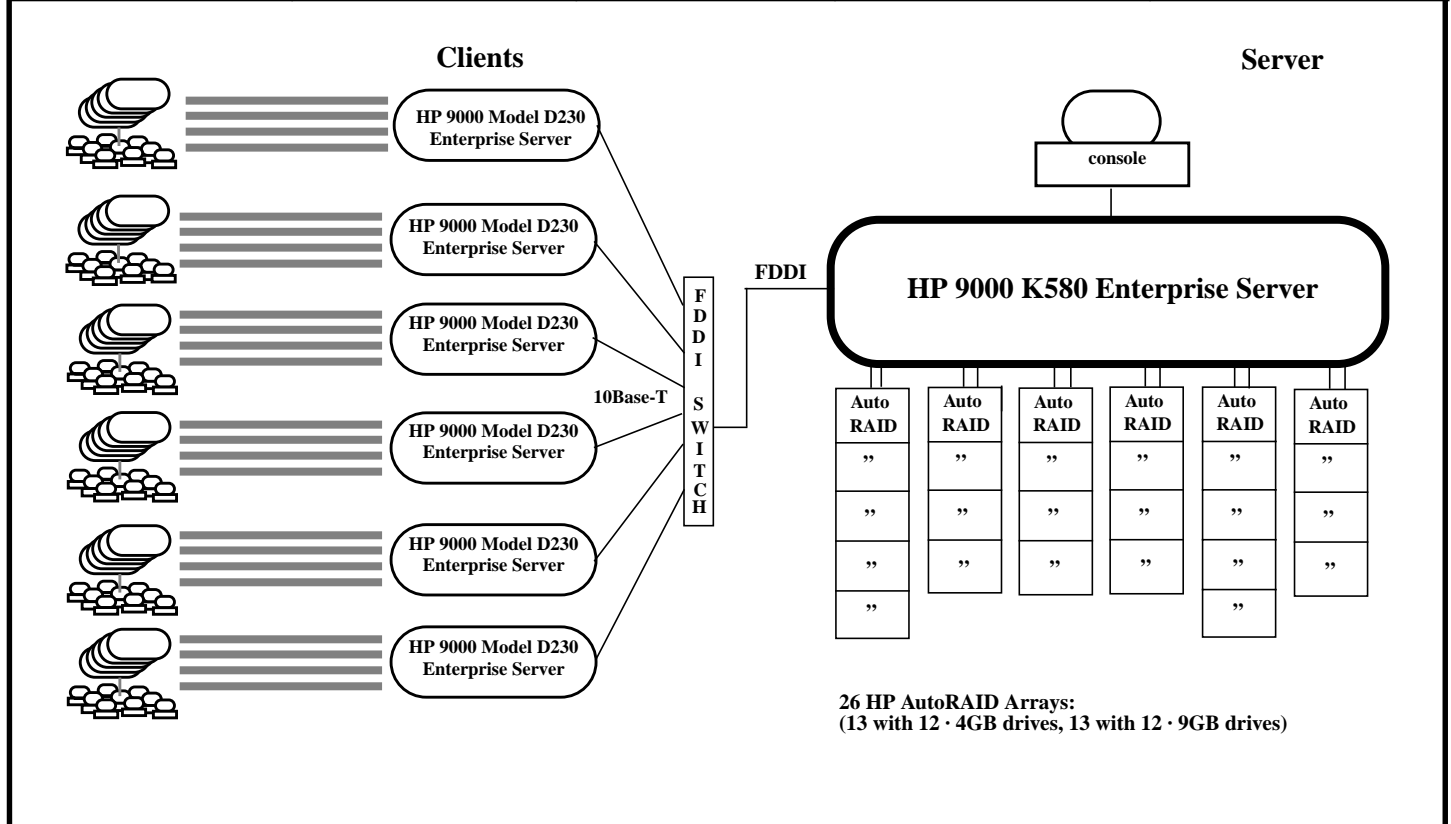


<b>Hewlett-Packard Co.</b>	<b>HP 9000 K580 Enterprise Server Client/Server with 6 D230 front-ends</b>		TPC-C <sup>®</sup> Rev 3.3.3
			Report Date: May 13, 1998
Total System Cost	TPC-C <sup>®</sup> Throughput	Price/Performance	Availability Date
<b>\$1,943,661</b>	<b>25,363.03 tpmC<sup>®</sup></b>	<b>\$76.64 / tpmC<sup>®</sup></b>	<b>August 13, 1998</b>
Processors	Database Manager	Operating System	Other Software
6 PA-RISC 8200 240 MHz	Sybase Adaptive Server Enterprise 11.5 EBF 7817	HP-UX 11.00 64-bit Extension Pack 9808	TUXEDO Transaction Monitor 4.2.2
			Number of Users
			<b>21,000</b>



System Components	Server (K580)		Each Client of 6 (D230)	
	Qty	Type	Qty	Type
Processors	6	240 MHz PA-RISC 8200	1	160 MHz PA-RISC 7300LC
Memory	8	2 MB I-cache, 2 MB D-cache	1	1 MB combined L2 cache
Disk Controllers	8	GB	768	MB
Disk Drives	6	HP-HSC FWD SCSI-2	1	HP-HSC FWD SCSI-2
Total Storage (GB)	26	HP AutoRAID Arrays	1	4 GB Disk
Tape Drives	1,597	GB	4	GB
Terminals	1	DDS Storage System	1	Console terminal
	1	Console terminal		

Hardware and Software Pricing

Description	Part Number	3d Party		Unit Price	Qty.	Extended Price	5 Year Maint. \$
		Brand	\$				
<b>Server Hardware</b>							
Hewlett Packard 9000 Model K580	A4837A		1	70,007	1	70,007	21,792
Upgrade base memory to 512 MB	A3747A		1	6,424	1	6,424	
Add'l PA RISC 8200 CPUs	A4872A		1	18,250	5	91,250	15,060
HP-UX Sys. Media, CD-ROM, Mat'ls	B3920EA Opt. AAF		1	380	1	380	
512 MB ECC Memory Board	A3737A Opt 0D1		1	6,354	15	95,310	
4 GB DAT Storage System (internal)	A3183A Opt. 0DZ		1	1,205	1	1,205	
700/96 Console	C1064GX		1	393	1	393	108
Memory carrier	A2992A		1	3,614	1	3,614	
Add 4 HP-HSC slots	A3695A		1	5,840	1	5,840	
FDDI Interface Card	J2157B Opt. AU3		1	4,157	1	4,157	
HP-HSC Fast/Wide Differential SCSI Int.	A2969A		1	945	5	4,725	
Auto Raid disk Array Model 12H	A3700A		1	4,453	26	115,778	124,735
Two 96 MB controllers with Auto Raid	Opt. 203		1	13,432	26	349,232	
Twelve 4 GB disk modules	Option 112		1	10,512	13	136,656	
Twelve 9 GB disk modules	Option 132		1	16,206	13	210,678	
3.0 kVA UPS Rackmount	A2998A Opt. 002		1	4,709	10	47,090	1,940
16 port RS-232 MUX	J2092AZ Opt. 0DZ		1	1,577	1	1,577	
1.6m Field Integrated Cabinet	C2786A		1	1,318	9	11,862	
Fast/Wide SCSI Interface Cable(2.5m)	C2924A		1	102	6	612	
Fast/Wide SCSI Interface Cable(0.9m)	C2911A		1	88	20	1,760	
<b>Subtotal</b>						<b>1,158,550</b>	<b>163,635</b>
<b>Server Software</b>							
Sybase Adaptive Server V11.5	Runtime	Sybase	2	150,000	1	150,000	128,316
Sybase development		Sybase	2	9,600	1	9,600	
Sybase open client		Sybase	2	795	1	795	
Sybase discount		Sybase	2			-8,020	
<b>Subtotal</b>						<b>152,375</b>	<b>128,316</b>
<b>Client Hardware</b>							
HewlettPackard 9000 Model D230 Client	A3574A		1	4,052	6	24,312	14,551
1 MB cache	A3586A Opt. 0D1		1	1,460	6	8,760	
Console	C1064GX		1	393	6	2,358	648
4 GB internal disk	A3643A Opt0D1		1	949	6	5,694	3,048
10Base-T Lan Card	A3658A		1	580	24	13,920	
256 MB Memory Module	A3564A		1	2,482	18	44,676	
<b>Subtotal</b>						<b>99,720</b>	<b>18,247</b>
<b>Client Software</b>							
HP C/ANSI C Compiler	B3901BA, Option AH0		1	1,150	1	1,150	1,029
BEA Tuxedo 4.2		BEA	3	9,000	6	54,000	40,500
<b>Subtotal</b>						<b>55,150</b>	<b>41,529</b>
<b>User Connectivity</b>							
10Base-T Hub (8 RJ45, 1 BNC), 264 spares	DEH2924	Compex	4	35.85	2904	104,108	
LANPLEX 2500 Chassis	3C250100A	3COM	5	6,095	1	6,095	5,485
8-port 10 base T module	3C201000	3COM	5	2,800	1	2,800	2,520
FDDI module	3C200100	3COM	5	2,700	1	2,700	2,430
<b>Subtotal</b>						<b>115,703</b>	<b>10,435</b>
<b>Total</b>						<b>1,581,499</b>	<b>362,162</b>
<b>Notes:</b>				<b>Five Year Cost:</b>		<b>\$1,943,661</b>	
1=Sun Data Corporation, 2=Sybase, 3=BEA Systems,				<b>tpmC Rating:</b>		<b>25,363.03</b>	
4=DataComm Warehouse, 5=3COM				<b>\$/tpmC:</b>		<b>\$76.64</b>	

Prices used in TPC benchmarks reflect the actual prices a customer would pay for a one-time purchase of the stated components. Individually negotiated discounts are not permitted. All discounts reflect standard pricing policies for the listed components. For complete details, see the pricing sections of the TPC benchmark specifications. If you find that the stated prices are not available according to these terms, please inform the TPC at <pricing@tpc.org>. Thank you.

Note: audited by Richard Gimarc of Performance Metrics, Inc.