>Database (G:)</b>	0.031	0.000	278.732	0.010	(n/a)
<b>Database (H:)</b>	0.034	0.000	278.720	0.009	(n/a)
<b>Log (Q:)</b>	0.000	0.000	0.000	0.008	49.621
<b>Log (R:)</b>	0.000	0.000	0.000	0.008	51.080

<b>Log (S:)</b>	0.000	0.000	0.000	0.007	51.061
-----------------	-------	-------	-------	-------	--------

### Host System Performance

Counter	Average	Minimum	Maximum
<b>% Processor Time</b>	2.666	0.103	5.272
<b>Available MBytes</b>	30173.846	30067.000	30276.000
<b>Free System Page Table Entries</b>	33561100.062	33560785.000	33561357.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	75150501.161	75141120.000	75169792.000
<b>Pool Paged Bytes</b>	161951591.851	160501760.000	162320384.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/5/2010 8:55:37 AM -- Jetstress testing begins ...

3/5/2010 8:55:37 AM -- Prepare testing begins ...

3/5/2010 8:56:08 AM -- Attaching databases ...

3/5/2010 8:56:08 AM -- Prepare testing ends.

3/5/2010 8:56:42 AM -- Performance logging begins (interval: 30000 ms).

3/5/2010 8:56:42 AM -- Streaming backup databases ...

3/5/2010 5:28:50 PM -- Performance logging ends.

3/5/2010 5:28:50 PM -- Instance2484.1 (100% processed), Instance2484.2 (100% processed), Instance2484.3 (100% processed), Instance2484.4 (100% processed), Instance2484.5 (100% processed), Instance2484.6 (100% processed), Instance2484.7 (100% processed), Instance2484.8 (100% processed), Instance2484.9 (100% processed), Instance2484.10 (100% processed), Instance2484.11 (100% processed), Instance2484.12 (100% processed), Instance2484.13 (100% processed), Instance2484.14 (100% processed), Instance2484.15 (100% processed), Instance2484.16 (100% processed), Instance2484.17 (100% processed), Instance2484.18 (100% processed), Instance2484.19 (100% processed), Instance2484.20 (100% processed), Instance2484.21 (100% processed), Instance2484.22 (100% processed), Instance2484.23 (100% processed), Instance2484.24 (100% processed), Instance2484.25 (100% processed), Instance2484.26 (100% processed), Instance2484.27 (100% processed), Instance2484.28 (100% processed), Instance2484.29 (100% processed), and Instance2484.30 (100% processed)

3/5/2010 5:28:50 PM -- [C:\Exchange\24k .25-512-](#)

[8krecord\StreamingBackup\StreamingBackup\\_2010\\_3\\_5\\_8\\_56\\_8.blg](#) has 1023 samples.

3/5/2010 5:28:50 PM -- Creating test report ...

## Microsoft Exchange Server **Jetstress**

### **Streaming backup Test Result Report - isv-4150d**

#### Streaming Backup Statistics - All

Database Instance	Database Size (MBytes)	Elapsed Backup Time	MBytes Transferred/sec
<b>Instance4676.1</b>	106706.77	07:56:54	3.73
<b>Instance4676.2</b>	106732.77	08:15:54	3.59
<b>Instance4676.3</b>	106818.77	08:16:27	3.59
<b>Instance4676.4</b>	106712.77	07:12:37	4.11
<b>Instance4676.5</b>	106738.77	08:25:38	3.52
<b>Instance4676.6</b>	106712.77	08:28:24	3.50

<b>Instance4676.7</b>	106724.77	08:24:11	3.53
<b>Instance4676.8</b>	106804.77	08:09:30	3.64
<b>Instance4676.9</b>	106732.77	08:30:04	3.49
<b>Instance4676.10</b>	106652.77	07:40:38	3.86
<b>Instance4676.11</b>	106836.77	08:26:21	3.52
<b>Instance4676.12</b>	106594.77	08:16:46	3.58
<b>Instance4676.13</b>	106624.77	08:25:08	3.52
<b>Instance4676.14</b>	106730.77	07:46:27	3.81
<b>Instance4676.15</b>	106724.77	07:49:00	3.79
<b>Instance4676.16</b>	106774.77	08:27:22	3.51
<b>Instance4676.17</b>	106698.77	07:48:04	3.80
<b>Instance4676.18</b>	106632.77	08:23:11	3.53
<b>Instance4676.19</b>	106740.77	08:26:10	3.51
<b>Instance4676.20</b>	106720.77	07:12:00	4.12
<b>Instance4676.21</b>	106722.77	08:09:24	3.63
<b>Instance4676.22</b>	106646.77	07:40:02	3.86
<b>Instance4676.23</b>	106690.77	07:34:16	3.91
<b>Instance4676.24</b>	106770.77	07:23:49	4.01
<b>Instance4676.25</b>	106712.77	08:14:49	3.59
<b>Instance4676.26</b>	106658.77	08:29:43	3.49
<b>Instance4676.27</b>	106704.77	08:23:52	3.53
<b>Instance4676.28</b>	106718.77	08:17:30	3.58
<b>Instance4676.29</b>	106680.77	08:19:50	3.56
<b>Instance4676.30</b>	106684.77	07:41:03	3.86

#### Jetstress System Parameters

<b>Thread count</b>	2 (per-storage group)
<b>Log buffers</b>	9000
<b>Minimum database cache</b>	960.0 MB
<b>Maximum database cache</b>	7680.0 MB
<b>Insert operations</b>	25%
<b>Delete operations</b>	10%
<b>Replace operations</b>	50%
<b>Read operations</b>	15%
<b>Lazy commits</b>	80%

#### Disk Subsystem Performance

<b>LogicalDisk</b>	Avg. Disk sec/Read	Avg. Disk sec/Write	Disk Reads/sec	Disk Writes/sec	Avg. Disk Bytes/Write
<b>Database (F:)</b>	0.035	0.000	279.663	0.009	(n/a)
<b>Database (G:)</b>	0.035	0.000	279.593	0.010	(n/a)

<b>Database (H:)</b>	0.035	0.000	279.565	0.010	(n/a)
<b>Log (Q:)</b>	0.000	0.000	0.000	0.007	52.183
<b>Log (R:)</b>	0.000	0.000	0.000	0.008	41.831
<b>Log (S:)</b>	0.000	0.000	0.000	0.008	50.416

#### Host System Performance

Counter	Average	Minimum	Maximum
<b>% Processor Time</b>	1.462	0.204	2.275
<b>Available MBytes</b>	20109.257	20016.000	20216.000
<b>Free System Page Table Entries</b>	33561293.659	33560779.000	33561526.000
<b>Transition Pages RePurposed/sec</b>	0.000	0.000	0.000
<b>Pool Nonpaged Bytes</b>	79921758.964	79912960.000	79933440.000
<b>Pool Paged Bytes</b>	176841166.257	174768128.000	178016256.000
<b>Database Page Fault Stalls/sec</b>	0.000	0.000	0.000

Test Log3/5/2010 8:55:38 AM -- Jetstress testing begins ...

3/5/2010 8:55:38 AM -- Prepare testing begins ...

3/5/2010 8:56:09 AM -- Attaching databases ...

3/5/2010 8:56:09 AM -- Prepare testing ends.

3/5/2010 8:56:47 AM -- Performance logging begins (interval: 30000 ms).

3/5/2010 8:56:47 AM -- Streaming backup databases ...

3/5/2010 5:26:51 PM -- Performance logging ends.

3/5/2010 5:26:51 PM -- Instance4676.1 (100% processed), Instance4676.2 (100% processed), Instance4676.3 (100% processed), Instance4676.4 (100% processed), Instance4676.5 (100% processed), Instance4676.6 (100% processed), Instance4676.7 (100% processed), Instance4676.8 (100% processed), Instance4676.9 (100% processed), Instance4676.10 (100% processed), Instance4676.11 (100% processed), Instance4676.12 (100% processed), Instance4676.13 (100% processed), Instance4676.14 (100% processed), Instance4676.15 (100% processed), Instance4676.16 (100% processed), Instance4676.17 (100% processed), Instance4676.18 (100% processed), Instance4676.19 (100% processed), Instance4676.20 (100% processed), Instance4676.21 (100% processed), Instance4676.22 (100% processed), Instance4676.23 (100% processed), Instance4676.24 (100% processed), Instance4676.25 (100% processed), Instance4676.26 (100% processed), Instance4676.27 (100% processed), Instance4676.28 (100% processed), Instance4676.29 (100% processed), and Instance4676.30 (100% processed)

3/5/2010 5:26:51 PM -- [C:\Exchange\24k .25-512-8krecord\StreamingBackup\StreamingBackup\\_2010\\_3\\_5\\_8\\_56\\_9.blg](#) has 1019 samples.

3/5/2010 5:26:51 PM -- Creating test report ...