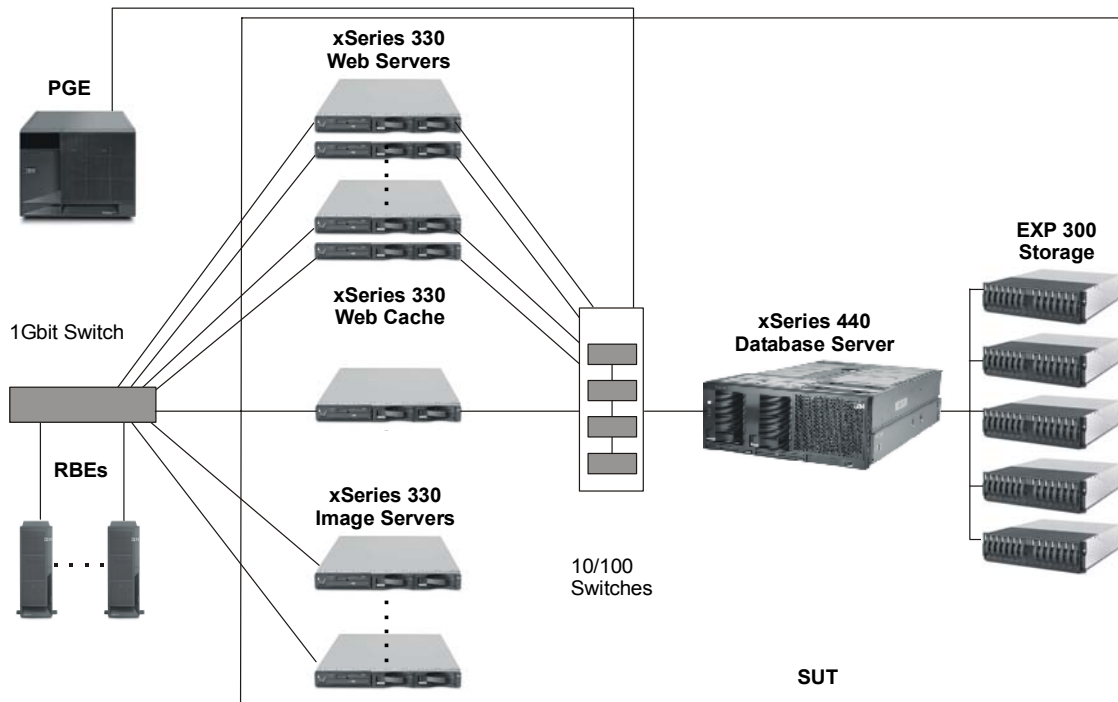
	<b>IBM @server xSeries 440 with xSeries 330 using Microsoft SQL Server 2000</b>	<b>TPC-W Version 1.7</b>
		<b>Report Date: Mar. 11, 2002</b>
<b>Price Performance</b> \$33.92 WIPS@10,000	<b>Performance</b> 9666.0 WIPS @10,000	<b>Available</b> Sept. 10, 2002
<b>Total Cost</b> \$327,908	<b>WIPSo@10,000</b> 1256.4	<b>WIPSp@10,000</b> 8625.2
<b>Scale</b> 10,000 Items	<b>Number of Users</b> 75,000	<b>Number of Systems</b> 25
<b>Web Server</b> Microsoft Corporation Internet Information Server 5.0	<b>Application Server</b> Microsoft ISAPI	<b>Image Server</b> Microsoft Corporation Internet Information Server 5.0
<b>Database Manager</b> Microsoft SQL Server 2000	<b>Load Balancer</b> Microsoft DNS	<b>Web Cache</b> Volera Excelerator 2.1

**Other Software:** Microsoft Windows 2000 Indexing Services



Function	System	# of Systems	Operating System	Processors	Memory
Web Server	xSeries 330	15	Windows 2000 Server	2 Pentium III 1.26GHz/512KB	768MB
Web Server / Other Software	xSeries 330	1	Windows 2000 Server	2 Pentium III 1.26GHz/512KB	768MB
Image Server	xSeries 330	6	Windows 2000 Server	2 Pentium III 1.26GHz/512KB	512MB
Image Server / Load Balancer	xSeries 330	1	Windows 2000 Server	2 Pentium III 1.26GHz/512KB	512MB
Database Server	xSeries 440	1	Windows 2000 Advanced Server	4 Xeon MP 1.6GHz/1MB	4GB
Web Cache	xSeries 330	1	Volera Excelerator 2.1	1 Pentium III 1.26GHz/512KB	2GB



**@server xSeries 440 with @server xSeries 330  
using Microsoft SQL Server 2000**

TPC-W Rev. 1.7

Report Date:  
Mar. 11, 2002

**Price Performance**

**Performance**

**Availability Date**

\$33.92 per WIPS@10,000

9666.0 WIPS@10,000

Sept. 10, 2002

Description	Part No.	Third Party		Unit Price	Qty.	Extended Price	3 yr.Maint. Price
		Brand	Price				
<b>Web/Application/Image Server Hardware</b>							
xSeries 330 w/1.26GHz/512KB Pentium III	8674-31X	IBM	1	\$1,729	24	\$41,496	\$10,800
1.26GHz Pentium III Processor	25P2836	IBM	1	999	23	20,979	0
256MB 133MHz ECC SDRAM RDIMM	10K0020	IBM	1	245	39	9,800	0
512MB 133MHz ECC SDRAM RDIMM	10K0022	IBM	1	499	4	1,996	0
18.2GB 15K Ultra160 SCSI Drive	06P5767	IBM	1	549	39	21,411	0
20/40 DDS/4 4mm SCSI Internal Tape Drive	00N7991	IBM	1	769	1	769	0
E54 15" (13.8" Viewable) Color Display	633147N	IBM	1	149	1	149	90
Intel PRO/1000 T Adapter	22P6501	Intel	1	99	24	2,376	0
NetBAY42 Rack Standard Expansion Cabinet	9306421	IBM	1	1,610	1	1,610	300
<b>Software</b>							
Microsoft Windows 2000 Server	C11-00821	Microsoft	2	738	23	16,974	incl. below
Volera Excelerator 2.1 (for 2GB)	993-000005-001	Volera	3	17,995	1	17,995	
3-Years of Volera Technical Support (7x24)	051-001230-001	Volera	3	4,499	3		13,497
<b>Subtotal</b>						<b>\$137,308</b>	<b>\$24,687</b>
<b>Database Server Hardware</b>							
xSeries 440 w/1.6GHz/1MB Xeon MP	8687-3RX	IBM	1	\$27,099	1	\$27,099	\$3,390
1.6GHz/1MB Xeon MP Processor	32P8707	IBM	1	6,599	2	13,198	0
512MB ECC SDRAM RDIMM	33L3324	IBM	1	499	8	3,992	0
Mylex eXtremeRAID 2000 Adapter (+2)	08P3834		4	1,302	5	6,510	0
18.2GB 15K Ultra160 SCSI Drive	06P5767	IBM	1	549	58	31,842	0
36.4GB 15K Ultra160 SCSI Drive	06P5768	IBM	1	989	14	13,846	0
20/40 DDS/4 4mm SCSI Internal Tape Drive	00N7991	IBM	1	769	1	769	0
E54 15" (13.8" Viewable) Color Display	6331N2N	IBM	1	149	1	149	90
EXP300 Storage Expansion Enclosure	35311RU	IBM	1	3,179	5	15,895	1,000
NetBAY42 Rack Standard Expansion Cabinet	9306421	IBM	1	1,610	1	1,610	300
<b>Software</b>							
Microsoft SQL Server 2000 Enterprise Edition	228-00968	Microsoft	2	16,541	4	66,164	
Microsoft Windows 2000 Advanced Server	C10-00475	Microsoft	2	2,399	1	2,399	
Visual C++ Professional 6.0	048-00317	Microsoft	2	549	1	549	
3-Year Maintenance for Microsoft Software		Microsoft	2	2,095	3		6,285
<b>Subtotal</b>						<b>\$184,022</b>	<b>\$11,065</b>
<b>Connectivity</b>							
8-Port 10/100Mbps Ethernet Switch (+10%)	DSS-8		5		47	329	\$0
<b>Subtotal</b>						<b>\$329</b>	
<b>Total</b>						<b>\$321,659</b>	<b>\$35,752</b>
<b>Large volume discount of 14% on IBM hardware; prices will vary if purchased separately.</b>						<b>(\$29,503)</b>	
<b>3rd Party Brand:</b>							
1:IBM, 2: Microsoft, 3: Volera, 4: Computer Giants; 5: ShopNet.com							
<b>3-Year Cost of Ownership</b>						<b>\$327,908</b>	
<b>3rd Party Pricing:</b>							
WIPS@10,000						<b>9666.0</b>	
1: IBM, 2: Microsoft, 3: Volera, 4: Computer Giants; 5: ShopNet.com							
\$ / WIPS@10,000						<b>\$33.92</b>	

**Independently Audited by: Francois Raab InfoSizing, Inc.**



@server xSeries 440 with @server xSeries 330  
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### Numerical Quantities Summary

#### WIPS Interaction Summary

Interaction	Mix	Count	90% Response
Home	16.00	2,784,634	0.7
Shopping Cart	11.59	2,016,869	0.6
Customer Registration	3.00	521,175	0.1
Buy Request	2.60	451,878	0.7
Buy Confirm	1.20	208,569	2.9
Order Inquiry	0.75	130,481	0.6
Order Display	0.66	114,917	0.7
Search Request	20.00	3,480,205	0.6
Search Results	17.00	2,958,385	1.4
New Products	5.00	870,382	1.4
Best Sellers	5.00	870,264	1.6
Product Detail	17.01	2,958,788	0.2
Admin. Request	0.10	17,023	0.6
Admin. Confirm	0.09	15,305	3.2

#### Measurement Intervals Summary

	Shopping	Browsing	Ordering
Ramp-up Time (min.)	68 Min 22sec	74 Min 18s	23 Min 54sec
Length of Measurement Interval (min.):	30 Minutes	30 Minutes	30 Minutes
Average Think Time (sec.)	7.46	7.5	7.02
Average User Session Duration (min.):	14.95 Min	14.96 Min	14.95 Min
Number of Users	75,000	66,348	10,000