

NotesBench Disclosure Report
for
IBM @server xSeries 240
using
Lotus Domino Server 5.04a
and
Windows 2000 Server

Results Certified April 24, 2001

IBM Corporation



Table of Contents

Section 1: Executive Summary

Section 2: Benchmarking Objectives

Section 3: Test Methodologies

Section 4: Data

Section 5: Analysis

Section 6: Conclusions

Section 7: Statement by Auditor

Appendix A: Overall Test Setup and Software Versions

Appendix B: System Configurations

Appendix C: Operating System Parameters Values

Appendix D: Notes Parameters (NOTES.INI file)

Appendix E: Network Configuration File(s)

Appendix F: Guidelines for Information Usage

Appendix G: Pricing

Appendix H: Optional (vendor-defined information)

Edition Notice

Executive Summary

The IBM® @server xSeries™ 240 demonstrated leadership performance running Lotus® Domino® Server Release 5.04a on Microsoft® Windows® 2000 Server. The results detailed in this report were obtained using the NotesBench R5Mail-Only workload.

Test Script	Maximum Users	NotesMark (tpm)	Ave. Response Time (sec)	\$/User	\$/NotesMark
R5Mail-Only	9,800	13,465	1.124	\$4.11	\$2.99

The xSeries 240 server was configured with two 1GHz¹ Intel® Pentium® III processors, 4GB² of memory, and 31 hard disk drives. All configuration details are provided in Appendix A: Overall Test Setup and Software Versions.

The server under test supported an R5Mail-Only workload of 9,800 active mail users (see price/performance results³ above).

IBM's xSeries Server Performance Laboratory in Research Triangle Park, NC, conducted the benchmark in April, and KMDS Technical Associates, Inc., audited the results in April 2001.

NotesBench provides an objective method for evaluating the performance of different platforms running Lotus Domino Server. NotesBench generates a transactions-per-minute (tpm) throughput metric, called a NotesMark, for each test, along with a value for the maximum capacity (number of users) supported, and the average response time.

Benchmarking Objectives

The benchmark objective was to provide customers with information on how to fully utilize the capability of the xSeries 240 system as a Domino Server 5.0 mail server configured with the ServeRAID Ultra160 SCSI Adapter for RAID-1 data redundancy.

¹ GHz only measures microprocessor internal clock speed, not application performance. Many factors affect application performance.

² When referring to hard drive capacity, GB stands for one thousand million bytes. Total user-accessible capacity may be less.

³ The price/performance results are based on IBM's estimated reseller pricing. IBM resellers set their own prices, and actual prices may vary.

Test Methodologies

Test Setup and Hardware/Software Configuration

The xSeries 240 system under test (SUT) was configured with two 1GHz Pentium III processors (256KB of ECC full-speed L2 write-back cache and 133MHz frontside bus per processor), 4GB of memory, three 9.1GB and 28 18.2B 10K rpm hard disk drives. Four RAID-1 arrays, each composed of seven hard drives, which contained the mail files, were connected to a channel on a ServeRAID-4M Ultra160 SCSI Adapter. Three hard drives, two of which were contained in a RAID-1 array, and one of which was used as the boot disk, were connected to a ServeRAID-4L Ultra160 SCSI Adapter. A more detailed description of the configuration of the RAID-1 arrays is provided in Appendix A.

The network consisted of a 16-port IBM Type 8371-A16 switch; one 10/100 Ethernet Server Adapter was installed in the xSeries 240 system under test. All child drivers, parent and SUT were connected to a port on the switch. The IBM xSeries 240 system under test ran Microsoft Windows 2000 Server and Domino Server 5.04a.

The RAID controller configuration value for Stripe Unit Size was set at 16KB. Write-back cache was enabled for all RAID-1 arrays.

The following NOTES.INI parameters were modified as recommended in the NotesBench operator's manual.

R5Mail-Only Workload
Server_Max_Concurrent_Trans=1000
NSF_DBcache_MaxEntries=10000
MailLogToEventsOnly=1
Log_MailRouting=10
Log_Sessions=0
Mail_Number_Of_MailBoxes=2
Server_Pool_Tasks=100
Max_Users=10001
DBMaxEntries=10000

The following parameters were added to suppress database activity logging after long runs and to capture server console output:

```
No_Force_Activity_Logging=1
Server_Show_Performance=1
Debug_Outfile=\\Parent1\Results\SUTINFO.TXT
```

All Notes server tasks were disabled except Router.

All Domino data files were located on the D:, E:, F:, G: and J: RAID-1 arrays. The Domino executable codes and data link files were located on the J: RAID-1 array.

Test Procedures

Several trial runs were conducted starting with a single Domino server to attempt to exhaust at least one of the system resources: processor, memory or disk subsystem. When average user response time reached an unacceptable level before any one of these resources had been fully utilized, an additional resource was installed. System resource utilization was monitored using Windows 2000 Performance Monitor (PERFMON), which enabled the system configuration to be optimized while balancing system resources.

The 9,800 users were distributed over 10 clients. Each client added 800 to 1,000 users to the system under test. The test ran for 13 hours and 6 minutes, including ramp-up. Child 1 through child 9 simulated 1,000 users each, and child 10 simulated 800 users. The actual ramp-up period from startup of child 1 to the point when all 9,800 users were shown on the server console was approximately 6 hours. The test ran for more than 6 hours after ramp-up. During the test runs, the tools used to determine steady state included the child driver RES files, Notesizer command outputs, and Domino Server statistics output to the server console on a minute-by-minute basis.

To confirm steady state, we verified the number of users at the server and its logs. We confirmed steady state when the number of users on the SUT Domino Server console reached the intended number of users. We also used the Show Stat Mail command on the server to verify that at least 90 percent of the mail generated during the test period was delivered to the local mail databases during the test period.

To ensure that the test results were reproducible, all tests were repeated, and the results were compared and were found to be consistent.

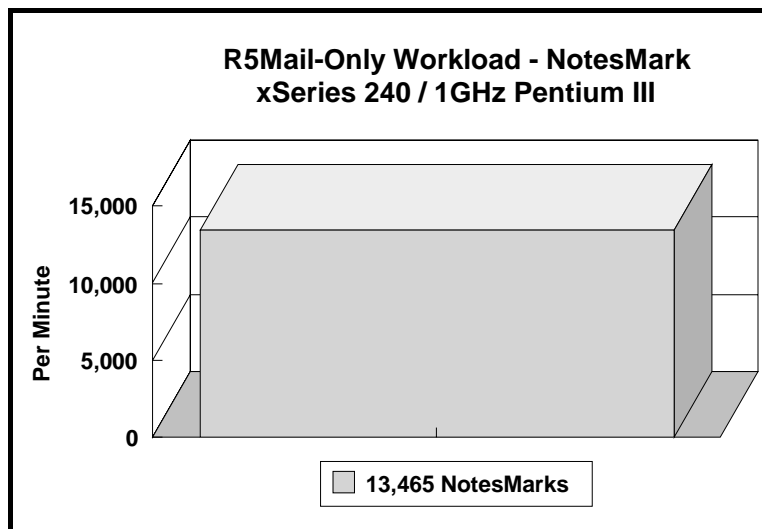
Other NotesBench Tests

IBM intends to continue conducting NotesBench measurements to further optimize and exploit the performance capability of the xSeries product line running Domino Server 5.04a.

Data

xSeries 240 NotesMark Value for R5Mail-Only Test

The xSeries 240 server demonstrated that it can support 9,800 concurrent, active users with this workload. The NotesMark throughput value was 13,465. Average response time was 1.124 seconds. The test ran error-free for a period of 13 hours and 6 minutes.



The R5Mail workload executes Notes transactions that model a server for mail users at sites that rely only on mail for communication. The resulting capacity metric for a mail-only server is the maximum number of users that can be supported before the average user response time becomes unacceptable.

The Domino R5Mail-Only test script models an active user who is reading and sending mail. The script contains an average of 15 minutes of waiting; thus, the average user would execute this script a maximum of four times each hour. For each iteration of the test script, there are 5 documents read, 2 documents updated, 2 documents deleted, 2 documents added, 1 view scrolling operation, 1 database opened and closed, 1 view opened and closed, looking up of recipients and sending an invitation every 30 minutes, as well as some miscellaneous operations. In sending messages, each user creates and sends a mail message to NumMessageRecipients no more frequently than every 90 minutes. About every 90 minutes, each user creates a meeting invitation and responds to an invitation.

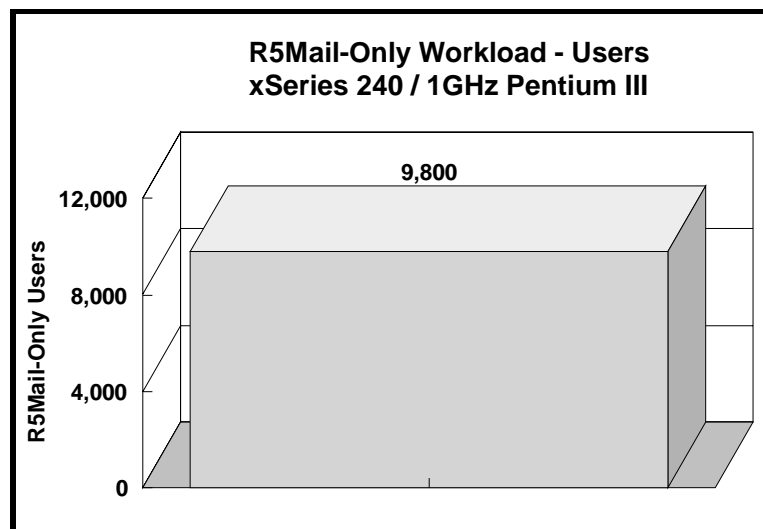
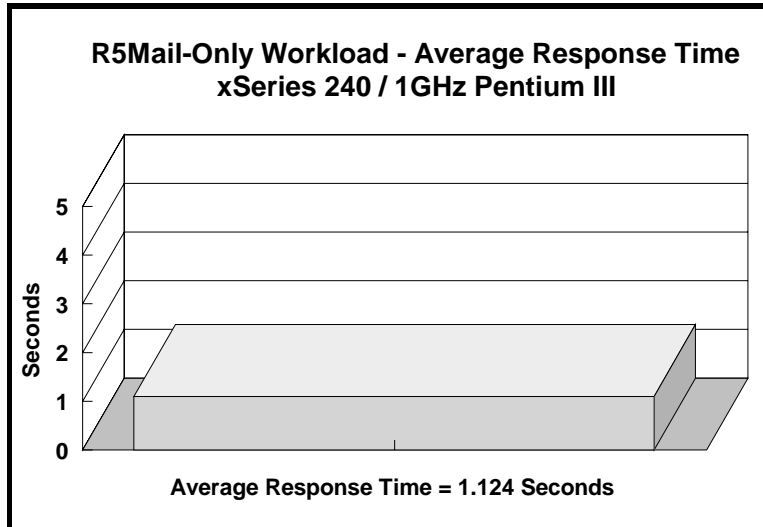
NotesNum Output for R5Mail-Only Test

Min Start Time = 04/02/2001 09:24:57 AM Max Stop Time = 04/02/2001 10:30:29 PM

Total Test Errors = 0

Total Test Time = 47160 sec

Test Run: Users = 9800 NotesMark = 13465 Response Time = 1124 msec (04/02/2001 03:08:00 PM to 04/02/2001 10:17:00 PM)



Analysis

When configured optimally as described in this report, the xSeries 240 server demonstrated that it can manage the intense resource usage during ramp-up to 9,800 concurrent R5Mail users with no errors at the clients. During the steady-state period on one of the successful 9,800-user runs, the average CPU utilization was 94 percent. The average available memory was 1.24GB.

The transaction logging option was not enabled for this audit run. When this option is enabled, we recommended placing the transaction logging directory on a dedicated disk that is attached to a less-busy adapter on a less-busy PCI bus to improve response time.

Conclusions

The test results demonstrate that the xSeries 240 configured as described in this report can support up to 9,800 concurrent, active R5Mail users with a response time well below that permitted by the test criteria. The server's architecture provides many options that can expand its capability. With existing available memory, and upgradable CPU and I/O subsystems, the system can be further expanded to accommodate additional Domino server tasks and other applications..

These results are based on running the xSeries 240 as a dedicated Domino server. The addition of other application workloads will affect the number of users supported as well as the response time. Achieving optimum performance in a customer environment is highly dependent upon selecting adequate processor power, memory and disk storage as well as balancing the configuration of that hardware and appropriately tuning the operating system and Domino software.

These results represent leadership performance in a two-processor hardware platforms for the Domino Server 5.04a environment.

Statement by Auditor

The original “Lotus NotesBench Test Results Report Certification Letter” was signed by Daryl K. Thompson, NotesBench Auditor for KMDS Technical Associates, Inc., and is on file at IBM.

Appendix A: Overall Test Setup and Software Versions

Number of Client Systems

For the R5Mail-Only test, 11 driver systems were used. Ten of those systems were configured as child drivers (child 1 through child 10). A parent system was used for debug_output data collection and to control the run.

The disk configuration used for the child systems is as follows:

- Child drivers 1-10
 - C: Partition (2GB - NTFS) - Windows 2000
 - D: Partition (6.5GB - NTFS) - Notes 5.04a code and data

Number of Server Platforms

One server platform, the xSeries 240 with two 1GHz Pentium III processors and 4GB of memory, was benchmarked.

The disk configuration used for the system under test is as follows:

- C: Single disk drive (9.1GB - NTFS) - Windows 2000 Server (Boot Partition)
- D: Partition (60GB - NTFS) - Domino mail files
- E: Partition (60GB - NTFS) - Domino mail files
- F: Partition (60GB - NTFS) - Domino mail files
- G: Partition (60GB - NTFS) - Domino mail files
- J: Partition (9.1GB - NTFS) - Domino executables and Domino mail data subdirectory

Network

The network consisted of a single segment. All child drivers, parent and SUT were connected to one of 16 ports on an IBM TYPE 8371 A-16 switch.

Software Versions

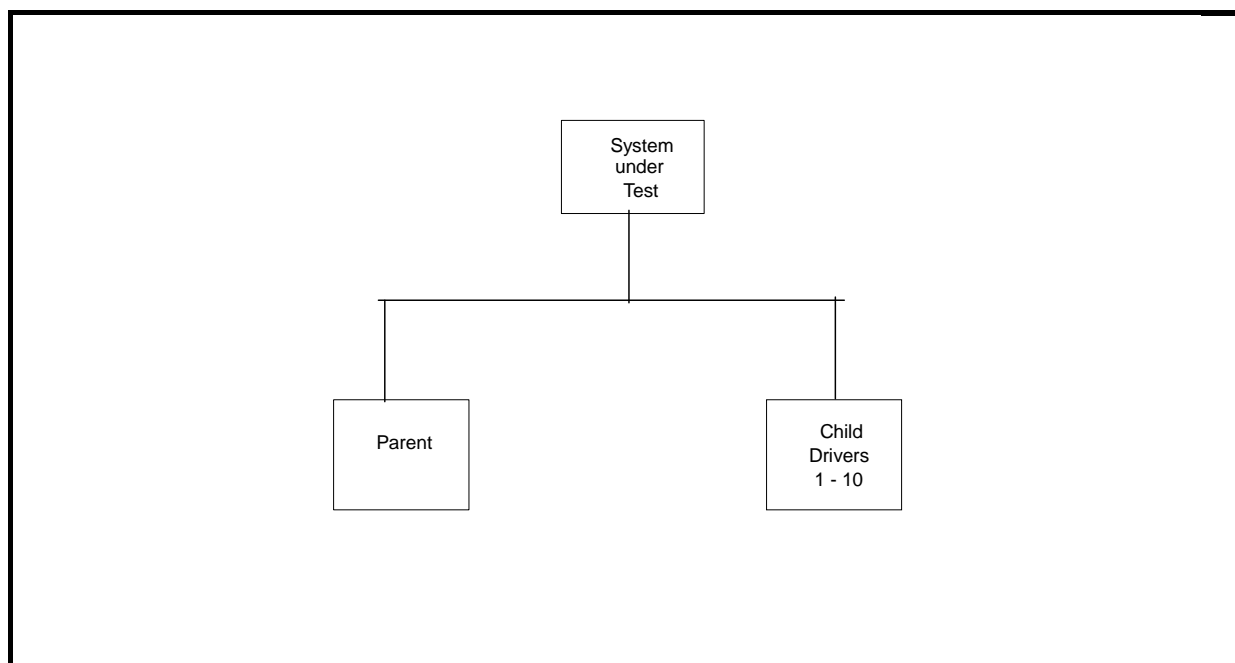
Software versions used on the system under test were as follows:

- Microsoft Windows 2000 Server and Service Pack 1
- Lotus Domino Server Release 5.04a for Windows 2000

Software versions used on the child and parent drivers were as follows:

- Microsoft Windows 2000 Professional for child and Server for parent
- Lotus Domino Client Release 5.04a for Windows 2000
- NotesBench Version 5.04 - Windows/32, released August 10, 2000

Test Setup Diagram



Details of Configuration

System Under Test	Child Drivers 1-10	Parent Source Driver
xSeries 240	IBM IntelliStation M Pro	IBM PC Server 325
2 x 1GHz Pentium III Processor	1 x 500MHz Pentium III	1 x 233MHz Pentium II
4GB Memory	256MB Memory	128MB Memory
31 x 9.1GB Drives (5 RAID-1 arrays)	1 x 9.1GB Drive	2 x 4.51GB Drive
1 x ServeRAID-4L Ultra160 SCSI Adapter 2 x ServeRAID-4M Ultra160 SCSI Adapter		
1 10/100 Ethernet Adapter 2	Integrated 10/100 Ethernet Controller	Integrated 10/100 Ethernet Controller
Microsoft Windows 2000 Server	Microsoft Windows 2000 Professional	Microsoft Windows 2000 Server

Appendix B: System Configurations

Server under Test	
System	xSeries 240
Processor	2 x 1GHz Pentium III
Memory	4GB
Cache	256KB ECC Full-Speed L2 Cache per Processor
RAID Controller	1 x ServeRAID-4L and 2 x ServeRAID-4M Ultra160 SCSI Adapters
Disk Drive	28 x 18.2GB 10K rpm (configured as four RAID-1 arrays) 3x 9.1 GB 10K rpm (configured as one RAID-1 array, plus a single system boot drive)
Network Interface	10/100 Ethernet Server Adapter
I/O	PCI Bus
Operating System	Microsoft Windows 2000 Server
	Lotus Domino Server Release 5.04a for Windows 2000

Child Drivers 1 - 10	
System	IBM IntelliStation M Pro
Processor	1 x 500MHz Pentium III
Memory	256MB
Disk Drive	1 x 9.1GB
Network Interface	Integrated 10/100 Ethernet Controller
I/O	PCI Bus
Operating System	Microsoft Windows 2000 Professional
NotesBench	NotesBench Version 5.04 - Windows/32, released August 10, 2000

Parent	
System	IBM PC Server 325
Processor	1 x 233MHz Pentium II
Memory	128MB
Disk Drive	2 x 4.51GB
Network Interface	Integrated 10/100 Ethernet Controller
I/O	PCI Bus
Operating System	Microsoft Windows 2000 Server
Notes	Lotus Domino Client Release 5.04a for Windows 2000
NotesBench	NotesBench Version 5.04 - Windows/32, released August 10, 2000

Appendix C: Operating System Parameters

In the system under test, the following registry variables were changed from their default values of 2 to 0:

HKEY_LOCAL_MACHINE/System/CurrentControlSet/Control/PriorityControl/Win32PrioritySeparation:
REG_DWORD:0

HKEY_LOCAL_MACHINE/System/CurrentControlSet/Control/SessionManager/MemoryManager/
LargeSystemCache: REG_DWORD:0

Appendix D: NOTES.INI Settings

NOTES.INI for System under Test

[Notes]

```
Directory=j:\notes5\data
KitType=2
SetupDB=Setup.nsf
UserName=administrator
CompanyName=ibm
NotesProgram=j:\notes5
InstallType=4
CONSOLE_Lotus_Domino_Server=80 300 7 183 101 851 588
WinNTIconPath=j:\notes5\data\W32
Timezone=5
DST=1
$$HasLANPort=1
WWWDSP_SYNC_BROWSERCACHE=0
WWWDSP_PREFETCH_OBJECT=0
EnablePlugins=1
Preferences=2147486833
AltNameLanguage=en
ContentLanguage=en-US
WeekStart=1
ViewWeekStart=2
NavWeekStart=2
XLATE_CSID=52
SPELL_LANG=1033
Region=en-US
Passthru_LogLevel=0
Console_LogLevel=2
VIEWIMP1=Lotus 1-2-3 Worksheet,0_IWKS,.,WKS.,WK1.,WR1.,WRK.,WK3.,WK4.,4,
VIEWIMP3=Structured Text,0_ISTR,.,LTR.,CGN.,STR.,1,
VIEWIMP4=Tabular Text,0_ITAB,.,PRN.,RPT.,TXT.,TAB.,1,
VIEWEXP1=Lotus 1-2-3 Worksheet,0_XWKS,.,WKS.,WK1.,WR1.,WRK.,4,
VIEWEXP3=Structured Text,0_XSTR,.,LTR.,CGN.,STR.,1,
VIEWEXP4=Tabular Text,1_XTAB,.,LTR.,RPT.,CGN.,TAB.,1,
EDITIMP1=ASCII Text,0_ITEXT,.,TXT.,PRN.,C.,H.,RIP.,1,
EDITIMP2=Microsoft RTF,0_IW4W,_IRTF,.,DOC.,RTF,.,2,
EDITIMP3=Lotus 1-2-3,0_IW4W,_IWKSE,.,WKS.,WK1.,WR1.,WRK.,WK3.,WK4.,123.,4,
EDITIMP4=Lotus PIC,0_IPIC,.,PIC.,8,
EDITIMP5=CGM Image,0_IFL,.,GMF,.,CGM.,8,
EDITIMP6=TIFF 5.0 Image,0_ITIFF,.,TIF.,18,
EDITIMP7=BMP Image,0_IBMP,.,BMP.,18,
EDITIMP8=Lotus Ami Pro,0_IW4W,W4W33F/V0,.,SAM.,2,
EDITIMP9=HTML File,0_IHTML,.,HTM.,HTML.,1,
EDITIMP17=WordPerfect 5.x,0_IW4W,W4W07F/V1,.,DOC.,WPD.,2,
EDITIMP21=Lotus Word Pro,0_IW4W,W4W12F/V0,.,LWP.,2,
EDITIMP22=PCX Image,0_IPCX,.,PCX.,18,
EDITIMP28=Binary with Text,0_ISTRNGS,.,*,1,
EDITIMP29=WordPerfect 6.0/6.1,0_IW4W,W4W48F/V0,.,WPD.,WPT.,DOC.,2,
EDITIMP30=Microsoft Excel,0_IW4W,W4W21F/V4C,.,XLS.,4,
EDITIMP31=Microsoft Word,0_IW4W,W4W49F/V0,.,DOC.,2,
EDITIMP32=GIF Image,0_IGIF,.,GIF.,18,
EDITIMP33=JPEG Image,0_IJPEG,.,JPG.,18,
EDITEXP1=ASCII Text,2_XTEXT,.,TXT.,PRN.,C.,H.,RIP.,1,
EDITEXP2=Microsoft Word RTF,2_XRTF,.,DOC.,RTF.,4,
EDITEXP3=CGM Image,2_XCGM,.,CGM.,GMF.,8,
EDITEXP4=TIFF 5.0 Image,2_XTIFF,.,TIF.,18,
EDITEXP5=Ami Pro,2_XW4W,W4W33T/V0,.,SAM.,2,
EDITEXP14=WordPerfect 5.1,2,_XW4W,W4W07T/V1,.,DOC.,2,
```

EDITEXP21=WordPerfect 6.0,2,_XW4W,W4W48T/V0,.DOC,,2,
EDITEXP22=WordPerfect 6.1,2,_XW4W,W4W48T/V1,.WPD,.WPT,.DOC,,2,
EDITEXP23=Word for Windows 6.0,2,_XW4W,W4W49T/V0,.DOC,,2,
DDETimeout=10
NAMEDSTYLE0=0300426173696300101010000A000000000
000100A0050A000006400A0050A00
00000940400000000000
NAMEDSTYLE0_FACE=Default Sans Serif
NAMEDSTYLE1=030042756C6C657400101010000A000000000
00000008070A00000640008070A00
00004940400000000000
NAMEDSTYLE1_FACE=Default Sans Serif
NAMEDSTYLE2=0300486561646C696E650010101010B0C00000000
000100A0050A000006400A0050A00
00000940400000000000
NAMEDSTYLE2_FACE=Default Sans Serif
DefaultMailTemplate=mail50.ntf
ServerTasks=Router
;ServerTasks=Router,Replica,Update,Amgr,AdminP,CalConn,Event,Sched,Stats,HTTP,DHOP,IMAP,POP3,maps
;ServerTasksAt1=Catalog,Design
;ServerTasksAt2=UpdAll,Object Collect mailobj.nsf
;ServerTasksAt3=Object Info -Full
;ServerTasksAt5=Statlog
TCPIP=TCP, 0, 15, 0
;LAN0ip=NETBIOS, 0, 15, 0
;VINES=VINES, 0, 15, 0
;SPX=NWSPX, 0, 15, 0
;AppleTalk=ATALK, 0, 15, 0
;LAN1=NETBIOS, 1, 15, 0
;LAN2=NETBIOS, 2, 15, 0
;LAN3=NETBIOS, 3, 15, 0
;LAN4=NETBIOS, 4, 15, 0
;LAN5=NETBIOS, 5, 15, 0
;LAN6=NETBIOS, 6, 15, 0
;LAN7=NETBIOS, 7, 15, 0
;LAN8=NETBIOS, 8, 15, 0
;COM1=XPC,1,15,0,
;COM2=XPC,2,15,0,
;COM3=XPC,3,15,0,
;COM4=XPC,4,15,0,
;COM5=XPC,5,15,0,
;Ports=TCPIP,LAN0ip
Ports=TCPIP
DisabledPorts=VINES,SPX,AppleTalk,LAN1,LAN2,LAN3,LAN4,LAN5,LAN6,LAN7,LAN8,COM1,COM2,COM3,COM4,COM5
LOG_REPLICATION=1
LOG_SESSIONS=0
KeyFilename=server.id
CertificateExpChecked=server.id 03/13/2001
CertifierIDFile=j:\notesr5\data\cert.id
MailServer=CN=sut/O=ibm
ServerKeyFileName=server.id
Domain=ibm
Admin=CN=administrator/O=ibm
TemplateSetup=62
Setup=60
ServerSetup=50
DESKWINDOWSIZE=-4 -4 1032 748
MAXIMIZED=1
CleanSetup=1
PhoneLog=2
Log=log.nsf, 1, 0, 7, 40000
TRANSLLOG_AutoFixup=1
TRANSLLOG_UseAll=0
TRANSLLOG_Style=0


```
TRANSLOG_Performance=2
TRANSLOG_Status=0
MTEEnabled=0
;-----
;-----
server_show_performance=1
mailuseprocesses=0
mailusethreads=1
DBMaxEntries=10000
Mail_Number_Of_mailBoxes=2
Max_users=10001
NSF_DBCache_MaxEntries=10000
Server_pool_tasks=100
Server_Max_Concurrent_Trans=1000
No_Force_Activity_Logging=1
DEBUG_OUTFILE=\\parent1\c$\results\sutinfo.txt
maillogtoeventonly=1
logmailrouting=10
```

NOTES.INI for Child 1

[Notes]

```
Directory=d:\notes\data
KitType=1
InstallType=6
;=====
NthIteration=6
Tmp=Notestmp
MaxSessions=100
NumAddLocalReplica=1
NumDeleteLocalReplica=1
NumStampLocalReplica=1
NumUpdateLocalReplica=1
NormalMessageSize=10000
NumMessageRecipients=3
NumMailNotesPerUser=100
AttachmentSize=500000
LargeMessageSize=32000
NodeName=nchild1
MailTemplate=mail50.ntf
USESERNAB=1
ResultsDirectory=\\parent1\c$\results
DEBUG_OUTFILE=\\parent1\c$\results\res1
NumNotesLocalReplica=90
NumSharedNotes=900
NormalMessageSize=10000
ThreadStagger=0.3
;=====
;=====
WinNTIconPath=d:\notes\data\W32
Timezone=5
DST=1
$$HasLANPort=1
WWWDSPP_SYNC_BROWSERCACHE=0
WWWDSPP_PREFETCH_OBJECT=0
EnableJavaApplets=1
EnablePlugins=1
Preferences=-2147480463
AltNameLanguage=en
ContentLanguage=en-US
WeekStart=1
ViewWeekStart=2
```


KeyFilename=nchild1.id
CertificateExpChecked=nchild1.id 03/13/2001
\$headlineClientId=D70EBA4B:A7A6A469-85256A0E:0072FB61
MailServer=CN=sut/O=ibm
MailFile=mail\nchild1.nsf
TemplateSetup=61
Setup=60
Location=Office (Network),9A2,CN=nchild1/O=ibm
\$IEVersionMajor=5
ECLSetup=3
DESKWINDOWSIZE=20 15 984 715
WINDOWSIZEWIN=20 15 984 715
MAXIMIZED=0
WinNTIconCommonConfig=Universal
WinNTIconSize=2
WinNTIconPos=2
WinNTIconHidden=1
WinNTIconRect=0 0 0 24
FileDlgDirectory=Y:\teton
NAMES=names.nsf
\$headlineDisableHeadlines=0
EmptyTrash=0
MIMEPromptMultilingual=1
MIMEMultilingualMode=1
EnableActiveXInBrowser=1
EnableJavaScript=1
EnableJavaScriptErrorDialogs=1
EnableLiveConnect=1
ShowAccelerators=1
DisableImageDithering=1
MaxDocToDelete=10000
PhoneLog=2
Log=log.nsf, 1, 0, 7, 40000

NOTES.INI for Parent Source Driver

[Notes]

```
;  
; Begin Notesbench variables for PARTITION 1  
;  
; *****  
NodeName=parent1  
; Runtime in minutes  
; for 13 nbs (530)  
Runtime=780  
  
ChildStagger=1,1;6,2;10,3;17,4;24,5;32,6;42,7;52,8;55,9;60,10;70,11;80,12;90,13  
  
NumClients1=1000  
NumClients2=1000  
NumClients3=1000  
NumClients4=1000  
NumClients5=1000  
NumClients6=1000  
NumClients7=1000  
NumClients8=1000  
NumClients9=1000  
NumClients10=1000  
NumClients11=1000  
NumClients12=1000  
NumClients13=800  
;NumClients14=600
```

```

;NumClients15=200
;NumClients16=700
;NumClients17=700
;NumClients18=100
; NumClients19=400
; NumClients20=100
ResultsDirectory=c:\results
DEBUG_OUTFILE=c:\results\notesnum.txt
;-----End
.*****
:
      Multirun Variables
.*****
; ProbeIntervalDelay=wait after end of one run before starting next
; ProbeWaitTime=wait to start Probe (default=15mins)
; ProbeRunTime=#minutes probe will collect stats
;;Probe_Interval=2800,2900,3000
;;ProbeIntervalDelay=30
;;ProbeWaitTime=30
;;ProbeRunTime=180
; ProbeRunTime=2 because we want 240 minutes of runtime after ramp-up
; without overhead of PROBE
; Next line cause command 'show stat' to execute on SUT console
; before start of each multi-run and when ramped up for that run
; Mail statistics required for audit at ramp-up and before ramp-down
;;ProbeTestIncrementCMD=show stat mail
;;ProbeTestIncrementCMD=show stat database
;;NBTestReset=1
.*****
;
      Server.Planner Variables
.*****
;;CPDatabase=c:\notesb3\data\Server.Planner.nsf
;;SUTMachineID=Teton600
;-----End
;-----End
Directory=c:\notes\data
KitType=1
InstallType=1
;-----
;-----
WinNTIconPath=c:\notes\data\W32
Timezone=5
DST=1
$$HasLANPort=1
WWWDSync_SYNC_BROWSERCACHE=0
WWWDSync_PREFETCH_OBJECT=0
EnableJavaApplets=1
EnablePlugins=1
Preferences=-2147480463
AltNameLanguage=en
ContentLanguage=en-US
WeekStart=1
ViewWeekStart=2
NavWeekStart=2
XLATE_CSID=52
SPELL_LANG=1033
Region=en-US
Passthru_LogLevel=0
Console_LogLevel=2
VIEWIMP1=Lotus 1-2-3 Worksheet,0_IWKSV,,WKS,.WK1,.WR1,.WRK,.WK3,.WK4,,4,
VIEWIMP3=Structured Text,0_ISTR,,LTR,.CGN,.STR,,1,
VIEWIMP4=Tabular Text,0_ITAB,,PRN,.RPT,.TXT,.TAB,,1,
VIEWEXP1=Lotus 1-2-3 Worksheet,0_XWKS,,WKS,.WK1,.WR1,.WRK,,4,
VIEWEXP3=Structured Text,0_XSTR,,LTR,.CGN,.STR,,1,
VIEWEXP4=Tabular Text,1_XTAB,,LTR,.RPT,.CGN,.TAB,,1,

```


WinNTIconCommonConfig=Universal
WinNTIconSize=2
WinNTIconPos=2
WinNTIconHidden=1
WinNTIconRect=0 0 0 24
FileDlgDirectory=Y:\teton
PhoneLog=2
Log=log.nsf, 1, 0, 7, 40000
ECLSetup=3
NAMES=names.nsf
\$headlineDisableHeadlines=0
EmptyTrash=0
MIMEPromptMultilingual=1
MIMEMultilingualMode=1
EnableActiveXInBrowser=1
EnableJavaScript=1
EnableJavaScriptErrorDialogs=1
EnableLiveConnect=1
ShowAccelerators=1

Appendix E: Network Configuration

The standard TCP/IP stack provided by Microsoft Windows 2000 Server was used.

In the system under test, the network adapter speed for the 10/100 Ethernet Server Adapter was changed from the default 'Auto' to 100Mbps. This forced the Duplex Mode to 'full'.

Appendix F: Guidelines for Information Usage

This report is intended for IBM Business Partners, customers, and IBM marketing and technical support personnel. The report may be distributed in accordance with the requirements stated in the Edition notice.

Appendix G: Pricing

The table provides the IBM Estimated Reseller Price to end users for the U.S. only. Actual Reseller prices may vary, and prices may also vary by country. Prices are subject to change without notice. For additional information and current prices, contact your local IBM representative.

Note: Lotus Domino Server ships with the xSeries 240 at no charge.

Item Description	Order Number	Qty	IBM Estimated Reseller Unit Price	IBM Estimated Reseller Extended Price
IBM @server xSeries 240	8664-81Y	1	\$3,662	\$3,662
1GHz / 256KB L2 Cache Processor Upgrade	10K0051	1	1,299	1,299
1GB 133MHz ECC SDRAM RDIMM Memory	33L3064	4	2,596	10,384
ServeRAID-4L Ultra160 SCSI Adapter	37L6091	1	745	745
ServeRAID-4M Ultra160 SCSI Adapter	37L6080	2	1,435	2,870
9.1GB 10K Ultra160 SCSI Hard Disk Drives	37L7204	3	299	897
18.2GB 10K Ultra160 SCSI Hard Disk Drives	37L7205	28	467	13,076
EXP300 Rack Storage Expansion Enclosure	35311RU	2	3,179	6,358
10/100 Ethernet Server Adapter	06P3601	1	99	99
E54 15" (13.8" Viewable) Color Monitor	6331N2N	1	168	168
Software				
Windows 2000 Server		1	738	738
Lotus Domino R5 Server (shipped with server)		1	NC	
Total System Price				\$40,296

Appendix H: Vendor-Defined Information

None.

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