

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

For the quarterly period ended July 27, 2002

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

For the transition period from _____ to _____

Commission file number: 000-25601

BROCADE COMMUNICATIONS SYSTEMS, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation)

77-0409517
(I.R.S. employer identification no.)

1745 Technology Drive
San Jose, CA 95110
(408) 487-8000

(Address, including zip code, of Registrant's
principal executive offices and telephone
number, including area code)

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

The number of shares outstanding of the Registrant's Common Stock on July 27, 2002 was 234,214,463 shares.

TABLE OF CONTENTS

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

CONDENSED CONSOLIDATED BALANCE SHEETS

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Item 3. Quantitative and Qualitative Disclosures About Market Risk

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

Item 2. Changes in Securities and Use of Proceeds

Item 6. Exhibits and Reports on Form 8-K

SIGNATURES

EXHIBIT 10.37

EXHIBIT 10.38

EXHIBIT 10.39

EXHIBIT 10.40

EXHIBIT 10.41

EXHIBIT 10.42

EXHIBIT 10.43

EXHIBIT 10.44

EXHIBIT 10.45

EXHIBIT 12.1

EXHIBIT 99.1

BROCADE COMMUNICATIONS SYSTEMS, INC.

FORM 10-Q

QUARTER ENDED JULY 27, 2002

INDEX

	Page
PART I — FINANCIAL INFORMATION	
Item 1. Financial Statements	
Condensed Consolidated Statements of Operations for the Three and Nine Months Ended July 27, 2002 and July 28, 2001	3
Condensed Consolidated Balance Sheets as of July 27, 2002 and October 27, 2001	4
Condensed Consolidated Statements of Cash Flows for the Nine Months Ended July 27, 2002 and July 28, 2001	5
Notes to Condensed Consolidated Financial Statements	6
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	13
Item 3. Quantitative and Qualitative Disclosures About Market Risk	26
PART II — OTHER INFORMATION	
Item 1. Legal Proceedings	27
Item 2. Changes in Securities and Use of Proceeds	27
Item 6. Exhibits and Reports on Form 8-K	28
SIGNATURES	31

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements

BROCADE COMMUNICATIONS SYSTEMS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)
(unaudited)

	Three Months Ended		Nine Months Ended	
	July 27, 2002	July 28, 2001	July 27, 2002	July 28, 2001
Net revenues	\$151,234	\$116,279	\$409,262	\$396,509
Cost of revenues	60,299	46,484	162,950	158,611
Gross margin	90,935	69,795	246,312	237,898
Operating expenses:				
Research and development	33,209	27,419	95,523	81,952
Sales and marketing	30,338	22,599	82,722	69,632
General and administrative	4,756	4,387	14,139	13,373
Amortization of deferred stock compensation	243	280	727	840
Total operating expenses	68,546	54,685	193,111	165,797
Income from operations	22,389	15,110	53,201	72,101
Interest and other income, net	6,827	2,098	16,823	8,654
Interest expense	(3,387)	—	(8,057)	—
Income before provision for income taxes	25,829	17,208	61,967	80,755
Provision for income taxes	7,481	5,163	17,970	24,227
Net income	\$ 18,348	\$ 12,045	\$ 43,997	\$ 56,528
Net income per share — Basic	\$ 0.08	\$ 0.05	\$ 0.19	\$ 0.26
Net income per share — Diluted	\$ 0.08	\$ 0.05	\$ 0.18	\$ 0.23
Shares used in per share calculation — Basic	233,017	222,863	230,819	219,619
Shares used in per share calculation — Diluted	240,106	246,219	244,672	244,272

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

BROCADE COMMUNICATIONS SYSTEMS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except par value)

	July 27, 2002	October 27, 2001
	(unaudited)	
Assets		
Current assets:		
Cash and cash equivalents	\$ 195,784	\$ 150,118
Short-term investments	76,723	105,030
	<u>272,507</u>	<u>255,148</u>
Marketable equity securities	193	332
Accounts receivable, net of allowances of \$3,563 and \$3,025, respectively	87,857	68,900
Inventories, net	7,064	10,307
Deferred tax assets, net	29,386	28,025
Prepaid expenses and other current assets	15,910	10,022
	<u>412,917</u>	<u>372,734</u>
Total current assets	412,917	372,734
Long-term investments	609,802	—
Property and equipment, net	138,193	97,457
Deferred tax assets, net	219,385	207,209
Convertible subordinated debt issuance costs	10,891	—
Other assets	9,401	6,322
	<u>\$1,400,589</u>	<u>\$683,722</u>
Total assets	\$1,400,589	\$683,722
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 58,292	\$ 25,082
Accrued employee compensation	19,412	21,994
Deferred revenue	18,332	12,630
Current liabilities associated with lease losses	9,291	11,339
Other accrued liabilities	52,881	43,895
	<u>158,208</u>	<u>114,940</u>
Total current liabilities	158,208	114,940
Non-current liabilities associated with lease losses	23,963	30,896
Convertible subordinated debt	550,000	—
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, \$0.001 par value		
5,000 shares authorized, no shares outstanding	—	—
Common stock, \$0.001 par value, 800,000 shares authorized:		
Issued and outstanding: 234,214 and 229,762 shares at July 27, 2002 and October 27, 2001, respectively	234	230
Additional paid-in capital	569,929	493,738
Deferred stock compensation	(311)	(1,038)
Accumulated other comprehensive income	10,135	522
Retained earnings	88,431	44,434
	<u>668,418</u>	<u>537,886</u>
Total stockholders' equity	668,418	537,886
Total liabilities and stockholders' equity	<u>\$1,400,589</u>	<u>\$683,722</u>

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

BROCADE COMMUNICATIONS SYSTEMS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Nine Months Ended	
	July 27, 2002	July 28, 2001
Cash flows from operating activities:		
Net income	\$ 43,997	\$ 56,528
Adjustments to reconcile net income to net cash provided by operating activities:		
Tax benefits from employee stock option transactions	26,200	123,523
Deferred taxes	(20,293)	(105,830)
Depreciation, amortization, and loss on disposal of property and equipment	22,734	11,407
Amortization of debt issuance costs	1,484	—
Gain on sale of marketable equity securities	—	(6,632)
Impairment losses on investments	—	4,700
Provision for doubtful accounts receivable and sales returns	1,700	1,145
Non-cash compensation expense	727	857
Changes in operating assets and liabilities:		
Accounts receivable	(20,657)	(1,282)
Inventories	3,243	(7,183)
Prepaid expenses and other assets	(8,967)	(9,378)
Accounts payable	33,210	1,460
Accrued employee compensation	(2,582)	(13,212)
Deferred revenue	5,702	11,340
Other accrued liabilities	8,986	13,397
Liabilities associated with lease losses	(5,580)	—
Net cash provided by operating activities	<u>89,904</u>	<u>80,840</u>
Cash flows from investing activities:		
Purchases of property and equipment	(65,179)	(63,599)
Purchases of investments	(640,777)	(23,195)
Proceeds from maturities of short-term investments	74,098	57,690
Proceeds from sale of marketable equity securities	—	11,632
Other investing activities	—	(17,062)
Net cash used in investing activities	<u>(631,858)</u>	<u>(34,534)</u>
Cash flows from financing activities:		
Proceeds from issuance of common stock, net	49,995	73,806
Proceeds from issuance of convertible subordinated debt	537,625	—
Net cash provided by financing activities	<u>587,620</u>	<u>73,806</u>
Net increase in cash and cash equivalents	45,666	120,112
Cash and cash equivalents, beginning of period	150,118	27,265
Cash and cash equivalents, end of period	<u>\$ 195,784</u>	<u>\$ 147,377</u>

The accompanying notes are an integral part of these Condensed Consolidated Financial Statements.

BROCADE COMMUNICATIONS SYSTEMS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. Organization and Operations of Brocade

Brocade Communications Systems, Inc. (Brocade or the Company) is the world's leading provider of infrastructure for Storage Area Networks (SANs), offering a product family of Fibre Channel fabric switches which provide an intelligent networking foundation for SANs. Brocade delivers products and provides education and services that allow companies to implement highly available, scalable, manageable, and secure environments for business-critical applications. The Brocade SilkWorm family of Fibre Channel fabric switches enables customers to create a high-performance SAN fabric that is highly reliable and scalable to support the interconnection of server and storage devices, providing investment protection for the customer. Brocade products are sold through original equipment manufacturer (OEM) partners, master resellers and fabric partners.

Brocade was incorporated on May 14, 1999 as a Delaware corporation and is the successor to operations originally begun on August 24, 1995. The Company's headquarters are located in San Jose, California.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial data as of July 27, 2002, and for the three and nine-month periods ended July 27, 2002 and July 28, 2001, have been prepared by the Company, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to such rules and regulations. The October 27, 2001 Condensed Consolidated Balance Sheet was derived from audited consolidated financial statements, but does not include all disclosures required by generally accepted accounting principles. However, the Company believes that the disclosures are adequate to make the information presented not misleading. These Condensed Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended October 27, 2001.

In the opinion of management, all adjustments (which include only normal recurring adjustments) necessary to present a fair statement of financial position as of July 27, 2002, results of operations for the three and nine-month periods ended July 27, 2002 and July 28, 2001, and cash flows for the nine-month periods ended July 27, 2002 and July 28, 2001, have been made. The results of operations for the three and nine-month periods ended July 27, 2002 are not necessarily indicative of the operating results for the full fiscal year or any future periods.

Cash, Cash Equivalents, Short-term Investments and Long-term Investments

The Company considers all highly liquid investment securities with original maturities of three months or less to be cash equivalents. Investment securities with original maturities of more than three months but less than one year are considered short-term investments. Investment securities with original maturities of one year or more are considered long-term investments. The Company's investments consist of debt securities issued by United States government agencies. All investments are classified as available-for-sale. Unrealized gains and losses are included in accumulated other comprehensive income in the accompanying Condensed Consolidated Balance Sheets, net of any related tax effect.

Marketable Equity Securities and Other Investments

Marketable equity securities consist of equity holdings in public companies and are classified as available-for-sale when there are no restrictions on the Company's ability to immediately liquidate such securities. The fair value of marketable equity securities is determined using quoted market prices for those securities. Unrealized gains and losses are included in accumulated other comprehensive income in the accompanying Condensed Consolidated Balance Sheets, net of any related tax effect. Realized gains and losses are calculated based on the specific identification method and are included in interest and other income, net in the Condensed Consolidated Statements of Operations.

The Company also has certain other minority equity investments in non-publicly traded companies. These investments are

[Table of Contents](#)

included in other assets in the accompanying Condensed Consolidated Balance Sheets, are carried at cost, and are accounted for under the cost method. The Company holds less than 20 percent of the voting equity of such companies, and neither has nor seeks control or significant influence over the respective company's operating and financial policies. The Company monitors its investments for impairment on a quarterly basis and makes appropriate reductions in carrying values when such impairments are determined to be other-than-temporary. Factors used in determining an impairment include, but are not limited to, the current business environment including competition and uncertainty of financial condition; going concern considerations such as the inability to obtain additional private financing to fulfill the investee company's stated business plan and cash burn rate; the need for changes to the respective investee company's existing business model due to changing business environments and its ability to successfully implement necessary changes; and comparable valuations. If an investment is determined to be impaired, a determination is made as to whether such impairment is other-than-temporary.

For the three and nine-month periods ended July 28, 2001, the Company recorded impairment charges of \$1.2 million and \$4.7 million, respectively, related to other-than-temporary declines in the fair value of certain minority equity investments in non-publicly traded companies. The impairment charges reduced the carrying value of the Company's investments to the estimated fair value. The impairment charges are included in interest and other income, net in the accompanying Condensed Consolidated Statements of Operations. No impairment charges were recorded for the three and nine-month periods ended July 27, 2002. As of July 27, 2002, and October 27, 2001, the carrying value of the Company's minority equity investments in non-publicly traded companies was \$2.2 million.

Notes Receivable from Non-Executive Employees

The Company occasionally provides loans to various employees generally related to the respective employees' relocation to the San Francisco Bay area in connection with their employment with the Company. The loans are generally evidenced by secured promissory notes to the Company and bear interest at prevailing rates. Notes receivable from employees are included in prepaid expenses and other current assets, and other assets in the accompanying Condensed Consolidated Balance Sheets. None of these loans have been issued to executive officers.

Revenue Recognition

Product revenue. Product revenue is generally recognized when persuasive evidence of an arrangement exists, delivery has occurred, fee is fixed or determinable, and collectibility is probable. However, revenue recognition is deferred for shipments to new customers and for shipments to existing customers when significant support services are required to successfully integrate Brocade products into the customer's products. These revenues, and related costs, are deferred and recognized when the customer has successfully integrated Brocade products into its product offerings and Brocade has met any support obligations. In addition, revenue from sales to master resellers is recognized upon reported sell-through.

Service Revenue. Service revenue, which to date has not been material, consists of training, warranty, and maintenance arrangements, including post-contract customer support (PCS) services. PCS services are offered under renewable, annual fee-based contracts or as part of multiple element arrangements and typically include upgrades and enhancements to the Company's software operating system, and telephone support. For multiple element arrangements, the Company allocates revenue to each element based upon vendor-specific objective evidence (VSOE). VSOE for each element is based upon the price charged when the element is sold separately. Service revenue, including revenue allocated to undelivered elements, is deferred and recognized ratably over the contractual period, which is generally one to three years. Training revenue is recognized upon completion of the training.

The Company accrues for warranty costs and reduces revenue for estimated sales returns and other allowances at the time of shipment. Warranty costs, sales returns and other allowances are estimated based upon historical experience.

Computation of Net Income per Share

Basic net income per share is computed using the weighted-average number of common shares outstanding during the period, less shares subject to repurchase. Diluted net income per share is computed using the weighted-average number of common and dilutive potential common shares outstanding during the period. Dilutive potential common shares result from the assumed exercise of outstanding stock options that have a dilutive effect on earnings per share, and from the assumed conversion of outstanding convertible debt if it has a dilutive effect on earnings per share.

Concentrations

[Table of Contents](#)

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash equivalents, short-term and long-term investments, and accounts receivable. Cash, cash equivalents, and short-term and long-term investments are primarily maintained at four major financial institutions in the United States. Deposits held with banks may exceed the amount of insurance provided on such deposits. Generally, these deposits may be redeemed upon demand. The Company generally invests in United States government agency debt securities and limits the amount of credit exposure to any one entity. During the nine months ended July 27, 2002, the Company invested \$640.8 million, primarily consisting of the proceeds from its convertible debt offering, in debt securities of three separate United States government agencies.

For the quarters ended July 27, 2002 and July 28, 2001, four and three customers each contributed greater than 10 percent of the Company's total revenues, for combined totals of 76 percent and 54 percent of total revenues, respectively. For the nine-month periods ended July 27, 2002 and July 28, 2001, four and two customers each contributed greater than 10 percent of the Company's total revenues, for combined totals of 73 percent and 48 percent of total revenues, respectively. The level of sales to any single customer may vary and the loss of any one of these customers, or a decrease in the level of sales to any one of these customers, could have a material adverse impact on the Company's financial condition or results of operations.

A majority of the Company's trade receivable balance is derived from sales to OEM partners in the computer storage and server industry. As of July 27, 2002, and October 27, 2001, 72 percent and 76 percent of accounts receivable, respectively, were concentrated with five customers. The Company performs on-going credit evaluations of its customers and generally does not require collateral on accounts receivable. The Company has established reserves for credit losses and sales returns and other allowances. The Company has not experienced material credit losses in any of the periods presented.

The Company's business is concentrated in the storage area networking industry, which has been impacted by unfavorable economic conditions and reduced information technology (IT) spending rates. Accordingly, the Company's future success depends upon the buying patterns of customers in the storage area networking industry, their response to current and future IT investment trends, and the continued demand by such customers for the Company's products. The Company's continued success will depend upon its ability to enhance its existing products and to develop and introduce, on a timely basis, new cost-effective products and features that keep pace with technological developments and emerging industry standards.

Comprehensive Income

The components of comprehensive income, net of tax, are as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	July 27, 2002	July 28, 2001	July 27, 2002	July 28, 2001
Net income	\$18,348	\$12,045	\$43,997	\$ 56,528
Other comprehensive income:				
Change in net unrealized gains (losses) on marketable equity securities and investments	9,241	(786)	9,613	(30,666)
Reclassification adjustment for gains previously included in net income	—	632	—	4,642
Total comprehensive income	\$27,589	\$11,891	\$53,610	\$ 30,504

Reclassifications

Certain prior year amounts have been reclassified to conform to the current year presentation.

Recent Accounting Pronouncements

In October 2001, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 144 "Accounting for the Impairment or Disposal of Long-Lived Assets" (SFAS 144). SFAS 144 supersedes SFAS No. 121 "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of" (SFAS 121), and certain provisions of APB Opinion No. 30 "Reporting the Results of Operations-Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions" (APB 30). SFAS 144 establishes standards for long-lived assets to be disposed of, and redefines the valuation and presentation of discontinued operations. SFAS 144 is effective for fiscal years beginning after December 15, 2001, and interim periods within those fiscal years. Management does not expect the adoption of SFAS 144 to have a material effect on the Company's financial position, results of operations, or cash flows.

3. Fair Value of Financial Instruments

The following tables summarize the Company's available-for-sale securities (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
July 27, 2002				
U.S. government agency debt securities	\$669,479	\$17,046	\$ —	\$686,525
Marketable equity securities	347	—	(154)	193
Total	<u>\$669,826</u>	<u>\$17,046</u>	<u>\$(154)</u>	<u>\$686,718</u>
Reported as:				
Short-term investments				\$ 76,723
Marketable equity securities				193
Long-term Investments				609,802
Total				<u>\$686,718</u>
October 27, 2001				
U.S. government agency debt securities	\$104,493	\$ 537	\$ —	\$105,030
Marketable equity securities	347	24	(39)	332
Total	<u>\$104,840</u>	<u>\$ 561</u>	<u>\$(39)</u>	<u>\$105,362</u>
Reported as:				
Short-term investments				\$105,030
Marketable equity securities				332
Total				<u>\$105,362</u>

No gains or losses were realized for the three and nine-month periods ended July 27, 2002. For the three and nine-month periods ended July 28, 2001, gross gains of \$0.9 million and \$6.6 million, respectively, were realized on the sale of marketable equity securities and are included in interest and other income, net in the accompanying Condensed Consolidated Statements of Operations. As of July 27, 2002, and October 27, 2001, net unrealized holding gains of \$16.9 million and \$0.5 million, respectively, were included in accumulated other comprehensive income in the accompanying Condensed Consolidated Balance Sheets, net of any related tax effect.

The following table summarizes maturities of the Company's investments in debt securities issued by United States government agencies as of July 27, 2002 (in thousands):

	Amortized Cost	Fair Value
Less than one year	\$ 76,275	\$ 76,723
Due in 1 - 2 years	46,031	47,151
Due in 2 - 3 years	547,173	562,651
Total	<u>\$669,479</u>	<u>\$686,525</u>

4. Liabilities Associated with Facilities Lease Losses

During the quarter ended October 27, 2001, the Company recorded a charge of \$39.8 million related to estimated facilities lease losses, net of expected sublease income, and a charge of \$5.7 million in connection with the impairment of certain related leasehold improvements. These estimated charges represented the low-end of an estimated range that may be adjusted upon the occurrence of future triggering events. Under certain circumstances, the high-end of this range was estimated to be \$63.0 million. Triggering events may include, but are not limited to, changes in estimated time to sublease the facilities, sublease terms, and sublease rates.

During the quarter ended July 27, 2002, the Company revised certain estimates and assumptions used to calculate its reserves for facilities lease losses and related asset impairment charges including those related to expected sublease rates, estimated time to sublease, expected future operating costs, and expected future use of the facilities. These revised estimates and assumptions were based on current conditions and events. The net impact of these changes in estimates and assumptions was not material. Should there be further changes in real estate market conditions or should it take longer than expected to find a suitable tenant to sublease the facilities, adjustments to the facilities lease losses reserve may be necessary in future

[Table of Contents](#)

periods based upon the then current actual events and circumstances.

The following table summarizes the activity for the facilities lease losses reserve, net of expected sublease income, for the nine-month period ended July 27, 2002 (in thousands):

	Facilities Lease Losses
Reserve balances at October 27, 2001	\$38,834
Cash payments	(5,209)
Non-cash charges and adjustments	(371)
Reserve balances at July 27, 2002	\$33,254

Cash payments for facilities leases related to the above noted facilities lease losses will be paid over the respective lease terms through fiscal 2006.

5. Convertible Subordinated Debt

On December 21, 2001, and January 10, 2002, the Company sold, in private placements pursuant to Section 4(2) of the Securities Act of 1933, as amended, \$550 million in aggregate principal amount of 2 percent convertible subordinated notes due 2007. The initial purchasers of the notes were Morgan Stanley & Co. Incorporated, Goldman, Sachs & Co., Salomon Smith Barney, Inc. and Merrill Lynch Pierce Fenner and Smith Incorporated, who purchased the notes from the Company at a discount of 2.25 percent of the aggregate principal amount. Holders of the notes may, in whole or in part, convert the notes into shares of the Company's common stock at a conversion rate of 22.8571 shares per \$1,000 principal amount of notes (aggregate of approximately 12.6 million shares) at any time prior to maturity on January 1, 2007. At any time on or after January 5, 2005, the Company may redeem the notes in whole or in part at the following prices expressed as a percentage of the principal amount:

Redemption Period	Price
Beginning on January 5, 2005 and ending on December 31, 2005	100.80%
Beginning on January 1, 2006 and ending on December 31, 2006	100.40%
On January 1, 2007	100.00%

The Company is required to pay interest on January 1 and July 1 of each year, beginning July 1, 2002. Debt issuance costs of \$12.4 million are being amortized over a five-year term using the straight-line method, which approximates the effective interest rate method. The amortization of debt issuance costs will accelerate upon early redemption or conversion of the notes. During the quarter ended April 27, 2002, the net proceeds of \$537.6 million were invested in United States government agency debt securities. The net proceeds remain available for general corporate purposes, including working capital and capital expenditures.

6. Balance Sheet Detail

Inventories consisted of the following and are shown net of reserves for excess and obsolete inventory (in thousands):

	July 27, 2002	October 27, 2001
Raw materials	\$1,835	\$ 6,572
Finished goods	5,229	3,735
Total	\$7,064	\$10,307

Property and equipment, net consisted of the following (in thousands):

	July 27, 2002	October 27, 2001
Computers, equipment and software	\$148,471	\$ 98,775
Furniture and fixtures	3,356	3,200
Leasehold improvements	28,730	18,435
	180,557	120,410
Less: Accumulated depreciation and amortization	(42,364)	(22,953)
Total	\$138,193	\$ 97,457

Leasehold improvements at July 27, 2002, and October 27, 2001, are shown net of estimated impairments related to facilities lease losses (see Note 4).

7. Commitments and Contingencies

Leases

The Company leases its facilities and certain equipment under various operating lease agreements expiring through November 2013. In connection with its facilities lease agreements, the Company has signed unconditional, irrevocable letters of credit totaling \$18.7 million as security for the leases. Future minimum lease payments under all non-cancelable operating leases as of July 27, 2002 were \$269.5 million. In addition to base rent on its facilities leases, many of the operating lease agreements require that the Company pay a proportional share of the respective facilities' operating expenses.

As of July 27, 2002, the Company had a facilities lease losses reserve, net of expected sublease income, related to future facilities lease commitments of \$33.3 million (see Note 4).

Manufacturing and Purchase Commitments

The Company has a manufacturing agreement with Solectron Corporation (Solectron) under which the Company provides to Solectron a twelve-month product forecast and places purchase orders with Solectron sixty calendar days in advance of the scheduled delivery of products to the Company's customers. As of July 27, 2002, the Company's commitment to Solectron for such inventory components, net of purchase commitment reserves, was \$35.9 million, which the Company expects to utilize during future normal ongoing operations. Although the Company's purchase orders placed with Solectron are cancelable, the terms of the agreement require the Company to purchase from Solectron all inventory components not returnable or usable by other Solectron customers.

In addition, the Company purchases several key components used in the manufacture of its products. As of July 27, 2002, the Company had non-cancelable purchase commitments for various components, net of purchase commitment reserves, totaling \$12.4 million, which the Company expects to utilize during future normal ongoing operations.

The Company has established purchase commitment reserves of \$3.2 million for excess inventory components committed to be purchased from Solectron and other key component vendors that it believes may not be realizable during future normal ongoing operations. These purchase commitment reserves represent the difference between the cost of the components and their estimated fair value based upon assumptions about market conditions and the Company's current forecast of revenue. To the extent that such forecasts are not achieved or actual market conditions are less favorable than those projected, the Company's commitments and associated reserve levels may change. The Company monitors its purchase commitment reserve requirements on a quarterly basis.

Legal Proceedings

On February 14, 2002, a suit captioned *McDATA Corp. v. Brocade Communications Systems, Inc.* was filed against the Company in the United States District Court for the District of Colorado. The complaint alleged that the Brocade SilkWorm 3800 Enterprise Fibre Channel Fabric Switch and Brocade SilkWorm 12000 Core Fabric Switch infringe U.S. Patent No. 6,233,236, entitled "Method and Apparatus for Measuring Traffic Within a Switch." The complaint seeks unspecified compensatory and exemplary damages and to permanently enjoin the Company from infringing the patent in the future. On March 4, 2002, McDATA Corporation (McDATA) filed an amended complaint, in which it additionally alleged that the Brocade SilkWorm 3200 Entry Fabric Switch infringed this patent. In connection with this suit, on March 4, 2002, McDATA filed a motion for a preliminary injunction against the Company with regard to the patent. The Company filed an answer and counterclaims on April 8, 2002 asserting, among other things, no infringement and that the patent is invalid, unenforceable and covered by an existing covenant not to sue between the Company and McDATA. A hearing on McDATA's motion for preliminary injunction was held on July 15, 2002, and the Company is awaiting a decision on the matter. The Company believes that it has meritorious defenses to the claims and intends to defend the action vigorously.

On July 20, 2001, the first of a number of putative class actions was filed in the United States District Court for the Southern District of New York against the Company, certain of its officers and directors, and certain of the underwriters in the Company's initial public offering. Those cases were consolidated under the caption *Chae v. Brocade Communications Systems, Inc. et al.* The complaints generally alleged that various investment bank underwriters engaged in improper and undisclosed activities related to the allocation of shares in the Company's initial public offering. On March 1, 2002, the Court entered an order dismissing without prejudice all claims against the Company and its officers and directors named in the consolidated proceeding. On April 19, 2002, a consolidated amended class action captioned *In Re Brocade Communications Systems, Inc. Initial Public Offering Securities Litigation, 01 CV 6613*, was filed asserting claims against the Brocade parties that are substantially similar to those alleged in the earlier case. The complaint seeks unspecified damages on behalf of a purported class of purchasers of common stock from May 24, 1999 to December 6, 2000. Motions to dismiss have been filed. The Company believes that it has meritorious defenses to the claims and intends to defend the action vigorously.

[Table of Contents](#)

class of purchasers of common stock from May 24, 1999 to December 6, 2000. The Company believes that it has meritorious defenses to the claims and intends to defend the action vigorously.

8. Stockholder Rights Plan

On February 5, 2002, the Company's Board of Directors adopted a stockholder rights plan. Under the plan, the Company declared and paid a dividend of one right for each share of common stock held by stockholders of record as of the close of business on February 19, 2002. Each right initially entitles stockholders to purchase a fractional share of the Company's preferred stock at \$280 per share. However, the rights are not immediately exercisable and will become exercisable only upon the occurrence of certain events. If a person or group acquires or announces a tender or exchange offer that would result in the acquisition of 15 percent or more of the Company's common stock while the stockholder rights plan remains in place, then, unless the rights are redeemed by the Company for \$0.001 per right, the rights will become exercisable by all rights holders except the acquiring person or group for shares of the Company or the third party acquirer having a value of twice the right's then-current exercise price. The stockholder rights plan may have the effect of deterring or delaying a change in control of Brocade.

9. Net Income per Share

The following table presents the calculation of basic and diluted net income per common share (in thousands, except per share data):

	Three Months Ended		Nine Months Ended	
	July 27, 2002	July 28, 2001	July 27, 2002	July 28, 2001
Net income	\$ 18,348	\$ 12,045	\$ 43,997	\$ 56,528
Basic and diluted net income per share:				
Weighted-average shares of common stock outstanding	233,760	228,068	232,573	226,006
Less: Weighted-average shares of common stock subject to repurchase	(743)	(5,205)	(1,754)	(6,387)
Weighted-average shares used in computing basic net income per share	233,017	222,863	230,819	219,619
Dilutive potential common shares	7,089	23,356	13,853	24,653
Weighted-average shares used in computing diluted net income per share	240,106	246,219	244,672	244,272
Basic net income per share	\$ 0.08	\$ 0.05	\$ 0.19	\$ 0.26
Diluted net income per share	\$ 0.08	\$ 0.05	\$ 0.18	\$ 0.23

For the quarters ended July 27, 2002 and July 28, 2001, potential common shares in the form of stock options to purchase 65.1 million and 27.9 million weighted-average shares of common stock, respectively, were antidilutive and, therefore, not included in the computation of diluted earnings per share. For the nine-month periods ended July 27, 2002 and July 28, 2001, potential common shares in the form of stock options to purchase 43.9 million and 18.8 million weighted-average shares of common stock, respectively, were antidilutive and, therefore, not included in the computation of diluted earnings per share. In addition, for the three and nine-month periods ended July 27, 2002, potential common shares resulting from the potential conversion of the Company's convertible subordinated debt of 12.6 million and 10.0 million weighted-average common shares, respectively, were antidilutive and, therefore, not included in the computation of diluted earnings per share.

10. Segment Information

The Company is organized and operates as one operating segment: the design, development, manufacturing, marketing and selling of infrastructure for SANs. The Chief Executive Officer is the Company's Chief Operating Decision Maker (CODM), as defined by SFAS 131, "Disclosures about Segments of an Enterprise and Related Information." The CODM allocates resources and assesses the performance of the Company based on consolidated revenues and overall profitability.

Revenues are attributed to geographic areas based on the location of the customer to which products are shipped. Domestic and international revenues were 75 percent and 25 percent of total revenues, respectively, for the quarter ended July 27, 2002, and 71 percent and 29 percent, respectively, for the nine-month period ended July 27, 2002. Domestic and international revenues were 71 percent and 29 percent of total revenues, respectively, for the quarter ended July 28, 2001, and 72 percent and 28 percent of total revenues, respectively, for the nine-month period ended July 28, 2001. Domestic revenues include sales to certain OEM customers who then distribute Brocade product to their international customers. To date service

[Table of Contents](#)

revenue has not exceeded 10 percent of total revenues. Identifiable assets located in foreign countries were not material as of July 27, 2002, and October 27, 2001.

For the quarters ended July 27, 2002 and July 28, 2001, four and three customers each contributed greater than 10 percent of the Company's total revenues, for combined totals of 76 percent and 54 percent of total revenues, respectively. For the nine-month periods ended July 27, 2002 and July 28, 2001, four and two customers each contributed greater than 10 percent of the Company's total revenues, for combined totals of 73 percent and 48 percent of total revenues, respectively.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This report contains forward-looking statements, which are predictions about future events. These forward-looking statements include predictions regarding our:

- revenues and profits;
- customer concentration;
- research and development expenses;
- sales and marketing expenses;
- general and administrative expenses;
- provision for income taxes;
- realization of deferred tax assets;
- liquidity and sufficiency of existing cash, cash equivalents, and short-term investments for near-term requirements;
- purchase commitments; and
- the effect of recent accounting pronouncements on our financial condition and results of operations.

You can identify these and other forward-looking statements by the use of words such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "intend," "potential," "continue," or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements.

Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth below under the heading "Risk Factors." The following information should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and the Condensed Consolidated Financial Statements and notes thereto included in Item 1 of this Quarterly Report on Form 10-Q, and with Management's Discussion and Analysis of Financial Condition and Results of Operations and the Consolidated Financial Statements and notes thereto contained in our Annual Report on Form 10-K filed with the SEC on January 24, 2002.

All forward-looking statements included in this document are based on information available to us on the date hereof. We assume no obligation to update any forward-looking statements.

Brocade, the B weave logo and SilkWorm are registered trademarks of Brocade Communications Systems, Inc. or its subsidiaries in the United States or in other countries. All other brands, products, or service names are or may be trademarks or service marks of, and are used to identify, products or services of their respective owners.

Recent Events

On August 9, 2002, Christopher B. Paisley joined our Board of Directors. Mr. Paisley will also serve on our Audit Committee and replaces Mark Leslie, who recently retired from our Board. Mr. Paisley currently serves as the Dean's Executive Professor of Accounting and Finance at the Leavey School of Business at Santa Clara University.

On February 14, 2002, a suit captioned *McDATA Corp. v. Brocade Communications Systems, Inc.* was filed against Brocade in the United States District Court for the District of Colorado. The complaint alleged that the Brocade SilkWorm 3800 Enterprise Fibre Channel Fabric Switch and Brocade SilkWorm 12000 Core Fabric Switch infringe U.S. Patent No. 6,233,236, entitled "Method and Apparatus for Measuring Traffic Within a Switch." The complaint seeks unspecified compensatory and exemplary damages and to permanently enjoin Brocade from infringing the patent in the future. On March 4, 2002, McDATA filed an amended complaint, in which it additionally alleged that the Brocade SilkWorm 3200 Entry Fabric Switch infringed this patent. In connection with this suit, on March 4, 2002, McDATA filed a motion for a preliminary injunction against Brocade with regard to the patent. We filed an answer and counterclaims on April 8, 2002 asserting, among other things, no infringement and that the patent is invalid, unenforceable and covered by an existing covenant not to sue between Brocade and McDATA. A hearing on McDATA's motion for preliminary injunction was held on July 15, 2002, and

[Table of Contents](#)

we are awaiting a decision on the matter. We believe that we have meritorious defenses to the claims and intend to defend the action vigorously.

On July 20, 2001, the first of a number of putative class actions was filed in the United States District Court for the Southern District of New York against us, certain of our officers and directors, and certain of the underwriters in our initial public offering. Those cases were consolidated under the caption *Chae v. Brocade Communications Systems, Inc. et al.* The complaints generally alleged that various investment bank underwriters engaged in improper and undisclosed activities related to the allocation of shares in our initial public offering. On March 1, 2002, the Court entered an order dismissing without prejudice all claims against us and our officers and directors named in the consolidated proceeding. On April 19, 2002, a consolidated amended class action captioned *In Re Brocade Communications Systems, Inc. Initial Public Offering Securities Litigation, 01 CV 6613*, was filed asserting claims against the Brocade parties that are substantially similar to those alleged in the earlier case. The complaint seeks unspecified damages on behalf of a purported class of purchasers of common stock from May 24, 1999 to December 6, 2000. Motions to dismiss have been filed. We believe that we have meritorious defenses to the claims and intend to defend the action vigorously.

Results of Operations

The following table sets forth certain financial data for the periods indicated as a percentage of total net revenues:

	Three Months Ended		Nine Months Ended	
	July 27, 2002	July 28, 2001	July 27, 2002	July 28, 2001
Net revenues	100.0%	100.0%	100.0%	100.0%
Cost of revenues	39.9	40.0	39.8	40.0
Gross margin	60.1	60.0	60.2	60.0
Operating expenses:				
Research and development	22.0	23.6	23.3	20.7
Sales and marketing	20.0	19.4	20.2	17.5
General and administrative	3.1	3.8	3.5	3.4
Amortization of deferred stock compensation	0.2	0.2	0.2	0.2
Total operating expenses	45.3	47.0	47.2	41.8
Income from operations	14.8	13.0	13.0	18.2
Interest and other income, net	4.5	1.8	4.1	2.2
Interest expense	(2.2)	—	(1.9)	—
Income before provision for income taxes	17.1	14.8	15.2	20.4
Provision for income taxes	5.0	4.4	4.4	6.1
Net income	12.1%	10.4%	10.8%	14.3%

Revenues. Our revenues are derived primarily from sales of our SilkWorm family of products. Net revenues for the quarter ended July 27, 2002 were \$151.2 million, compared to \$116.3 million for the quarter ended July 28, 2001. The increase in net revenues was primarily the result of sales of our SilkWorm 12000 Core Fabric Switch, introduced in March 2002. Net revenues for the nine months ended July 27, 2002 were \$409.3 million, compared to \$396.5 million for the nine months ended July 28, 2001. Net revenues for the nine months ended July 27, 2002 benefited from the inclusion of sales of our SilkWorm 12000 Core Fabric Switch and were negatively impacted by the unfavorable economic conditions and reduced information technology (IT) spending environment that began in fiscal 2001 and that has continued into fiscal 2002.

Domestic and international revenues for the quarter ended July 27, 2002, were 75 percent and 25 percent of total revenues, respectively, compared with 71 percent and 29 percent of total revenues, respectively, for the quarter ended July 28, 2001. Domestic and international revenues for the nine months ended July 27, 2002, were 71 percent and 29 percent of total revenues, respectively, compared with 72 percent and 28 percent of total revenues, respectively, for the nine months ended July 28, 2001. International revenues resulted primarily from sales to customers in Western Europe and the greater Asia Pacific region. Revenues are attributed to geographic areas based on the location of the customer to which products are shipped. Domestic revenues include sales to certain OEM customers who then distribute our products to their international customers.

A significant portion of our revenues is concentrated among a relatively small number of customers. For the quarters ended July 27, 2002 and July 28, 2001, four and three customers each contributed greater than 10 percent of our total revenues for combined totals of 76 percent and 54 percent of our total revenues, respectively. For the nine-month periods ended July 27, 2002 and July 28, 2001, four and two customers each contributed greater than 10 percent of our total revenues for combined totals of 73 percent and 48 percent of our total revenues, respectively. The level of sales to any single customer may vary and the loss of any one significant customer, or a decrease in the level of sales to any one significant customer,

[Table of Contents](#)

could seriously harm our financial condition and results of operations. We expect that a significant portion of our future revenues will continue to come from sales of products to a relatively small number of customers.

Gross margin. Gross margins for both the three and nine-month periods ended July 27, 2002, remained consistent with gross margins reported in the prior comparable periods.

Research and development expenses. Research and development (R&D) expenses increased to \$33.2 million and \$95.5 million for the three and nine-month periods ended July 27, 2002, respectively, compared to \$27.4 million and \$82.0 million for the three and nine-month periods ended July 28, 2001, respectively. R&D expenses consist primarily of salaries and related expenses for personnel engaged in engineering and R&D activities; fees paid to consultants and outside service providers; nonrecurring engineering charges; prototyping expenses related to the design, development, testing and enhancement of our products; depreciation related to engineering and test equipment; and IT and facilities expenses. The increase in R&D expenses reflects our continued belief that investment in R&D is a critical factor in maintaining our competitive position. The increases in R&D expenses were primarily related to additional personnel associated with the initial development of future products. We currently anticipate that R&D expenses will increase in absolute dollars during the next quarter.

Sales and marketing expenses. Sales and marketing expenses increased to \$30.3 million and \$82.7 million for the three and nine-month periods ended July 27, 2002, respectively, compared to \$22.6 million and \$69.6 million for the three and nine-month periods ended July 28, 2001, respectively. Sales and marketing expenses consist primarily of salaries, commissions and related expenses for personnel engaged in marketing and sales activities; costs associated with promotional and travel expenses; and IT and facilities expenses. The increases in sales and marketing expenses were primarily due to the continued expansion of our sales and marketing organizations, and, for the three months ended July 27, 2002, an increase in commissions associated with increased revenue levels. We believe that continued investment in sales and marketing is critical to the success of our strategy to expand relationships with our OEM customers; to expand our presence in the master reseller and fabric integration channel; to communicate with, understand and anticipate the current and future needs of the end users of our products in order to increase demand for our partners; and to maintain our leadership position in the SAN market. In addition, we are currently expanding our international sales activities to various countries in Europe and the greater Asia Pacific region. We currently anticipate that sales and marketing expenses will increase in absolute dollars during the next quarter.

General and administrative expenses. General and administrative (G&A) expenses increased to \$4.8 million and \$14.1 million for the three and nine-month periods ended July 27, 2002, respectively, compared to \$4.4 million and \$13.4 million for the three and nine-month periods ended July 28, 2001, respectively. G&A expenses consist primarily of salaries and related expenses for corporate executives, finance, human resources and investor relations, as well as recruiting expenses, professional fees, corporate legal expenses, other corporate expenses, and IT and facilities expenses. We currently anticipate that G&A expenses will remain relatively constant in terms of absolute dollars during the next quarter.

Amortization of deferred stock compensation. Amortization of deferred stock compensation was \$0.2 million and \$0.7 million for the three and nine-months periods ended July 27, 2002, respectively, compared to \$0.3 million and \$0.8 million, for the three and nine-month periods ended July 28, 2001, respectively. As of July 27, 2002, unamortized deferred stock compensation was approximately \$0.3 million.

Interest and other income, net. Interest and other income, net increased to \$6.8 million and \$16.8 million for the three and nine-month periods ended July 27, 2002, respectively, compared to \$2.1 million and \$8.7 million for the three and nine-month periods ended July 28, 2001, respectively. The increases were primarily the result of increased cash and investment balances associated with the investment of the proceeds received from our convertible debt offering. Interest and other income, net for the quarter ended July 28, 2001, includes realized gains of \$0.9 million from the sale of marketable equity securities and impairment charges of \$1.2 million related to other-than-temporary declines in the fair value of certain minority equity investments in non-publicly traded companies. Interest and other income, net for the nine-month period ended July 28, 2001, includes realized gains of \$6.6 million from the sale of marketable equity securities and impairment charges of \$4.7 million related to other-than-temporary declines in the fair value of certain minority equity investments in non-publicly traded companies. No impairment charges related to other-than-temporary declines in the fair value of minority equity investments were recorded for the three and nine-month periods ended July 27, 2002.

Interest expense. Interest expense was \$3.4 million and \$8.1 million for the three and nine-month periods ended July 27, 2002, respectively, and was primarily the result of the issuance of convertible subordinated debt.

Provision for income taxes. Our effective tax rate for both the three and nine-month periods ended July 27, 2002, was 29 percent compared to 30 percent for the three and nine-month periods ended July 28, 2001. Our ability to maintain our current effective tax rate requires that international revenues and earnings be achieved as planned. To the extent that international

[Table of Contents](#)

revenues and earnings differ from plan, a factor largely influenced by the buying behavior of our OEM customers, or unfavorable changes in tax laws and regulations occur, our effective tax rate could change.

Liquidity and Capital Resources

Cash, cash equivalents, short-term investments and long-term investments were \$882.3 million as of July 27, 2002, an increase of \$627.2 million from October 27, 2001. For the nine-month period ended July 27, 2002, we generated \$89.9 million in cash from operating activities, primarily from net income and an increase in accounts payable which was partially offset by an increase in accounts receivable due to increased sales during the quarter ended July 27, 2002. Also included in cash from operations were income tax benefits related to employee stock option transactions of \$26.2 million, which were partially offset by an increase in net deferred tax assets of \$20.3 million. As of July 27, 2002, we had \$248.8 million in net deferred tax assets, which we believe will be realizable through future profitable operations.

Net cash used in investing activities for the nine-month period ended July 27, 2002 was \$631.9 million, resulting primarily from purchases of investments of \$640.8 million and purchases of capital equipment of \$65.2 million. Net cash provided by financing activities totaled \$587.6 million and was the result of \$537.6 million in net proceeds from the issuance of convertible subordinated notes (see Note 5, "Convertible Subordinated Debt," of the Notes to Condensed Consolidated Financial Statements), and \$50.0 million in net proceeds from the issuance of common stock related to employee participation in employee stock plans.

We have a manufacturing agreement with Solectron under which we provide to Solectron a twelve-month product forecast and place purchase orders with Solectron sixty calendar days in advance of the scheduled delivery of products to our customers. As of July 27, 2002, our commitment to Solectron for such inventory components, net of purchase commitment reserves, was \$35.9 million, which we expect to utilize during future normal ongoing operations. Although the purchase orders we place with Solectron are cancelable, the terms of the agreement require us to purchase from Solectron all inventory components not returnable or usable by other Solectron customers.

In addition, we purchase several key components used in the manufacture of our products. As of July 27, 2002, we had non-cancelable purchase commitments for various components, net of purchase commitment reserves, totaling \$12.4 million, which we expect to utilize during future normal ongoing operations.

We have established purchase commitment reserves of \$3.2 million for excess inventory components committed to be purchased from Solectron and other key component vendors that we believe may not be realizable during future normal ongoing operations. These purchase commitment reserves represent the difference between the cost of the components and their estimated fair value based upon assumptions about market conditions and our current forecast of revenue. To the extent that such forecasts are not achieved or actual market conditions are less favorable than those projected, our commitments and associated reserve levels may change. We monitor these purchase commitment reserve requirements on a quarterly basis, and as of July 27, 2002 continue to believe our reserves are adequate and sufficient to meet any unrealizable purchase commitments.

On December 21, 2001, and January 10, 2002, we sold \$550 million in aggregate principal amount of 2 percent convertible subordinated notes due 2007 (see Note 5, "Convertible Subordinated Debt," of the Notes to Condensed Consolidated Financial Statements). Holders of the notes may, in whole or in part, convert the notes into shares of our common stock at a conversion rate of 22.8571 shares per \$1,000 principal amount of notes (aggregate of approximately 12.6 million shares) at any time prior to maturity on January 1, 2007. At any time on or after January 5, 2005, we may redeem the notes in whole or in part at the following prices expressed as a percentage of the principal amount:

Redemption Period	Price
Beginning on January 5, 2005 and ending on December 31, 2005	100.80%
Beginning on January 1, 2006 and ending on December 31, 2006	100.40%
On January 1, 2007	100.00%

We are required to pay interest on January 1 and July 1 of each year, beginning July 1, 2002. Debt issuance costs of \$12.4 million are being amortized over a five-year term using the straight-line method, which approximates the effective interest rate method. The amortization of debt issuance costs will accelerate upon early redemption or conversion of the notes. The net proceeds remain available for general corporate purposes, including working capital and capital expenditures.

The following table summarizes our contractual obligations (including interest expense) and commitments as of July 27, 2002 (in thousands):

	Total	Less than 1 year	1 - 3 years	After 3 years
Contractual Obligations:				
Convertible subordinated notes, including interest	\$599,500	\$11,000	\$22,000	\$566,500
Non-cancelable operating leases	269,494	28,834	54,618	186,042
Unconditional purchase obligations, gross	51,489	51,489	—	—
Total contractual obligations	\$920,483	\$91,323	\$76,618	\$752,542
Other Commitments:				
Standby letters of credit	\$ 18,749	\$ n/a	\$ n/a	\$ n/a

We believe that our existing cash, cash equivalents, short-term and long-term investments, and cash expected to be generated from future operations will be sufficient to meet our capital requirements at least through the next 12 months, although we could elect to seek additional funding prior to that time. Our future capital requirements will depend on many factors, including the rate of revenue growth, the timing and extent of spending to support product development efforts and the expansion of sales and marketing, the timing of introductions of new products and enhancements to existing products, and the market acceptance of our products.

Related Party Transactions

Larry W. Sonsini, a director of Brocade, serves as a member and Chairman and CEO of Wilson Sonsini Goodrich & Rosati, Professional Corporation (WSGR), our principal outside legal counsel. Aggregate fees billed to us by WSGR for legal services rendered during the nine-month periods ended July 27, 2002 and July 28, 2001, were \$2.5 million and \$0.5 million, respectively. We believe that the services rendered to us by WSGR were on terms no more favorable than those with unrelated parties.

Mark Leslie was a director of Brocade until May 2002, and served on the Board of Directors of VERITAS Software Corporation (Veritas), a company with whom we do business. During the nine-month periods ended July 27, 2002, and July 28, 2001, total revenues from sales to Veritas were \$2.0 million and \$2.1 million, respectively. We believe that sales to Veritas were on terms no more favorable than those with unrelated parties.

Critical Accounting Policies

Our discussion and analysis of financial condition and results of operations is based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these Consolidated Financial Statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We evaluate, on an on-going basis, our estimates and judgments, including those related to sales returns, bad debts, excess inventory and purchase commitments, investments, warranty obligations, lease losses, income taxes, and contingencies and litigation. We base our estimates on historical experience and assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

We believe the following critical accounting policies, among others, affect our more significant judgments and estimates used in the preparation of our Consolidated Financial Statements:

- Revenue recognition and allowances;
- Inventory and purchase commitment reserves;
- Lease losses; and
- Accounting for income taxes.

Product revenue is generally recognized when persuasive evidence of an arrangement exists, delivery has occurred, fee is fixed or determinable, and collectibility is probable. However, revenue recognition is deferred for shipments to new customers and for shipments to existing customers when significant support services are required to successfully integrate our product into our customer's products. These revenues, and related costs, are deferred and recognized when the customer has successfully integrated our product into its product offerings and we have met any support obligations. In addition, revenue from sales to master resellers is recognized upon reported sell-through.

[Table of Contents](#)

Service revenue, which to date has not been material, consists of training, warranty, and maintenance arrangements, including post-contract customer support (PCS) services. PCS services are offered under renewable, annual fee-based contracts or as part of multiple element arrangements and typically include upgrades and enhancements to our software operating system, and telephone support. For multiple element arrangements, we allocate revenue to each element based upon vendor-specific objective evidence (VSOE). VSOE for each element is based upon the price charged when the element is sold separately. Service revenue, including revenue allocated to undelivered elements, is deferred and recognized ratably over the contractual period, which is generally one to three years. Training revenue is recognized upon completion of the training.

We accrue for warranty costs and reduces revenue for estimated sales returns and other allowances at the time of shipment. Warranty costs, sales returns and other allowances are estimated based upon historical experience. If the data used to calculate these estimates does not properly anticipate future returns, revenue could be misstated. To date, actual experience has been consistent with our estimates.

We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. We analyze accounts receivable and historical bad debts, customer concentrations, customer creditworthiness, current economic trends and changes in customer payment terms and practices when evaluating the adequacy of the allowance for doubtful accounts. If the financial condition of our customers was to deteriorate, resulting in an impairment of their ability to make payments, additional allowances and charges against earnings may be required. To date, actual experience has been consistent with our estimates.

We write down inventory and record purchase commitment reserves for estimated excess and obsolete inventory equal to the difference between the cost of inventory and the estimated fair value based upon assumptions about future demand and market conditions. Although we strive to ensure the accuracy of our forecasts of future product demand, any significant unanticipated changes in demand or technological developments could have a significant impact on the value of our inventory and commitments, and our reported results. If actual market conditions are less favorable than those projected, additional inventory write-downs, purchase commitment reserves, and charges against earnings might be required. To date actual experience has been consistent with our estimates.

As a result of continuing unfavorable economic conditions and a reduction in IT spending rates, during the quarter ended October 27, 2001, we performed a comprehensive analysis of our real estate facility requirements and identified existing vacant excess facility space, which was subsequently offered for sublease. Based upon the results of this analysis, during the quarter ended October 27, 2001, we recorded a charge of \$39.8 million related to estimated facilities lease losses, net of expected sublease income, and a charge of \$5.7 million in connection with the impairment of certain related leasehold improvements. In determining the net facilities lease losses and related asset impairment charges, various assumptions were made including the time period over which the facilities will be vacant, expected sublease terms and rates. The estimated charges represented the low-end of an estimated range that may be adjusted upon the occurrence of future triggering events. Under certain circumstances, we estimated the high-end of this range to be \$63.0 million. Triggering events may include, but are not limited to, changes in estimated time to sublease the facilities, sublease terms, and sublease rates.

During the quarter ended July 27, 2002, we revised certain estimates and assumptions used to calculate our reserves for facilities lease losses and related asset impairment charges, including those related to expected sublease rates, estimated time to sublease, expected future operating costs, and expected future use of the facilities. These revised estimates and assumptions were based on current conditions and events. The net impact of these changes in estimates and assumptions was not material. Should there be further changes in real estate market conditions or should it take longer than expected to find a suitable tenant to sublease the facilities, adjustments to the facilities lease losses reserve may be necessary in future periods based upon the then current actual events and circumstances.

The determination of our tax provision is subject to judgments and estimates due to operations in several tax jurisdictions outside the United States. Sales to our international customers are generally taxed at rates that are lower than United States rates, resulting in a reduction of our effective tax rate. The ability to maintain our current effective tax rate is contingent upon existing tax laws in both the United States and in the respective countries in which our international subsidiaries are located. Future changes in domestic or international tax laws could affect the continued realization of the tax benefits we are currently receiving and expect to receive from international sales. In addition, a decrease in the percentage of our total revenue from international customers or in the mix of international revenue among particular tax jurisdictions could change our overall effective tax rate. Also, our current effective tax rate assumes that United States income taxes are not provided for undistributed earnings of certain non-United States subsidiaries. These earnings could become subject to incremental foreign withholding, or Federal and state income taxes should they be either deemed or actually remitted to the United States.

The carrying value of our net deferred tax assets, which is made up primarily of income tax deductions and credits resulting from stock option exercises, assumes that we will be able to generate sufficient future income to fully utilize these

[Table of Contents](#)

tax deductions and credits. If we do not generate sufficient future income, the realization of these deferred tax assets may be impaired resulting in additional income tax expense. We evaluate the expected realization of our deferred tax assets and assess the need for valuation allowances quarterly.

Recent Accounting Pronouncements

In October 2001, the FASB issued Statement of Financial Accounting Standards No. 144 “Accounting for the Impairment or Disposal of Long-Lived Assets” (SFAS 144). SFAS 144 supersedes SFAS No. 121 “Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of” (SFAS 121), and certain provisions of APB Opinion No. 30 “Reporting the Results of Operations-Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions” (APB 30). SFAS 144 establishes standards for long-lived assets to be disposed of, and redefines the valuation and presentation of discontinued operations. SFAS 144 is effective for fiscal years beginning after December 15, 2001, and interim periods within those fiscal years. We do not expect the adoption of SFAS 144 to have a material effect on our financial position, results of operations, or cash flows.

Risk Factors

Our quarterly revenues and operating results may fluctuate in future periods for a number of reasons, which could adversely affect the trading price of our stock.

Our quarterly revenues and operating results may vary significantly in the future due to a number of factors, any of which may cause our stock price to fluctuate. The primary factors that may impact the predictability of our quarterly results include the following:

- changes in general economic conditions and specific economic conditions in the computer, storage, and networking industries. In particular, recent economic uncertainty has resulted in a general reduction in information technology (IT) spending. This reduction in IT spending has led to a decline in our growth rates compared to historical trends;
- the timing of customer orders and product implementations, particularly large orders from and product implementations of our OEM customers;
- the effects of terrorist activity and armed conflict, such as disruptions or downturns in general economic activity;
- announcements, introductions, and transitions of new products by us and our competitors;
- the ability of new competitors to enter the market and effectively compete against us;
- deferrals of customer orders in anticipation of new products, services, or product enhancements introduced by us or our competitors;
- our ability to obtain sufficient supplies of sole or limited sourced components, including application specific integrated circuits (ASICs), microprocessors, certain logic chips, programmable logic devices, chassis, printed circuit boards and power supplies;
- increases in prices of components used in the manufacture of our products;
- our ability to attain and maintain production volumes and quality levels;
- variations in the mix of our products sold and the mix of distribution channels through which they are sold;
- litigation; and
- legislation or regulatory developments.

Accordingly, the results of any prior periods should not be relied upon as an indication of future performance. If our operating results are below the expectations of stock market analysts or investors, our stock price may decline.

Our revenues may be impacted by changes in IT spending levels.

In recent quarters, unfavorable economic conditions and reduced global IT spending rates have adversely affected our operating results and led to a decline in our growth rates compared to historical trends. While we have begun to experience some resumption of growth in our business, the extent and duration of growth are influenced by overall IT spending rates. We are unable to predict when IT spending rates will return to historical levels, if at all. If there are further reductions in either domestic or international IT

spending rates, or if IT spending rates do not return to historical levels, our revenues, operating results and financial condition may be adversely affected.

Our success depends on our ability to develop new and enhanced products that achieve widespread market acceptance.

We currently derive substantially all of our revenues from sales of our SilkWorm family of products. We expect that revenue from this product family will continue to account for a substantial portion of our revenues for the foreseeable future. Therefore, widespread market acceptance of these products is critical to our future success. Some of our products have been only recently introduced and, therefore, the demand and market acceptance of these products is uncertain. Factors that may affect the market acceptance of our products include the performance, price and total cost of ownership of our products; the features and functionality of our products; the availability and price of competing products and technologies; and the success and development of our OEM partners, master resellers and fabric partners. Many of these factors are beyond our control.

Our future success depends upon our ability to address the rapidly changing needs of our customers by developing and introducing high-quality, cost-effective products and product enhancements on a timely basis and by keeping pace with technological developments and emerging industry standards. We recently introduced the SilkWorm 12000 Core Fabric Switch which is targeted at expanding our existing market, but is also targeted toward the “director” class market. We expect that a significant portion of our future growth will depend upon the market acceptance of this product. We expect to launch new products during the next year and our future revenue growth will be dependent on the success of the SilkWorm 12000 Core Fabric Switch and these new products. We have in the past experienced delays in product development and such delays may occur in the future. If we are unable to achieve market acceptance of our new products, our business and results of operations could be harmed.

As we introduce new products, we must manage the transition between our new products and our older products.

As new or enhanced products are introduced, we must successfully manage the transition from older products in order to minimize disruption in customers’ ordering patterns, avoid excessive levels of older product inventories, and ensure that enough supplies of new products can be delivered to meet customers’ demands. Our failure to manage the transition to newer products in the future or to develop and successfully introduce new products and product enhancements could adversely affect our business and financial results. In particular, in conjunction with the transition of our product offerings from 1 to 2 Gbit/sec technology, we have begun introducing products with new features and functionality. We face risks relating to this product transition, including risks relating to forecasting demand for 2 Gbit/sec products and related transition issues, as well as possible product and software defects and a potentially different sales and support environment due to the complexity of these new systems. If any of the foregoing occurs, our business could be seriously harmed.

Increased market competition may lead to reduced sales of our products, reduced profits, and reduced market share.

The markets for our SAN switching products are competitive, and are likely to become even more competitive. Increased competition could result in pricing pressures, reduced sales, reduced margins, reduced profits, reduced market share, or the failure of our products to achieve or maintain market acceptance. Our products face competition from multiple sources and we may not be able to compete successfully against current and future competitors. Furthermore, as the SAN market evolves, non-Fibre Channel-based products may become available to interconnect servers and storage. To the extent that these products provide the ability to network servers and storage and support high-performance, block-data storage applications, they may compete with our current and future products. These products may include, but are not limited to, non-Fibre Channel based emerging products based on Gigabit Ethernet, 10-Gigabit Ethernet and Infiniband.

International political instability may increase our cost of doing business and disrupt our business.

Increased international political instability, as demonstrated by the September 2001 terrorist attacks, disruption in air transportation and further enhanced security measures as a result of the September 2001 terrorist attacks, the military action taken in Afghanistan, and the conflicts in the Middle East, may halt or hinder our ability to do business and may increase our costs. This increased instability may, for example, negatively impact the reliability and cost of transportation, negatively impact the desire of our employees and customers to travel, adversely affect our ability to obtain adequate insurance at reasonable rates, and require us to take extra security precautions for our operations. In addition, to the extent that air transportation is delayed or disrupted, the operations of our contract manufacturers and suppliers may be disrupted, particularly if shipments of components and raw materials are delayed. If this international political instability continues or escalates, our business and results of operations could be harmed.

Failure to manage expansion effectively could seriously harm our business, financial condition, and prospects.

[Table of Contents](#)

Our ability to successfully implement our business plan, develop and offer products, and manage expansion in a rapidly evolving market requires a comprehensive and effective planning and management process. We continue to increase the scope of our operations domestically and internationally, and have grown headcount substantially. In addition, we plan to continue to hire employees in the foreseeable future. Our growth in business, headcount, and relationships with customers and other third parties has placed, and will continue to place, a significant strain on management systems and resources. Our failure to continue to improve upon our operational, managerial, and financial controls, reporting systems, and procedures, and our failure to continue to expand, train, and manage our work force worldwide, could seriously harm our business and financial results.

Failure to adequately anticipate future OEM and end-user product needs and failure to forecast OEM and end-user demand could negatively impact the demand for our products and reduce our revenues.

We market and sell our products through OEM partners, master resellers and fabric partners. We must continually assess, anticipate, and respond to the needs of these OEM partners, master resellers and fabric partners. We must also ensure that our products integrate with solutions provided by these OEM partners, master resellers and fabric partners. In addition, we must continually assess, anticipate, and respond to the needs of their customers, who are the end-users of our products. If we fail to respond to the needs of these groups, our business and operating results could be harmed.

Because we market and sell our products through OEM partners, master resellers and fabric partners, our direct contact with the end-users of our products is often limited. Although we make every effort to communicate with, understand, and anticipate the current and future needs of the end-users of our products, to a large extent we rely on our OEM partners, master resellers and fabric partners for visibility into those end-user requirements. Our failure to adequately assess and anticipate future end-user needs could negatively impact the demand for our products and reduce our revenues.

Similarly, we have limited ability to forecast the demand for our products. In preparing sales and demand forecasts, we rely largely on input from our OEM partners, master resellers and fabric partners. If our customers are unable to accurately forecast demand, or we fail to effectively communicate with our customers about end-user demand or other time sensitive information, sales and demand forecasts may not reflect the most accurate, up-to-date information. Because we make business decisions based on our sales and demand forecasts, if these forecasts do not materialize, our business and financial results could be negatively impacted. Furthermore, we may not be able to identify these forecast differences until late in our fiscal quarter. Consequently, we may not be able to make adjustments to our business model without negatively impacting our earnings.

We plan to continue to increase our international sales activities significantly, which will subject us to additional business risks.

We plan to continue to expand our international sales activities significantly. Expansion of international operations will involve inherent risks that we may not be able to control, including:

- supporting multiple languages;
- recruiting sales and technical support personnel with the skills to support our products;
- increased complexity and costs of managing international operations;
- commercial laws and business practices that favor local competition;
- multiple, potentially conflicting, and changing governmental laws and regulations, including differing labor and employment laws;
- longer sales cycles;
- difficulties in collecting accounts receivable;
- reduced or limited protections of intellectual property rights; and
- political and economic instability.

To date, none of our international revenues and costs of revenues has been denominated in foreign currencies. As a result, an increase in the value of the United States dollar relative to foreign currencies could make our products more expensive and, thus, less competitive in foreign markets. In the future, a portion of our international revenues may be denominated in foreign currencies, including the Euro, which will subject us to risks associated with fluctuations in those foreign currencies. Additionally, we receive significant tax benefits from sales to our international customers. These benefits are contingent upon existing tax laws in both the United States and in the respective countries in which our international customers are located.

[Table of Contents](#)

Future changes in domestic or international tax laws could affect the continued realization of the tax benefits we are currently receiving and expect to receive from sales to our international customers. In addition, a decrease in the percentage of our total revenue from international customers, or in the mix of international revenue among particular tax jurisdictions, could increase our overall effective tax rate.

We depend on OEM customers. The loss of any of these OEM customers could significantly reduce our revenues.

Although our customer base has increased, we still depend on large, recurring purchases from a limited number of large OEM customers. Our agreements with our OEM customers are typically cancelable, non-exclusive, and have no minimum purchase requirements. For the fiscal quarter ended July 27, 2002, four customers each represented greater than ten percent of our total revenues for a combined total of 76 percent of our total revenues. In addition, HP and Compaq, two of our larger OEM customers, recently merged. This merger may result in a decrease or a disruption in our sales to the combined company. We anticipate that our revenues and operating results will continue to depend on sales to a relatively small number of customers. Therefore, the loss of any one significant customer, or a decrease in the level of sales to any one significant customer, could seriously harm our financial condition and results of operations.

Failure to expand distribution channels and manage distribution relationships could significantly reduce our revenues.

Our success will depend on our continuing ability to develop and manage relationships with significant OEM partners, master resellers and fabric partners, as well as on the sales efforts and success of these customers. Our OEM customers may evaluate our products for a limited time period before they begin to market and sell them. Assisting these customers through the evaluation process may require significant sales, marketing, and management efforts on our part, particularly if our products are being qualified with multiple customers at the same time. In addition, once our products have been qualified, our customer agreements have no minimum purchase commitments. We may not be able to maintain or expand our distribution channels, manage distribution relationships successfully, or market our products through OEMs effectively. Our failure to manage successfully our distribution relationships or the failure of our customers to sell our products could reduce our revenues.

The loss of our relationship with Solectron Corporation, our principal manufacturer, or the failure to accurately forecast demand for our products or successfully manage our relationship with Solectron, could negatively impact our ability to manufacture and sell our products.

We currently depend on Solectron, a third party manufacturer, to manufacture our products. If we should fail to effectively manage our relationship with Solectron, or if Solectron experiences delays, disruptions, capacity constraints, or quality control problems in its manufacturing operations, our ability to ship products to our customers could be delayed and our competitive position and reputation could be harmed. Qualifying a new contract manufacturer and commencing volume production is a lengthy and expensive process. Although we recently qualified an additional third-party contract manufacturer to manufacture some of our products, if we are required or choose to change our principal contract manufacturer, we may lose revenue and damage our customer relationships.

We have entered into a manufacturing agreement with Solectron under which we provide to Solectron a 12-month product forecast and place purchase orders with Solectron 60 calendar days in advance of the scheduled delivery of products to our customers. Although our purchase orders placed with Solectron are cancelable, the terms of the agreement require us to purchase from Solectron all inventory components not returnable or usable by other Solectron customers. Accordingly, if we inaccurately forecast demand for our products, we may be unable to obtain adequate manufacturing capacity from Solectron to meet customers' delivery requirements or we may accumulate excess inventories.

We are dependent on sole source and limited source suppliers for certain key components including ASICs and power supplies.

We currently purchase several key components used in the manufacture of our products from single or limited sources. We purchase ASICs, microprocessors, certain connectors, certain logic chips, programmable logic devices, and chassis from single sources, and printed circuit boards and power supplies from limited sources. In addition, we license certain software from third parties that is incorporated into the operating system of our products. If we are unable to buy or license these components on a timely basis, we will not be able to deliver our products to our customers in a timely manner. We use a rolling six-month forecast based on anticipated product orders to determine component requirements. If we overestimate component requirements, we may have excess inventory, which would increase our costs. If we underestimate component requirements, we may have inadequate inventory, which could interrupt the manufacturing process and result in lost or deferred revenue. In addition, lead times for components vary significantly and depend on factors such as the specific supplier, contract terms, and demand for a component at a given time. We also may experience shortages of certain

components from time to time, which also could delay the manufacturing and sales processes.

The prices of our products may decline which would reduce our revenues and gross margins.

The average unit prices of our products may decrease in the future in response to changes in product mix, competitive pricing pressures, increased sales discounts, new product introductions by us or our competitors, or other factors. If we are unable to offset these factors by increasing sales volumes, our total revenues will decline. In addition, to maintain our gross margins we must maintain or increase current shipment volumes and develop and introduce new products and product enhancements, and we must continue to reduce the manufacturing cost of our products. Failure to reduce the manufacturing cost of our products in response to declines in unit selling prices would result in a decline in our gross margins.

Undetected software or hardware errors could increase our costs and reduce our revenues.

Networking products frequently contain undetected software or hardware errors when first introduced or as new versions are released. Our products are becoming increasingly complex and errors may be found from time to time in our new or enhanced products. In addition, our products are combined with products from other vendors. As a result, when problems occur, it may be difficult to identify the source of the problem. These problems may cause us to incur significant warranty and repair costs, divert the attention of engineering personnel from product development efforts and cause significant customer relations problems. Moreover, the occurrence of hardware and software errors, whether caused by another vendor's SAN products, or ours, could delay or prevent the development of the SAN market.

We may not be able to maintain profitability.

We may not be able to maintain profitability in the future. We expect to incur significant costs and expenses for product development, sales and marketing, customer support, and expansion of corporate infrastructure. We make investment decisions based upon anticipated revenues and margins. If these anticipated revenues and margins do not materialize our future profitability could be adversely affected.

In addition, we have a limited operating history. Therefore, it is difficult to forecast future operating results based on historical results. We plan our operating expenses based in part on future revenue projections. Our ability to accurately forecast quarterly revenue is limited for the reasons discussed above in "Our quarterly revenues and operating results may fluctuate in future periods for a number of reasons, which could adversely affect the trading price of our stock." Moreover, most of our expenses are fixed in the short-term or incurred in advance of receipt of corresponding revenue. As a result, we may not be able to decrease our spending to offset any unexpected shortfall in revenues. If this occurs, we could incur losses and our operating results may be below our expectations and those of investors and stock market analysts.

If we lose key personnel or are unable to hire additional qualified personnel, we may not be successful.

Our success depends to a significant degree upon the continued contributions of key management, engineering, and sales and marketing personnel, many of whom would be difficult to replace. We do not have key person life insurance on any of our key personnel. We also believe that our success depends to a significant extent on the ability of management to operate effectively, both individually and as a group.

We believe our future success will also depend in large part upon our ability to attract and retain highly skilled managerial, engineering, sales and marketing, finance, and operations personnel. We have experienced difficulty in hiring qualified ASIC, software, system and test, sales and marketing, and customer support personnel. We may not be successful in attracting and retaining these individuals in the future. The loss of the services of any of our key employees, the inability to attract or retain qualified personnel in the future, or delays in hiring required personnel, particularly engineers and sales personnel, could delay the development and introduction of, and negatively impact our ability to sell, our products.

In addition, companies in the computer storage and server industry whose employees accept positions with competitors frequently claim that their competitors have engaged in unfair hiring practices. We may receive such claims in the future as we seek to hire qualified personnel. Such claims, if received, may result in material litigation. We could incur substantial costs in defending against these claims, regardless of their merits.

We may be unable to protect our intellectual property, which would negatively affect our ability to compete.

We rely on a combination of patent, copyright, trademark, and trade secret laws, confidentiality agreements, and other contractual restrictions on disclosure to protect our intellectual property rights. We also enter into confidentiality or license agreements with our employees, consultants, and corporate partners, and control access to and distribution of our technology, software, documentation, and other confidential information. These measures may not preclude competitors from

independently developing products with functionality or features similar to our products. Despite efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our products is difficult and we cannot be certain that the steps we take to prevent unauthorized use of our technology, particularly in foreign countries where the laws may not protect proprietary rights as fully as in the United States, will be effective.

Others may bring infringement claims, which could be time-consuming and expensive to defend, against us.

In recent years, there has been significant litigation in the United States involving patents and other intellectual property rights. On February 14, 2002, a suit captioned *McDATA Corp. v. Brocade Communications Systems, Inc.* was filed against Brocade in the United States District Court for the District of Colorado. The complaint alleged that the Brocade SilkWorm 3800 Enterprise Fibre Channel Fabric Switch and Brocade SilkWorm 12000 Core Fabric Switch infringe U.S. Patent No. 6,233,236, entitled “Method and Apparatus for Measuring Traffic Within a Switch.” The complaint seeks unspecified compensatory and exemplary damages and to permanently enjoin Brocade from infringing the patent in the future. On March 4, 2002, McDATA filed an amended complaint, in which it additionally alleged that the Brocade SilkWorm 3200 Entry Fabric Switch infringed this patent. In connection with this suit, on March 4, 2002, McDATA filed a motion for a preliminary injunction against Brocade with regard to the patent. We filed an answer and counterclaims on April 8, 2002. A hearing on the motion for preliminary injunction was held on July 15, 2002, and we are awaiting a decision on the matter. We believe that we have meritorious defenses to the claims and intend to defend the action vigorously.

We may be a party to litigation in the future to protect our intellectual property or as a result of an alleged infringement of others’ intellectual property. These claims and any resulting lawsuit, including the McDATA lawsuit, could subject us to significant liability for damages and invalidation of proprietary rights. These lawsuits, regardless of their success, would likely be time-consuming and expensive to resolve and would divert management’s time and attention. Any potential intellectual property litigation, including the McDATA litigation, also could force us to do one or more of the following:

- stop selling, incorporating or using products or services that use the challenged intellectual property;
- obtain from the owner of the infringed intellectual property a license to the relevant intellectual property, which license may require us to license our intellectual property to such owner, or may not be available on reasonable terms or at all; and
- redesign those products or services that use technology that is the subject of an infringement claim.

If we are forced to take any of the foregoing actions, we may be unable to manufacture, use, sell, import and export our products, which would reduce our revenues.

We may engage in future acquisitions that dilute our stockholders and cause us to use cash, incur debt, or assume contingent liabilities.

As part of our strategy, we expect to review opportunities to buy other businesses or technologies that would complement our current products, expand the breadth of our markets or enhance our technical capabilities, or that may otherwise offer growth opportunities. We may buy businesses, products, or technologies in the future. In the event of any future purchases, we could:

- issue stock that would dilute our current stockholders’ percentage ownership;
- use cash, which may result in a reduction of our liquidity;
- incur debt; or
- assume liabilities.

These purchases also involve numerous risks, including:

- problems combining the purchased operations, technologies, personnel or products;
- unanticipated costs;
- diversion of management’s attention from our core business;
- adverse effects on existing business relationships with suppliers and customers;
- risks associated with entering into markets in which we have no, or limited, prior experience; and

[Table of Contents](#)

- potential loss of key employees of acquired organizations.

We may not be able to successfully integrate any businesses, products, technologies, or personnel that we might acquire in the future.

Our products must comply with evolving industry standards and government regulations.

Industry standards for SAN products are continuing to emerge, evolve, and achieve acceptance. To remain competitive, we must continue to introduce new products and product enhancements that meet these industry standards. All components of the SAN must interoperate together. Industry standards are in place to specify guidelines for interoperability and communication based on standard specifications. Our products comprise only a part of the entire SAN solution utilized by the end-user, and we depend on the companies that provide other components of the SAN solution, many of whom are significantly larger than us, to support the industry standards as they evolve. The failure of these providers to support these industry standards could adversely affect the market acceptance of our products.

In addition, in the United States, our products comply with various regulations and standards defined by the Federal Communications Commission and Underwriters Laboratories. Internationally, products that we develop will be required to comply with standards established by authorities in various countries. Failure to comply with existing or evolving industry standards or to obtain timely domestic or foreign regulatory approvals or certificates could materially harm our business.

Provisions in our charter documents, customer agreements, Delaware law, and our stockholder rights plan could prevent or delay a change in control of Brocade, which could hinder stockholders' ability to receive a premium for our stock.

Provisions of our certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition that a stockholder may consider favorable. These provisions include:

- authorizing the issuance of preferred stock without stockholder approval;
- providing for a classified board of directors with staggered, three-year terms;
- prohibiting cumulative voting in the election of directors;
- limiting the persons who may call special meetings of stockholders;
- prohibiting stockholder actions by written consent; and
- requiring super-majority voting to effect amendments to the foregoing provisions of our certificate of incorporation and bylaws.

Certain provisions of Delaware law also may discourage, delay, or prevent someone from acquiring or merging with us. Further, our agreements with certain of our customers require that we give prior notice of a change of control and grant certain manufacturing rights following the change of control. In addition, we currently have in place a stockholder rights plan. Any of these things could prevent or delay a change in control of Brocade, which could hinder stockholders' ability to receive a premium for our stock.

We expect to experience volatility in our stock price, which could negatively affect stockholders' investments.

The market price of our common stock has experienced significant volatility in the past and may continue to fluctuate significantly in response to the following factors, some of which are beyond our control:

- macroeconomic conditions;
- actual or anticipated fluctuations in our operating results;
- changes in financial estimates by securities analysts;
- changes in market valuations of other technology companies;
- announcements of financial results by us or other technology companies;
- announcements by us, our competitors, customers, or similar businesses of significant technical innovations, contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- losses of major OEM customers;

[Table of Contents](#)

- additions or departures of key personnel;
- sales by us of common stock or convertible securities; and
- incurring additional debt.

In addition, the stock market has experienced extreme volatility that often has been unrelated to the performance of particular companies. These market fluctuations may cause our stock price to fall regardless of how the business performs.

Our business may be harmed by class action litigation due to stock price volatility.

In the past, securities class action litigation often has been brought against a company following periods of volatility in the market price of its securities. We are currently in litigation regarding alleged nondisclosure of improprieties in the distribution of shares in our initial public offering by our underwriters, including undisclosed fees and commissions received by the underwriters and alleged laddering arrangements. We believe that the claims are without merit and intend to defend ourselves vigorously. In addition, in the future we may be the target of other securities litigation. Securities litigation could result in substantial costs and divert management's attention and resources.

Business interruptions could adversely affect our business.

Our operations are vulnerable to interruption by fire, earthquake, power loss, telecommunications failure, and other events beyond our control. A substantial portion of our facilities, including our corporate headquarters, is located near major earthquake faults. In the event of a major earthquake, we could experience business interruptions, destruction of facilities and loss of life. We neither carry earthquake insurance nor have we set aside funds or reserves to cover such earthquake-related losses. Our facilities located in the State of California have, from time to time, been subject to rolling electrical blackouts resulting from shortages of available electrical power. Should these blackouts continue to occur or increase in severity in the future, they could disrupt the operations of our affected facilities. Although we carry business interruption insurance to mitigate the impact of potential business interruptions, should a business interruption occur, our business could be seriously harmed.

Our private minority equity investments are subject to equity price risk and their value may fluctuate.

From time to time, we make equity investments for the promotion of business and strategic objectives. The market price and valuation of the securities that we hold in these companies may fluctuate due to market conditions and other circumstances over which we have little or no control. To the extent that the fair value of these securities is less than our cost over an extended period of time, our operating results and financial condition could be harmed.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk related to changes in interest rates.

Interest Rate Risk

Our exposure to market risk due to changes in the general level of United States interest rates relates primarily to our cash equivalents, and short-term and long-term investment portfolios. Our cash, cash equivalents, and short-term and long-term investments are primarily maintained at four major financial institutions in the United States. As of July 27, 2002, we did not hold any derivative instruments. The primary objective of our investment activities is the preservation of principal while maximizing investment income and minimizing risk. Our short-term investments consist of United States Treasury and Federal agency debt securities with original maturity dates between three months and one year. Due to the nature of our short-term investments, we believe that market risk due to changes in interest rates is not material.

The following table presents the hypothetical changes in fair values of our investments in debt securities issued by United States government agencies as of July 27, 2002 that are sensitive to changes in interest rates (in thousands):

Issuer	Valuation of Securities Given an Interest Rate Decrease of X Basis Points			Fair Value As of July 27, 2002	Valuation of Securities Given an Interest Rate Increase of X Basis Points		
	(150BP)	(100BP)	(50BP)		50BP	100BP	150BP
U.S. government agency debt securities	\$708,665	\$701,222	\$693,833	\$686,525	\$679,215	\$671,984	\$664,804

[Table of Contents](#)

These instruments are not leveraged and are classified as available-for-sale. The modeling technique used above measures the change in fair values arising from selected potential changes in interest rates. Market changes reflect immediate hypothetical parallel shifts in the yield curve of plus or minus 50 basis points (BP), 100 BP, and 150 BP. A 50 BP move in the Federal Funds Rate has occurred in nine of the last 10 years; a 100 BP move in the Federal Funds Rate has occurred in six of the last 10 years; and a 150 BP move in the Federal Funds Rate has occurred in four of the last 10 years.

The following table (in thousands) presents our cash equivalents and short-term and long-term investments subject to interest rate risk and their related weighted-average interest rates as of July 27, 2002. Carrying value approximates fair value.

	Amount	Average Interest Rate
Cash and cash equivalents	\$195,784	1.55%
Short-term investments	76,723	2.42%
Long-term investments	609,802	3.91%
Total	<u>\$882,309</u>	3.26%

Our convertible subordinated debt is subject to a fixed interest rate and the notes are based on a fixed conversion ratio into common stock. Therefore, we are not exposed to changes in interest rates related to our long-term debt instruments. The notes are not listed on any securities exchange or included in any automated quotation system; however, the notes are eligible for trading on the PortalSM Market. On July 26, 2002, the average bid and ask price on the Portal Market of our convertible subordinated notes due 2007 was 75.25, resulting in an aggregate fair value of approximately \$413.9 million. Our common stock is quoted on the Nasdaq National Market under the symbol "BRCD." On July 26, 2002, the last reported sale price of our common stock on the Nasdaq National Market was \$16.54 per share.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

On February 14, 2002, a suit captioned *McDATA Corp. v. Brocade Communications Systems, Inc.* was filed against Brocade in the United States District Court for the District of Colorado. The complaint alleged that the Brocade SilkWorm 3800 Enterprise Fibre Channel Fabric Switch and Brocade SilkWorm 12000 Core Fabric Switch infringe U.S. Patent No. 6,233,236, entitled "Method and Apparatus for Measuring Traffic Within a Switch." The complaint seeks unspecified compensatory and exemplary damages and to permanently enjoin Brocade from infringing the patent in the future. On March 4, 2002, McDATA filed an amended complaint, in which it additionally alleged that the Brocade SilkWorm 3200 Entry Fabric Switch infringed this patent. In connection with this suit, on March 4, 2002, McDATA filed a motion for a preliminary injunction against Brocade with regard to the patent. We filed an answer and counterclaims on April 8, 2002 asserting, among other things, no infringement and that the patent is invalid, unenforceable and covered by an existing covenant not to sue between Brocade and McDATA. A hearing on McDATA's motion for preliminary injunction was held on July 15, 2002, and we are awaiting a decision on the matter. We believe that we have meritorious defenses to the claims and intend to defend the action vigorously.

On July 20, 2001, the first of a number of putative class actions was filed in the United States District Court for the Southern District of New York against us, certain of our officers and directors, and certain of the underwriters in our initial public offering. Those cases were consolidated under the caption *Chae v. Brocade Communications Systems, Inc. et al.* The complaints generally alleged that various investment bank underwriters engaged in improper and undisclosed activities related to the allocation of shares in our initial public offering. On March 1, 2002, the Court entered an order dismissing without prejudice all claims against us and our officers and directors named in the consolidated proceeding. On April 19, 2002, a consolidated amended class action captioned *In Re Brocade Communications Systems, Inc. Initial Public Offering Securities Litigation, 01 CV 6613*, was filed asserting claims against the Brocade parties that are substantially similar to those alleged in the earlier case. The complaint seeks unspecified damages on behalf of a purported class of purchasers of common stock from May 24, 1999 to December 6, 2000. Motions to dismiss have been filed. We believe that we have meritorious defenses to the claims and intend to defend the action vigorously.

Item 2. Changes in Securities and Use of Proceeds

On December 21, 2001, and January 10, 2002, we sold, in private placements pursuant to Section 4(2) of the Securities Act of 1933, as amended, \$550 million in aggregate principal amount of 2 percent convertible subordinated notes due 2007. The initial purchasers of the notes were Morgan Stanley & Co. Incorporated, Goldman, Sachs & Co., Salomon Smith Barney, Inc. and Merrill Lynch, Pierce Fenner and Smith Incorporated, who purchased the notes from us at a discount of 2.25 percent of the aggregate principal amount. Holders of the notes may, in whole or in part, convert the notes into shares of our common

Table of Contents

stock at a conversion rate of 22.8571 shares per \$1,000 principal amount of notes (aggregate of approximately 12.6 million shares) at any time prior to maturity on January 1, 2007. At any time on or after January 5, 2005, we may redeem the notes in whole or in part at the following prices expressed as a percentage of the principal amount:

Redemption Period	Price
Beginning on January 5, 2005 and ending on December 31, 2005	100.80%
Beginning on January 1, 2006 and ending on December 31, 2006	100.40%
On January 1, 2007	100.00%

We are required to pay interest on January 1 and July 1 of each year, beginning July 1, 2002. Debt issuance costs of \$12.4 million are being amortized over a five-year term using the straight-line method, which approximates the effective interest rate method. The amortization of these debt issuance costs will accelerate upon early redemption or conversion of the notes. The offer and sale of the notes was exempt from the registration requirements of the Securities Act of 1933, as amended, pursuant to Section 4(2). On March 21, 2002 we filed a registration statement (Reg. No. 333-84698) for the resale of the notes and the shares of common stock issuable upon conversion of the notes. This registration statement was declared effective by the SEC on May 23, 2002. The net proceeds of \$537.6 million were invested in United States government agency debt securities and remain available for general corporate purposes, including working capital and capital expenditures.

On February 5, 2002, our Board of Directors adopted a stockholder rights plan. Under the plan, we declared and paid a dividend of one right for each share of common stock held by stockholders of record as of the close of business on February 19, 2002. Each right initially entitles stockholders to purchase a fractional share of our preferred stock at \$280 per share. However, the rights are not immediately exercisable and will become exercisable only upon the occurrence of certain events. If a person or group acquires or announces a tender or exchange offer that would result in the acquisition of 15 percent or more of our common stock while the stockholder rights plan remains in place, then, unless the rights are redeemed by us for \$0.001 per right, the rights will become exercisable by all rights holders except the acquiring person or group for shares of us or the third party acquirer having a value of twice the right's then-current exercise price. The stockholder rights plan may have the effect of deterring or delaying a change in control of Brocade.

Item 6. Exhibits and Reports on Form 8-K

(a) Exhibits.

The exhibits listed below are required by Item 601 of Regulation S-K. Each management contract or compensatory plan or arrangement required to be filed as an exhibit to this Form 10-Q has been identified.

Exhibit Number	Description of Document
3.1 (8)	Amended and Restated Certificate of Incorporation.
3.2 (1)	Bylaws of the Registrant.
3.3 (10)	Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock of Brocade Communications Systems, Inc. (included in Exhibit 10.32)
4.1 (1)	Form of Registrant's Common Stock certificate.
4.2 (9)	Indenture, dated as of December 21, 2001, between Brocade and State Street Bank and Trust Company of California, N.A.
4.3 (9)	Form of Note (included in Exhibit 4.2)
4.4 (9)	Registration Rights Agreement, dated as of December 21, 2001, by and among Brocade and Morgan Stanley & Co. Incorporated, Goldman, Sachs & Co., Salomon Smith Barney Inc. and Merrill Lynch Pierce Fenner and Smith Incorporated.
10.1 (1) *	Form of Indemnification Agreement entered into between Brocade and each of its directors and executive officers.
10.2 (1) *	1995 Equity Incentive Plan and forms of agreements thereunder.
10.3 (1) *	1998 Equity Incentive Plan and forms of agreements thereunder.
10.4 (1) *	1998 Executive Equity Incentive Plan and forms of agreements thereunder.
10.5 (6) *	Amended and Restated 1999 Director Option Plan as of April 17, 2001, and form of agreement thereunder.
10.6 (2) *	1999 Employee Stock Purchase Plan.
10.7 (2) *	1999 Stock Plan and forms of agreements thereunder.
10.8 (2) *	1999 Nonstatutory Stock Option Plan and forms of agreements thereunder.
10.9 (1)	Master Equipment Lease Agreement between Venture Lending & Leasing, Inc. and Brocade, dated September 5, 1996.
10.10 (1) #	Acknowledgement between Wind River Systems, Inc. and Brocade, dated April 22, 1999.

[Table of Contents](#)

Exhibit Number	Description of Document
10.11 (1) *	Letter Agreement with Michael J. Byrd, dated April 5, 1999.
10.12 (3) #	Manufacturing Agreement between Soletron California Corporation and Brocade, dated July 30, 1999.
10.13 (3)	Master Lease Agreement between Spieker Properties and Brocade, dated December 17, 1999.
10.14 (7)	First Amendment to Lease between Spieker Properties and Brocade, dated February 16, 2000.
10.15 (7)	Second Amendment to Lease between Spieker Properties and Brocade, dated August 11, 2000.
10.16 (4)	Credit Agreement between Comerica Bank-California and Brocade, dated January 5, 2000.
10.17 (7)	First Amendment to Credit Agreement between Comerica Bank-California and Brocade, dated March 21, 2000.
10.18 (7)	Second Amendment to Credit Agreement between Comerica Bank-California and Brocade, dated September 20, 2000.
10.19 (7)	Master Lease Agreement between Spieker Properties and Brocade, dated July 26, 2000.
10.20 (7) #	Purchase Agreement between Compaq Computer Corporation and Brocade, dated February 1, 2000.
10.21 (7) #	Purchase Agreement between EMC Corporation and Brocade, dated January 25, 2000.
10.22 (7) *	Promissory Note between David A. Smith and Brocade, dated April 27, 2000.
10.23 (8) #	Extension Agreement between EMC Corporation and Brocade, dated December 18, 2000.
10.24 (8) #	Goods Agreement between International Business Machines Corporation and Brocade, dated April 15, 1999.
10.25 (8)	Amendment #1 to the Goods Agreement between International Business Machines Corporation and Brocade.
10.26 (8) #	Statement of Work #1 between International Business Machines Corporation and Brocade.
10.27 (8) #	Amendment #3 to Statement of Work #1 between International Business Machines Corporation and Brocade.
10.28 (8) #	Amendment #4 to Statement of Work #1 between International Business Machines Corporation and Brocade.
10.29 (8) #	Statement of Work #2 between International Business Machines Corporation and Brocade.
10.30 (5)	Third Amendment to Credit Agreement between Comerica Bank-California and Brocade, dated January 22, 2001.
10.31 (5)	Lease Agreement between MV Golden State San Jose, LLC and Brocade, dated December 1, 2000.
10.32 (11)	Preferred Stock Rights Agreement, dated as of February 7, 2002, between Brocade and Wells Fargo Bank, MN N.A., including the Certificate of Designation, the form of Rights Certificate and the Summary of Rights attached thereto as Exhibits A, B, and C, respectively.
10.33 (10) #	Amendment No. 5 to Statement of Work No. 1 between International Business Machines Corporation and Brocade.
10.34 (10) #	Amendment No. 6 to Statement of Work No. 1 between International Business Machines Corporation and Brocade.
10.35 (10) #	Amendment No. 1 to Statement of Work No. 2 between International Business Machines Corporation and Brocade.
10.36 (10)	Amendment No. 2 to Statement of Work No. 2 between International Business Machines Corporation and Brocade.
10.37 +	Amendment No. 7 to Statement of Work No. 1 between International Business Machines Corporation and Brocade.
10.38 +	OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated January 28, 2000 (2000 OEM Purchase Agreement).
10.39 +	Amendment to 2000 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated April 20, 2001.
10.40	Letter Amendment to 2000 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated January 25, 2002.
10.41 +	OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated April 20, 2001 (2001 OEM Purchase Agreement).
10.42 +	Amendment No. 1 to 2001 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated July 1, 2001.
10.43 +	Amendment No. 2 to 2001 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated November 6, 2001.
10.44 +	Amendment No. 3 to 2001 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated February 1, 2002.
10.45 +	Amendment No. 4 to 2001 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated June 5, 2002.
12.1	Statement of Computation of Ratio of Earnings to Fixed Charges
99.1	Certification Pursuant to 18 U.S.C Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

[Table of Contents](#)

- * Indicates management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 14(c) of Form 10-K.
- # Confidential treatment granted as to certain portions, which portions were omitted and filed separately with the Securities and Exchange Commission.
- + Confidential treatment requested as to certain portions, which portions are omitted and filed separately with the Securities and Exchange Commission.
- (1) Incorporated by reference from Brocade's Registration Statement on Form S-1 (Reg. No. 333-74711), as amended.
- (2) Incorporated by reference from Brocade's Registration Statement on Form S-8 (Reg. No. 333-95653) filed on January 28, 2000.
- (3) Incorporated by reference from Brocade's Annual Report on Form 10-K for the fiscal year ended October 31, 1999, as amended.
- (4) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended January 29, 2000.
- (5) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended January 27, 2001.
- (6) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended July 28, 2001.
- (7) Incorporated by reference from Brocade's Annual Report on Form 10-K for the fiscal year ended October 28, 2000.
- (8) Incorporated by reference from Brocade's Annual Report on Form 10-K for the fiscal year ended October 27, 2001.
- (9) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended January 26, 2002.
- (10) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended April 27, 2002.
- (11) Incorporated by reference from Brocade's Registration Statement on Form 8-A filed on February 11, 2002.

(b) Reports on Form 8-K.

We filed one report on Form 8-K during the quarter ended July 27, 2002. Information regarding the items reported on is as follows:

<u>Date</u>	<u>Item Reported On</u>
June 18, 2002	Change in Certifying Accountant, as amended on June 25, 2002.

Items 3, 4 and 5 are not applicable and have been omitted.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Brocade Communications Systems, Inc.

Date: August 27, 2002

By: /s/ ANTONIO CANOVA

Antonio Canova
Vice President, Finance and
Chief Financial Officer

EXHIBIT INDEX

Exhibit Number	Description of Document
3.1 (8)	Amended and Restated Certificate of Incorporation.
3.2 (1)	Bylaws of the Registrant.
3.3 (10)	Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock of Brocade Communications Systems, Inc. (included in Exhibit 10.32)
4.1 (1)	Form of Registrant's Common Stock certificate.
4.2 (9)	Indenture, dated as of December 21, 2001, between Brocade and State Street Bank and Trust Company of California, N.A.
4.3 (9)	Form of Note (included in Exhibit 4.2)
4.4 (9)	Registration Rights Agreement, dated as of December 21, 2001, by and among Brocade and Morgan Stanley & Co. Incorporated, Goldman, Sachs & Co., Salomon Smith Barney Inc. and Merrill Lynch Pierce Fenner and Smith Incorporated.
10.1 (1) *	Form of Indemnification Agreement entered into between Brocade and each of its directors and executive officers.
10.2 (1) *	1995 Equity Incentive Plan and forms of agreements thereunder.
10.3 (1) *	1998 Equity Incentive Plan and forms of agreements thereunder.
10.4 (1) *	1998 Executive Equity Incentive Plan and forms of agreements thereunder.
10.5 (6) *	Amended and Restated 1999 Director Option Plan as of April 17, 2001, and form of agreement thereunder.
10.6 (2) *	1999 Employee Stock Purchase Plan.
10.7 (2) *	1999 Stock Plan and forms of agreements thereunder.
10.8 (2) *	1999 Nonstatutory Stock Option Plan and forms of agreements thereunder.
10.9 (1)	Master Equipment Lease Agreement between Venture Lending & Leasing, Inc. and Brocade, dated September 5, 1996.
10.10 (1) #	Acknowledgement between Wind River Systems, Inc. and Brocade, dated April 22, 1999.

[Table of Contents](#)

Exhibit Number	Description of Document
10.11 (1) *	Letter Agreement with Michael J. Byrd, dated April 5, 1999.
10.12 (3) #	Manufacturing Agreement between Soletron California Corporation and Brocade, dated July 30, 1999.
10.13 (3)	Master Lease Agreement between Spieker Properties and Brocade, dated December 17, 1999.
10.14 (7)	First Amendment to Lease between Spieker Properties and Brocade, dated February 16, 2000.
10.15 (7)	Second Amendment to Lease between Spieker Properties and Brocade, dated August 11, 2000.
10.16 (4)	Credit Agreement between Comerica Bank-California and Brocade, dated January 5, 2000.
10.17 (7)	First Amendment to Credit Agreement between Comerica Bank-California and Brocade, dated March 21, 2000.
10.18 (7)	Second Amendment to Credit Agreement between Comerica Bank-California and Brocade, dated September 20, 2000.
10.19 (7)	Master Lease Agreement between Spieker Properties and Brocade, dated July 26, 2000.
10.20 (7) #	Purchase Agreement between Compaq Computer Corporation and Brocade, dated February 1, 2000.
10.21 (7) #	Purchase Agreement between EMC Corporation and Brocade, dated January 25, 2000.
10.22 (7) *	Promissory Note between David A. Smith and Brocade, dated April 27, 2000.
10.23 (8) #	Extension Agreement between EMC Corporation and Brocade, dated December 18, 2000.
10.24 (8) #	Goods Agreement between International Business Machines Corporation and Brocade, dated April 15, 1999.
10.25 (8)	Amendment #1 to the Goods Agreement between International Business Machines Corporation and Brocade.
10.26 (8) #	Statement of Work #1 between International Business Machines Corporation and Brocade.
10.27 (8) #	Amendment #3 to Statement of Work #1 between International Business Machines Corporation and Brocade.
10.28 (8) #	Amendment #4 to Statement of Work #1 between International Business Machines Corporation and Brocade.
10.29 (8) #	Statement of Work #2 between International Business Machines Corporation and Brocade.
10.30 (5)	Third Amendment to Credit Agreement between Comerica Bank-California and Brocade, dated January 22, 2001.
10.31 (5)	Lease Agreement between MV Golden State San Jose, LLC and Brocade, dated December 1, 2000.
10.32 (11)	Preferred Stock Rights Agreement, dated as of February 7, 2002, between Brocade and Wells Fargo Bank, MN N.A., including the Certificate of Designation, the form of Rights Certificate and the Summary of Rights attached thereto as Exhibits A, B, and C, respectively.
10.33 (10) #	Amendment No. 5 to Statement of Work No. 1 between International Business Machines Corporation and Brocade.
10.34 (10) #	Amendment No. 6 to Statement of Work No. 1 between International Business Machines Corporation and Brocade.
10.35 (10) #	Amendment No. 1 to Statement of Work No. 2 between International Business Machines Corporation and Brocade.
10.36 (10)	Amendment No. 2 to Statement of Work No. 2 between International Business Machines Corporation and Brocade.
10.37 +	Amendment No. 7 to Statement of Work No. 1 between International Business Machines Corporation and Brocade.
10.38 +	OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated January 28, 2000 (2000 OEM Purchase Agreement).
10.39 +	Amendment to 2000 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated April 20, 2001.
10.40	Letter Amendment to 2000 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated January 25, 2002.
10.41 +	OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated April 20, 2001 (2001 OEM Purchase Agreement).
10.42 +	Amendment No. 1 to 2001 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated July 1, 2001.
10.43 +	Amendment No. 2 to 2001 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated November 6, 2001.
10.44 +	Amendment No. 3 to 2001 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated February 1, 2002.
10.45 +	Amendment No. 4 to 2001 OEM Purchase Agreement between Brocade and Hewlett-Packard Company, dated June 5, 2002.
12.1	Statement of Computation of Ratio of Earnings to Fixed Charges
99.1	Certification Pursuant to 18 U.S.C Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

[Table of Contents](#)

- * Indicates management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 14(c) of Form 10-K.
- # Confidential treatment granted as to certain portions, which portions were omitted and filed separately with the Securities and Exchange Commission.
- + Confidential treatment requested as to certain portions, which portions are omitted and filed separately with the Securities and Exchange Commission.
- (1) Incorporated by reference from Brocade's Registration Statement on Form S-1 (Reg. No. 333-74711), as amended.
- (2) Incorporated by reference from Brocade's Registration Statement on Form S-8 (Reg. No. 333-95653) filed on January 28, 2000.
- (3) Incorporated by reference from Brocade's Annual Report on Form 10-K for the fiscal year ended October 31, 1999, as amended.
- (4) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended January 29, 2000.
- (5) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended January 27, 2001.
- (6) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended July 28, 2001.
- (7) Incorporated by reference from Brocade's Annual Report on Form 10-K for the fiscal year ended October 28, 2000.
- (8) Incorporated by reference from Brocade's Annual Report on Form 10-K for the fiscal year ended October 27, 2001.
- (9) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended January 26, 2002.
- (10) Incorporated by reference from Brocade's Quarterly Report on Form 10-Q for the fiscal quarter ended April 27, 2002.
- (11) Incorporated by reference from Brocade's Registration Statement on Form 8-A filed on February 11, 2002.

5600 Cottle Road
 San Jose, CA 95193 0001

June 6, 2002

Brocade Communications Systems, Inc.
 1901 Guadalupe Parkway
 San Jose, CA 95131

Attention: Mr. Patrick Johnston

Subject: Amendment 7 to SOW#1 of the IBM/Brocade Goods Agreement ROC-P-68

Dear Patrick:

This letter (the "Amendment") serves as Amendment Number 7 to SOW#1, including all amendments thereto ("SOW#1") of the Goods Agreement ROC-P-68, including all amendments thereto (the "Goods Agreement") which the parties hereto do mutually agree to amend as follows:

1. Delete the table in Section 1.1, "Specifications," and replace as follows:

IBM SPECIFICATION/ATTACHMENTS (IF APPLICABLE)	ENGINEERING CHANGE LEVEL	DESCRIPTION
[*]	Version 1.0	SilkWorm 2000 Family Product Specification 90-0000001-01
[*]	Dated 8/06/2001	Supplier Quality Attachment
[*]	Version 10	Packaging and Materials Handling Specification
[*]	Dated 10/17/00	IBM CSP Requirements
[*]	Version 2.0	Brocade Fabric OS Publication 53-0001487-03
[*]	Version 2.1	Brocade WebTools Reference Manual Publication 53-0001490-02
[*]	Version 2.0	Brocade Zoning Reference Manual Publication 53-0001488-02
[*]	Version 1.0	SilkWorm 3800 Product Specification -- 90-0000077-01
	Version TBD	SilkWorm 3900 Product Specification -- TBD
	Version 1.0	SilkWorm 3200 Product Specification Reference 90-0000077-01
	Version A	SilkWorm 12000 Product Specification 79-0000001-01
	Dated 05/01/02	2109-M12, CTO Training Workbook
	V. 4-09-02	"SW12000" Port Card Installation Guidelines

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

2. Delete pricing table in its entirety in Section 2.1, "Pricing" and replace with the following:

IBM P/N / NUMA-Q P/N	BROCADE P/N	DESCRIPTION	UNIT PRICE
[*]	[*]	8-Port Fibre Channel Switch Single Power Supply (SW2400) Includes SES, Web tools, Zoning and Fabric Watch -- whole unit switch Product	[*]
[*]	[*]	16 Port Fibre Channel Switch Single Power Supply (SW2800) Includes SES, Web tools, Zoning and Fabric Watch -- whole unit switch Product	[*]
[*]	[*]	Silkworm 2000 Power Supply	[*]
[*]	[*]	Mainboard, SW 2400 (8-port)	[*]
[*]	[*]	Fan Tray, SW 2400 (8-port)	[*]
[*]	[*]	Chassis, SW 2400 (8-port)	[*]
[*]	[*]	Mainboard, SW 2800 (16-port)	[*]
[*]	[*]	Fan Tray, SW 2800 (16-port)	[*]
[*]	[*]	Chassis, SW 2800 (16-port) with operator panel/ LCD	[*]
[*]	[*]	Quick Loop License	[*]
[*]	[*]	Fabric Watch License	[*]
[*]	[*]	Extended Fabrics	[*]
[*]	[*]	Remote Switch	[*]
[*]	[*]	16 Port Fibre Channel Switch Single Power Supply (SW3800) Includes Web tools, Zoning and Fabric Watch -- whole unit switch Product	[*]
[*]	[*]	32 Port Fibre Channel Switch Single Power Supply (SW3900) Includes SES, Webtools, Zoning and Fabric Watch -- whole unit switch Product	[*]
[*]	[*]	8 Port Fibre Channel	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

		Switch Single Power Supply (SW3200) Includes Web Tools	
[*]	[*]	Full Fabric Upgrade Includes Zoning and Fabric Watch	[*]
[*]	[*]	Fan (SW3800)	[*]
[*]	[*]	Power Supply (SW3800)	[*]
[*]	[*]	Mainboard FRU (SW3800)	[*]
[*]	[*]	Fan (SW3900)	[*]
[*]	[*]	Power Supply (SW3900)	[*]
[*]	[*]	Mainboard FRU (SW3900)	[*]
[*]	[*]	LUN Zoning	[*]
[*]	[*]	LUN Zoning	[*]
[*]	[*]	LUN Zoning	[*]
[*]	[*]	Advanced Security	[*]
[*]	[*]	Advanced Security	[*]
[*]	[*]	Advanced Security	[*]
[*]	[*]	Performance Bundle (Trunking and Performance Monitoring)	[*]
[*]	[*]	Performance Bundle (Trunking and Performance Monitoring)	[*]
[*]	[*]	Performance Bundle (Trunking and Performance Monitoring)	[*]
[*]	[*]	32 Port Fibre Channel Core Switch (SW12000) Includes 2 Stiletto Port Blades, 2 CP Blades, 4 Power Supplies, 3 Blowers, 6 Port Blade Filler Panels, 1 Cable Management Pillar, Fabric OS, Advanced Web Tools, Advanced Zoning, Fabric Watch, Performance Monitoring, Trunking.	[*]
[*]	[*]	Rack Mounting Kit	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

		14U, FRU	
[*]	[*]	Switch Blade 16 port, 2GB	[*]
[*]	[*]	Chassis Door, Includes Plastic and Metal door Components and IBM Front Badge	[*]
[*]	[*]	Control Processor Blade	[*]
[*]	[*]	Stiletto Port Blade Slot Filler Panel, SW12000, FRU	[*]
[*]	[*]	Power Supply, 180-264VAC, 1000W, FRU	[*]
[*]	[*]	Blower Assembly, FRU	[*]
[*]	[*]	Cable Management Pillar, FRU	[*]
[*]	[*]	WWN Card	[*]
[*]	[*]	Power Plug, Switch and Distribution Panel	[*]
[*]	[*]	Chassis FRU, includes backplane, blower and power supply backplane, AC and blower harness.	[*]
[*]	[*]	Rear WWN Bezel Assy	[*]
[*]	[*]	Cable Management Tray	[*]
[*]	[*]	AC Power Cord, FRU	[*]
[*]	[*]	AC Power Cord, UK/Ireland, 250V, FRU	[*]
[*]	[*]	AC Power Cord, Cont. Europe CEE7/7, FRU	[*]
[*]	[*]	AC Power Cord, AUST/INZ, 250V	[*]
[*]	[*]	AC Power Cord, Intl IEC	[*]
[*]	[*]	Remote Switch software	[*]
[*]	[*]	Extended Fabric software	[*]
[*]	[*]	Fabric Manager 3.x	[*]

All prices are in U.S. dollars.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

3. Add the following sentence prior to the first sentence in Section 3.0, "Rescheduling and Cancellation":

"Except for Products identified in Section 4.0 "Replenishment Logistics Attachment", Products will be subject to the terms herein stated in Section 3.0."

4. Section 4.0, "Replenishment Logistics Attachment" delete in its entirety and replace with the following:

"4.0 REPLENISHMENT LOGISTICS ATTACHMENT

4.1 PULL DEFINITIONS

"Pull Products" means Products specified in the Pull Product Profile in Section 4.6 below. "Pull Product Profile" or "Pull Profile" or "MIRS Profile" means the table in Section 4.6 below, describing the Pull Products and process including, but not limited to, Product Type, Part Number, Replenishment Lead-Time and Packaging Specifications.

"Pull Purchase Order" or "Pro forma Purchase Order" or "PPO" means a blanket PO used for invoicing, receiving and forecasting purposes and does not represent a firm offer by Buyer nor bind Buyer to any quantity or delivery date.

"Upside Flexibility" means a percentage of Pull Products specified in the Pull Profile in excess of the Planning Schedule Quantity.

"Buffer Inventory Replenishment Lead-time" means the time from Seller's receipt of Buyer's Planning Schedule for Supplier to replenish the Buffer Inventory.

"Planning Schedule" means Buyer's forecast of requirements for Pull Products.

"Pull Notification" or "Shipping Schedule" means Buyer's only authorization (WA) for Supplier to deliver a specified quantity of Pull Products.

"Pull Notification Lead-Time" means the time from Supplier's receipt of a Pull Notification to shipment of the Pull Products to Buyer's location.

"Pull Program Inventory" means the minimum inventory for which Supplier is responsible to maintain, to satisfy Buyer's quantities as specified in the Planning Schedule.

"Buffer Inventory" means the additional inventory that Supplier keeps as a safety inventory.

4.2 PLANNING

Buyer will issue a PPO to Supplier for all Pull Products. Buyer may issue a Planning Schedule at intervals as specified in the Pull Profile, the most recent Planning Schedule to supersede all previous Planning Schedules. The Planning Schedule provides a forecast of requirements for the Pull Products and establishes Upside Flexibility, if any, with the Supplier.

4.3 PULL DELIVERY

Supplier will deliver to Buyer on the delivery date the Pull Products specified in the Pull Notifications issued by Buyer, provided such Pull Notifications do not exceed the Planning Schedule Quantity. To the extent practicable, Supplier will comply with Pull Notifications for quantities of Pull Products in excess of the Planning Schedule Quantity, but at a minimum in accordance with the Upside Flexibility.

4.4 PULL LIMITATION OF LIABILITY

Buyer makes no representation or warranty and assumes no liability regarding the quantity of Pull Products that it will purchase.

4.5 END OF LIFE ORDER

Pull Products that Supplier has provided a written End of Life notice to Buyer will not be subject to the terms contained in Section 4.0 Replenishment Logistics Attachment, effective when Buyer submits a EOL purchase order (WA) for such products pursuant with Section 2.10 "Notice of Product Withdrawal" of SOW#1.

4.6 PULL PRODUCT PROFILE

PRODUCT PART NUMBER AND DESCRIPTION	[*]
PULL PROGRAM INVENTORY	Current week's Planning Schedule quantity.
BUFFER INVENTORY	One (1) week inventory based on rolling weekly planning schedule, that is in addition to the Pull Program Inventory.
PULL PURCHASE ORDER	Quarterly
CANCELLATION	Unused quantities on PPO and Planning Schedule shall be cancelled. Pull Notification may not be cancelled.
RESCHEDULE	Via Planning Schedule
BUFFER INVENTORY REPLENISHMENT LEAD TIME	[*] days
PULL NOTIFICATION LEAD-TIME	[*] days
PULL NOTIFICATION COMMUNICATION VEHICLE	Email
PULL NOTIFICATION FREQUENCY	Weekly or as required
PLANNING SCHEDULE (FORECAST)	Six month rolling (first 13 weeks in weekly increments, balance monthly)
PLANNING SCHEDULE FREQUENCY	Minimum monthly (with weekly review, planning schedule updated as necessary to maximize the Upside Flexibility).
UPSIDE FLEXIBILITY (% BASED ON AFFECTED 4 WEEK FORECAST PLANNING SCHEDULE)	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

5. Add after the second sentence in Section 9.3, "Post Warranty Services," "Pricing" the following:

"The post Warranty repair (CSP) pricing for FRU's used in the 2109-M12 (SW12000) shall be as follows.

18P5017	XIB-12000-0101	Port Blade	[*]
18P5035	XIB-12000-0103	CP Blade	[*]
18P5128	XIB-12000-0010	Chassis FRU	[*]

6. Delete Section 2.6, "Delivery", in its entirety and replace with the following:

ExWorks (IncoTerms 2001, location Brocade Contract Manufacturer).

7. Delete the last sentence in Section 9.3 "Post Warranty Services", "Packaging and Delivery" and replace with the following:

"The TAT for Serviced Products will not be more than [*] days after receipt of said Products, unless specified otherwise. Seller will use commercially reasonable efforts to reduce the TAT days and make adjustment to Buyer accordingly."

Please have your authorized representative indicate acceptance thereof by signing both copies of the Amendment and returning one copy to the attention of Karen Takahashi at 5600 Cottle Road, San Jose, California 95193.

The effective date of this Amendment shall be the date on the top of this Amendment (the "Effective Date").

The parties acknowledge that they have read this Amendment, understand it, and agree to be bound by its terms and conditions. All capitalized terms not defined herein shall have the meaning set forth in the Goods Agreement or the SOW #1. All other terms and conditions of the Goods Agreement and SOW#1 that are unaffected by the revisions set forth in this Amendment shall remain in full force and effect. Further, the parties agree that this Amendment and the Goods Agreement and SOW#1 are the complete and exclusive statement of the agreement between the parties, superseding all proposals or other prior agreement, oral or written, and all other communications between the parties relating to this subject.

ACCEPTED AND AGREED TO:
INTERNATIONAL BUSINESS MACHINES CORPORATION

ACCEPTED AND AGREED TO:
BROCADE COMMUNICATIONS SYSTEMS, INC.

By: _____
Authorized Signature Date

By: _____
Authorized Signature Date

Type or Print Name

Type or Print Name

Title & Organization

Title & Organization

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE/HP CONFIDENTIAL

OEM PURCHASE AGREEMENT

BY AND BETWEEN

HEWLETT-PACKARD COMPANY

AND

BROCADE COMMUNICATIONS SYSTEMS, INC.

OEM AGREEMENT

TABLE OF CONTENTS

1. SCOPE OF AGREEMENT.....1
1.1 General.....1
1.2 Eligible Purchasers.....1
1.3 Term Of Agreement.....1

2. DEFINITIONS.....1

3. ORDER AND SHIPMENT OF OEM PRODUCTS.....3
3.1 Orders.....3
3.2 Order Acknowledgment.....3
3.3 Emergency Orders.....3
3.4 Forecasts.....4
3.5 Lead Time.....4
3.6 Inventory Requirement.....4
3.7 Order Changes.....4
3.8 Shipment Requirements.....4
3.9 HP Option To Accept Overshipments.....4
3.10 Meeting Shipment Dates.....5
3.11 No Advance Shipment.....5
3.12 Title And Risk Of Loss.....5
3.13 Packing List.....5
3.14 Packaging.....5
3.15 Responsibility For Damage.....5

4. PRICES AND PAYMENT TERMS.....5
4.1 OEM Product Prices.....5
4.2 Changed Prices.....6
4.3 Payment Procedure.....6
4.4 [*] Warranty.....6
4.5 Sales Taxes And Duties.....6

5. NONCOMPLYING PRODUCTS.....6
5.1 Repair or Replacement.....6
5.2 Replacement and Repair Period.....6

6. RETURN OF PRODUCTS.....6
6.1 Return Materials Authorization.....6
6.2 Return Charges.....7
6.3 Duty To Remove Marks Or Destroy Noncomplying Products.....7

7. ENGINEERING PROCESS OR DESIGN CHANGES.....7
7.1 Supplier Proposed Changes.....7
7.2 Request for Enhancement.....7

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

7.3 HP Proposed Changes.....7
7.4 [*] to Proposed Changes.....7
7.5 Safety Standard Changes.....8
7.6 Technical Cooperation.....8

8. QUALITY.....8
8.1 Quality Program.....8
8.2 HP's Right To [*].....9

9. WARRANTIES.....9
9.1 Hardware Product Warranties.....9
9.2 Product Software Warranties.....10
9.3 Survival Of Warranties.....10
9.4 Epidemic Failure Warranty.....10
9.5 DISCLAIMER.....10

10. SUPPORT SERVICES.....10
10.1 General.....10
10.2 New HP Products.....11
10.3 HP Property.....11
10.4 Substitute Products.....11
10.5 Failure Rate.....11
10.6 Class Failure Remedies.....11
10.7 Survival Of Support Obligations.....12

11. OBSOLESCENCE AND MANUFACTURING RIGHTS.....12
11.1 Lifetime Buy Rights.....12
11.2 Consulting Services.....13

12. TRAINING.....13
12.1 Technical Training.....13
12.2 Presales Training.....13
12.3 HP's Rights in Training Classes and Materials.....13

13. MARKETING AND LICENSING.....13
13.1 Marketing and Distribution.....13
13.2 Distribution Rights.....14
13.3 No Rights In Marks.....14
13.4 Private Labeling.....14
13.5 HP [*].....14
13.6 Software License.....15
13.7 Documentation License.....15

14. INTELLECTUAL PROPERTY PROTECTION.....15
14.1 Supplier's [*].....15
14.2 HP's Duty To Notify.....16
14.3 Remedies For Infringing Products.....16

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

14.4 Limitations.....16

15. COUNTRY OF MANUFACTURE AND [*].....16

15.1 Country Of Origin Certification.....16

15.2 Country Of Origin Marking.....16

15.3 [*].....17

16. GOVERNMENTAL COMPLIANCE.....17

16.1 Duty to Comply.....17

16.2 Procurement Regulations.....17

16.3 Ozone Depleting Substances.....17

17. FORCE MAJEURE EVENTS.....17

17.1 Delaying Causes.....17

17.2 HP Option.....18

17.3 [*] Of Agreement.....18

18. EVENTS OF DEFAULT.....18

18.1 Notice Of Breach.....18

18.2 Causes Of Breach.....18

18.3 [*] Rights Upon Breach.....19

18.4 [*].....19

18.5 Escalated Resolution Process.....19

19. CONFIDENTIAL INFORMATION.....19

19.1 Confidential Information.....19

19.2 Exclusions.....19

20. INSURANCE REQUIREMENTS.....20

20.1 Insurance Coverage.....20

20.2 Claims Made Coverage.....20

20.3 Additional Requirements.....20

21. LIMITATION OF LIABILITY.....21

22. TERMINATION.....21

22.1 Outstanding Orders.....21

22.2 Return Of HP Property.....21

22.3 Surviving Provisions.....21

23. MISCELLANEOUS.....21

23.1 Notices.....21

23.2 Exhibits.....22

23.3 Independent Contractors.....22

23.4 Assignment.....22

23.5 No Waiver.....22

23.6 Reference To Days.....22

23.7 Headings.....22

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

23.8 Publicity.....22
23.9 Severability..... 23
23.10 Subcontractors and Subsidiaries.....23
23.11 Entire Agreement.....23
23.12 Governing Law.....23
23.13 Exhibits.....23

OEM PURCHASE AGREEMENT

THIS AGREEMENT is entered into between HEWLETT-PACKARD COMPANY, a Delaware corporation ("HP") and BROCADE COMMUNICATIONS SYSTEMS, INC., a Delaware corporation ("Supplier"), effective as of January 28, 2000, (the "Effective Date"). The parties hereby agree as follows:

1. SCOPE OF AGREEMENT

- 1.1 General. This Agreement specifies the terms and conditions under which Supplier will sell, license, and support the OEM Products listed in Exhibit A to this Agreement. The OEM Products are regarded as "Original Equipment Manufacturer" products that will either be sold separately or incorporated into HP Products for resale worldwide under the Supplier's label or under HP's private label. The OEM Products and the HP Products will be marketed, serviced, and supported by HP's field organization and channel partners, subject to the marketing, service, and support obligations of Supplier pursuant to this Agreement.
- 1.2 Eligible Purchasers. This Agreement enables HP, HP Subsidiaries, and [*] to purchase OEM Products from Supplier under the terms of this Agreement or any subsequent Product Addendum. The terms and conditions of this Agreement will control and take precedence over any conflicting terms in a Product Addendum unless a Product Addendum specifically refers to and amends a term of this Agreement.
- 1.3 Term Of Agreement. This Agreement will commence as of the Effective Date and continue for a two-year period (the "Term"), unless terminated earlier under the terms of this Agreement.

2. DEFINITIONS

The following capitalized terms will have these meanings throughout this Agreement:

- 2.1 "Documentation" means the user and technical manuals and other documentation that Supplier will make generally available with the OEM Products.
- 2.2 "Eligible Purchasers" mean those parties authorized to purchase OEM Products under this Agreement as listed in Exhibit B attached hereto.
- 2.3 "Failure" means an instance where the product does not conform to specifications in Exhibit A or contains a defect in workmanship, materials, or design that prevents the OEM Product from fully performing as set forth in Exhibit A.
- 2.4 "Forecast" means HP's estimate, submitted to Supplier in writing, of its purchase requirements over a [*] period, or such other period designated by the parties.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 2.5 "HP Products" means the HP products or systems that will incorporate the OEM Products and that will be marketed and sold to end-user customers by HP and its distributors.
- 2.6 "HP Property" means all property, including without limitation, models, tools, equipment, copies of designs and documentation and other materials that may be furnished to Supplier by HP or on HP's behalf or separately paid for by HP for use by Supplier in connection with this Agreement.
- 2.7 "Intellectual Property Rights" means all rights in patents, copyrights, moral rights, trade secrets, mask works, Marks, and other similar rights.
- 2.8 "Lead Time" means the time between the date an Order is received by Supplier and the Shipment Date.
- 2.9 "Marks" means the trademarks, service marks, trademark and service mark applications, trade dress, trade names, logos, insignia, symbols, designs or other marks identifying a party or its products.
- 2.10 "Noncomplying Product" means any OEM Product received by HP that does not comply with the [*] as set forth in Exhibit A of this Agreement. Noncomplying Products include, without limitation, dead-on-arrival products, overshipments, and early shipments.
- [*] "OEM Products" means the products listed in Exhibit A, all related Documentation, Parts, and other deliverables provided pursuant to this Agreement. For purposes of this Agreement, OEM Products shall not include any [*]
- 2.12 "Orders" means a written or electronic purchase order or release issued by HP to Supplier for purchase of the OEM Products.
- 2.13 "Parts" means the replacement parts, components, consumables or other products that may be supplied in conjunction with or as additions to the OEM Products.
- 2.14 "Product Addendum" means an addendum to this Agreement entered into between Supplier and an Eligible Purchaser naming additional OEM Products and product specific requirements in addition to those requirements specified in this Agreement.
- 2.15 "Shipment Date" means the date confirmed to HP by Supplier regarding a particular Order for the shipment of OEM products by Supplier to the destination required under the Order.
- 2.16 "Software" means any software or firmware included or bundled with the OEM Products, as designated in the description of OEM Products in Exhibit A.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 2.17 "Specifications" means the technical and functional requirements for the OEM Products as specified or referenced in Exhibit A or as agreed to in writing by the parties.
- 2.18 "Subcontractor" means a third party listed in Exhibit B that may purchase OEM Products under the terms of this Agreement on behalf of HP.
- 2.19 "Subsidiary" means an entity controlled by or under common control with a party to this Agreement, through ownership or control of more than 50% of the voting power of the shares or other means of ownership or control, provided that such control continues to exist.
- 2.20 "Support" means ongoing maintenance and technical support for the OEM Products provided by Supplier to HP as more fully described in Exhibit D.
- 2.21 "Technical Information" means Supplier's information and technology necessary to support OEM Products and to exercise any other rights provided under this Agreement.

3. ORDER AND SHIPMENT OF OEM PRODUCTS

- 3.1 Orders. Each delivery of OEM Products will be initiated by an Order issued to Supplier by HP. Each Order will include: (i) unit quantity; (ii) unit price; (iii) shipping destination; (iv) Shipment Date; and (v) other instructions or requirements pertinent to the Order. HP may schedule regular intervals for deliveries by an appropriate Order setting forth the intervals. To the extent of any inconsistency between the terms of an Order and the terms of this Agreement, the terms specified in this Agreement will control and take precedence. Any additional terms contained in Orders or Supplier's Order acknowledgements shall not be binding unless accepted by the other party in writing.
- 3.2 Order Acknowledgment. An Order will be deemed to have been placed as of the date of receipt of the Order by Supplier. Supplier will promptly confirm the receipt of an Order electronically or through facsimile to HP within [*]. Orders within Forecasts and Lead Time requirements of this Agreement will be deemed accepted upon receipt by Supplier. For Orders exceeding Forecast, Supplier will have [*] in which to reject the order with respect to the excess. If an HP Order exceeds the Forecast or shortens the Lead Time, Supplier will use commercially reasonable efforts to fill such excess or accommodate such shorter Lead Time.
- 3.3 Emergency Orders. If HP deems it necessary, HP may order OEM Products by facsimile on an emergency basis ("Emergency Order") subject to the availability of such OEM Products in Supplier's inventory. Supplier will use all reasonable efforts to ship the Emergency Order to HP's designated Eligible Purchaser(s) immediately upon receipt of such Emergency Order by Supplier. Subject to HP's approval, HP will pay any additional expenses related to such Emergency Orders.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 3.4 Forecasts. HP will provide a [*] rolling Forecast [*] of its projected Orders. Any quantities listed in any Forecast or other correspondence between the parties are only estimates made as an accommodation for planning purposes and do not constitute a commitment on HP's part to purchase such quantity. HP may, [*] revise any such Forecasts, provided that such revisions (i) occur at least [*] prior to the projected Order Shipment Date, and (ii) shall not result in an increase of its projected Orders greater than [*] of the amount of Orders in the immediately preceding Forecast. Quantities and Shipment Dates in Forecasts and revisions thereof which are not provided to Supplier in accordance with this Section 3.4 shall not be binding upon Supplier for the purposes of Section 3.2 above.
- 3.5 Lead Time. Lead time for each OEM Product and FRU product will be no more than [*] for forecasted demand and [*] unforecasted demand [*].
- 3.6 Inventory Requirement. Supplier will maintain a [*] equal to [*] to support Order changes for each OEM Product. If this inventory is [*], Supplier will [*] as soon as reasonably possible after [*] In addition, Supplier will [*] of OEM Products in inventory [*] of inventory.
- 3.7 Order Changes. HP may [*], postpone, decrease, or reschedule any Order subject to the [*] set forth immediately below. In the event HP increases any Order, Supplier will use [*] reasonable [*] to fulfill such Order for the Shipment Date requested by HP.

[*]	PERMISSIBLE [*]	PERMISSIBLE [*]	PERMISSIBLE [*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]

- 3.8 Shipment Requirements. All Order are required to be shipped complete. Supplier will give HP [*] notice if it knows that it cannot meet a Shipment Date or that only a portion of the OEM Products will be available for shipment to meet a Shipment Date. For partial shipments, Supplier will ship the available OEM Products unless directed by HP to reschedule shipment. If Supplier ships any OEM Product by a method other than as specified in the corresponding Order, [*] any [*] in the [*] of freight.
- 3.9 HP Option To Accept Overshipments. If Supplier ships more OEM Products than ordered, the amount of the overshipment may [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*] to Supplier pursuant to Article 6 below, [*] subject to the payment procedures in Section 4.3.

- 3.10 Meeting Shipment Dates. If due to Supplier's failure to make a timely shipment, the specified method of transportation would not permit Supplier to meet the Shipment Date, the OEM Products affected will be shipped by air transportation or other expedient means acceptable to HP. [*] for any [*] in the freight [*] over that which [*] by the specified method of transportation.
- 3.11 No Advance Shipment. If OEM Products are shipped more than [*] in advance of the Shipment Date, HP may [*] the OEM Products pursuant to Article 6 below [*] with payment due as provided in Section 4.3 below.
- 3.12 Title And Risk Of Loss. Shipments will be [*] point. Title to OEM Product hardware and media ordered under this Agreement and risk of loss or damage will pass from Supplier to HP [*], subject to the provisions in Sections 3.12, 3.13, and 3.14 below.
- 3.13 Packing List. Each delivery of OEM Products to HP must include a packing list that contains at least:
- (a) The Order number and the HP part number;
 - (b) The quantity of OEM Products or Parts shipped; and,
 - (c) The date of shipment.
- 3.14 Packaging. Supplier must preserve, package, handle, and pack all OEM Products as specified in Exhibit A.
- 3.15 Responsibility For Damage. [*] will be [*] for [*] due to its [*] to [*] preserve, package, handle, or pack OEM Products in accordance with Exhibit A. In order to assert a claim against [*] under the provisions of this Section 3.15, [*] be required to first assert any claims for such loss or damage against the common carrier involved. Further, [*] be [*] for [*] due to a release of chemicals or other hazardous materials to the environment [*] release of the corresponding OEM Product to the designated carrier.

4. PRICES AND PAYMENT TERMS

- 4.1 OEM Product Prices. Supplier's prices for the OEM Products and Parts are listed in Exhibit C, payable in U.S. currency unless otherwise agreed, and may not be increased without HP's consent. Supplier and HP agree to review OEM Product prices [*].

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 4.2 Changed Prices. If during the Term changed prices or price formulas are put in effect by mutual agreement of HP and Supplier, [*] or price formulas are otherwise put in effect by Supplier, such prices or price formulas (if resulting in [*] than the [*] will apply to all Orders accepted by Supplier after the effective date of such prices or price formulas and to all unshipped Orders.
- 4.3 Payment Procedure. Payment for OEM Products will be [*] of the applicable invoice from Supplier. Except as otherwise provided in this Agreement, associated freight expenses and duties will be paid directly by [*] related to or payments for unordered or Nonconforming Products, provided that HP does not retain such unordered or Nonconforming Products.
- 4.4 [*] Warranty. If during the term, Supplier provides [*] of OEM Products [*], then Supplier agrees to [*] to HP [*] provided to the [*]. Supplier agrees to fulfill its obligations in this Section in good faith. In addition, HP may [*] due under this Agreement [*] upon Supplier's [*] issued to HP, which such Supplier [*] shall not be [*].
- 4.5 Sales Taxes And Duties. Prices are [*] of all [*] after delivery to the designated destination (other than taxes levied on Supplier's income) that Supplier may be required to collect or pay upon shipment of the OEM Products. Any such [*] must appear as a separate item on Supplier's invoice. [*] agrees [*] unless [*]. Where applicable, [*]

5. NONCOMPLYING PRODUCTS

- 5.1 Repair or Replacement. HP may elect [*], subject to the provisions of Article 18 below, return a Noncomplying Product for replacement or repair [*] In addition, HP may return for repair or replacement an entire lot of OEM Products if more than [*] of that lot consists of Noncomplying Products. In the event of an overshipment, HP may elect to keep the additional units, subject to the payment procedures in Section 4.3.
- 5.2 Replacement and Repair Period. Supplier will return the replacement or repaired OEM Products as soon as possible but in no event later than [*] after receipt of the Noncomplying Product from HP. Supplier's opportunity to cure any failure to meet such deadline, pursuant to Article 18 below, will apply to [*] during the Term.

6. RETURN OF PRODUCTS

- 6.1 Return Materials Authorization. All OEM Products returned by HP to Supplier must be accompanied by a Return Materials Authorization ("RMA"). Supplier will issue

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

an RMA for OEM Products which HP has verified Failure. Supplier will supply an RMA [*] of HP's request.

- 6.2 Return Charges. All Noncomplying Products returned by HP to Supplier within the respective warranty period for each OEM Product, and all replacement or repaired OEM Products shipped by Supplier to HP to replace Noncomplying Products, will [*].
- 6.3 Duty To Remove Marks Or Destroy Noncomplying Products. Supplier agrees not to sell, transfer distribute or otherwise convey any part, component, product or service bearing or incorporating HP Marks, part numbers or other identifiers, including any HP packaging, copyrights or code, to any party other than to Eligible Purchasers. Supplier will remove from all rejected, returned or unpurchased OEM Products any such HP Marks or identifiers, even if such removal would require destruction of the OEM Products. Supplier further agrees not to represent that such OEM Products are built for HP or to HP specifications. Supplier will defend and indemnify HP against any claims, losses, liabilities, costs or expenses that HP may incur as a result of Supplier's breach of this obligation.

7. ENGINEERING PROCESS OR DESIGN CHANGES

- 7.1 Supplier Proposed Changes. Supplier will not, other than in accordance with this Article 7, make or incorporate in OEM Products any [*].
- 7.2 Request for Enhancement. HP proposed changes and enhancement requests will be reviewed, as appropriate, by the Software Steering Committee and/or the Hardware Engineering core teams of Supplier. Where feasible and mutually agreed by HP and Supplier, such changes will be implemented in the [*] or as otherwise specifically agreed.
- 7.3 HP Proposed Changes. HP may change HP-supplied drawings, designs, or Specifications at any time prior to manufacture of corresponding released OEM Products. Any such change will be [*] If any such change reasonably and directly [*] of OEM Products, an [*] will be made provided that Supplier makes a written claim for an [*] within [*] from the date HP gives notice to Supplier of the change and HP agrees in writing to the [*].
- 7.4 [*] Proposed Changes. In the event that HP [*] in writing to an [*] in the stated time period on the basis that such [*] materially affects its ability to timely deliver the OEM Products or to fill outstanding orders, then HP may provide Supplier with written [*] and shall be entitled to (in addition to placing orders for the [*] submit purchase orders for the unchanged OEM Product(s) prior to the effective date of the implementation of the [*], for delivery no more

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

than [*] after the effective date of such implementation and in quantities which do not exceed the total quantity of OEM Product(s) ordered by HP in the [*] immediately preceding the date of [*].

7.5 Safety Standard Changes. Supplier will promptly give notice to HP if any upgrade, substitution, or other change to an OEM Product is required to make that product meet applicable safety standards or other governmental statutes, rules, orders, or regulations, even those that are not defined as Engineering Changes in Section 7.1 above. All affected OEM Products already purchased by HP may [*] either be returned to Supplier for upgrade to current revisions or upgraded by Supplier or HP in the field pursuant to the procedures outlined in Section 10.4 below. If an OEM Product meets applicable safety standards and other governmental requirements at the time of manufacture, HP and Supplier will [*] the [*] of any subsequent upgrade, substitution, or other required change required in an [*] based on good faith discussions between the parties. If such discussions render no [*], the parties may either mutually agree to escalate the matter to their respective vice presidents or general managers, as applicable, or in the alternative, [*] the [*].

7.6 Technical Cooperation. Subject to the confidentiality provisions in Article 19 below, during the term of the Agreement, the parties will discuss architecture and explore the possibilities for technically [*] Supplier and HP products. Each party will designate a technical representative to lead these discussions as well as to address other technical issues relating to the product enhancements and [*]. Supplier agrees to [*] with HP engineers the following for [*] (which such information [*]

(a) [*];

(b) [*] information sufficient for HP to (i) understand the related architecture and to develop test suites for resolution of potential problems, and (ii) to understand the implications of such potential problems with the ability to implement meshed configurations efficiently;

(c) [*] information on flow control/buffer allocation necessary for HP to implement efficient meshed configurations free of any significant performance problems;

(d) [*] and [*] for such items; and,

(e) [*] and [*].

8. QUALITY

8.1 Quality Program. Supplier agrees to maintain an objective quality program for all OEM Products. Supplier's program will be in accordance with the current version of

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

HP's Supplier Quality System as specified in Exhibit H and if applicable, any additional or substitute quality requirements agreed to by the parties in writing. Supplier will, upon HP's request, provide to HP copies of Supplier's program and supporting test documentation.

- 8.2 HP's Right To [*]. HP has the right to [*] at Supplier's [*] the OEM Products and [*] may be [*] at any time during the Term. HP's [*] may be for any reason [*] related to this Agreement, including to [*] with HP's [*], HP's right of [*] will apply as well to any [*] of Supplier. Supplier will inform [*] of HP's right to [*], and, if necessary, use all [*] such rights for HP.

9. WARRANTIES

- 9.1 Hardware Product Warranties. Supplier warrants that, for a period of [*] from the [*] for each OEM Product that all hardware components of the OEM Products under this Agreement will:

- [*] Be manufactured, processed, and assembled by Supplier or by companies under Supplier's direction, including, without limitation, [*]
- (2) Conform to the [*], and other criteria referred to in this Agreement or agreed to by the parties in writing;
- (3) Be new, except as otherwise provided by the parties;
- (4) Conform strictly to the requirements as set forth under the terms and conditions of this Agreement;
- (5) Be free from defects in design, material and workmanship;
- (6) Be free and clear of all liens, encumbrances, restrictions, and other claims against title or ownership;
- (7) Be "Year 2000 Compliant." Year 2000 Compliant products will perform without error, loss of data or loss of functionality arising from any failure to process, calculate, compare or sequence date data accurately. In addition, Year 2000 Compliant products will not cause any associated products or systems in which they may be used to fail in any of the ways described above. This Year 2000 Compliance Warranty will remain in effect through December 31, 2000, notwithstanding any other warranty period specified in this Agreement;
- (8) Notwithstanding the terms and conditions of Article 14 herein, not, to Supplier's reasonable knowledge, violate or infringe any third party

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Intellectual Property Rights and Supplier warrants that it is not aware of any facts upon which such claim could be made. If Supplier learns of any claim or any facts upon which claim could be made, it will [*] notify HP of this information.

9.2 Product Software Warranties. Supplier warrants that, for a period of [*] from the [*] for each OEM Product, all software elements of the OEM Products under this Agreement will conform to the Specifications and other criteria referred to in this Agreement or agreed to by the parties in writing.

9.3 Survival Of Warranties. All warranties specified above will survive any inspection, delivery, acceptance, or payment by HP and be in effect for the longer of Supplier's normal warranty period.

9.4 Epidemic Failure Warranty. In addition to the warranties specified above, Supplier warrants all OEM Products against epidemic failure for a period of [*] after the [*] of that OEM Product. An epidemic failure means:

(a) Unit failures that (i) are caused by the same component failure or defect, provided that such failure or defect is attributable to Supplier, and (ii) occur at a rate equal to or less than [*] over a [*], or;

(b) the occurrence of more than [*] classified as a [*] or higher safety incident defined as (i) a marginal condition that is likely to produce only minor bodily injury or property damage and is likely to occur after a [*] event, or (ii) a noncompliance event involving a safety-related standard, license, or testing agency evaluation, or;

(c) any known problem which, in HP's reasonable opinion subject to Supplier's concurrence (which such concurrence shall not be unreasonably withheld or delayed) creates a significant risk to the health or safety of individuals who operate the OEM product or to the continuous business operations of companies or organizations that employ the OEM product for an intended or reasonably foreseeable use.

9.5 DISCLAIMER. EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, SUPPLIER EXPRESSLY DISCLAIMS ALL OTHER REPRESENTATIONS, WARRANTIES, OR CONDITIONS, EITHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

10. SUPPORT SERVICES

10.1 General. Supplier will provide trained HP support personnel with Support for the OEM Products as specified in Exhibit D. Supplier will maintain such number of qualified personnel as is necessary to provide timely and knowledgeable maintenance and support service in accordance with the terms and conditions of Exhibit D.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Supplier warrants that all Support will be provided in a professional and workmanlike manner. HP will provide direct maintenance and support to HP's customers with respect to the use of the OEM product as distributed with HP Products. Supplier and HP will maintain and support each OEM product distributed by HP for at least [*] after the date of last shipment by Supplier to HP of that OEM Product or end-of-life, whichever occurs first. HP acknowledges that Supplier may independently offer and provide support services to OEM Product customers. However, in no event may Supplier use HP Confidential Information or HP Property to direct or provide such support without HP's prior consent. Response times and problem classification for the OEM Products will be as set forth in Exhibit (D).

- 10.2 New HP Products. Upon request by HP, Supplier will use its commercially reasonable efforts to provide HP with the OEM Products adapted for use with new releases of HP Products [*] and [*], if any, to be negotiated by the parties, provided that HP makes available to Supplier such HP Property as may be reasonably necessary for Supplier to develop any adaptation.
- 10.3 HP Property. HP may provide to Supplier HP Property under the terms of an HP Equipment Loan Agreement attached as Exhibit E to this Agreement, solely for use in Supplier's manufacturing, testing, adapting and supporting the OEM Products. All HP Property will be clearly segregated from Supplier's property and identified as the sole property of HP. HP Property may not be transferred, assigned, loaned or otherwise encumbered in any way. HP Property may be provided to third parties for fulfillment of Supplier's obligations hereunder only upon HP's prior written consent. HP property will be returned to HP [*], upon termination of this Agreement.
- 10.4 Substitute Products. If Supplier develops any generally available products that are to replace the OEM Product(s) or that are the same or substantially similar to the OEM Products available under this Agreement, HP will have the right to substitute the newer products at [*] as the substantially similar OEM Products for all subsequent purchases under this Agreement. Such substitute products must be compatible with the current version of the OEM Products.
- 10.5 Failure Rate. Notwithstanding that the warranties given in Section 9.1 above apply to [*] of the hardware components of OEM Products, Supplier and HP acknowledge that a failure rate of [*] per [*] units delivered over a [*] is expected. If the actual failure rate for OEM Products exceeds this expected rate, Supplier will provide additional engineering and technical support needed to bring the actual failure rate within the specified failure rate.
- 10.6 Class Failure Remedies. Upon the occurrence of any of the following events: (i) a failure rate exceeding the rate specified in Section 10.5 above; (ii) an epidemic failure as described in Section 9.3; or (iii) a safety standard change under Section 7.5 above (each referred to as a "Class Failure"), HP will have the following additional remedies for a [*] period commencing upon shipment by Supplier to HP of the OEM Product or the corresponding HP Product:

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- (1) In the event of a Class Failure, Supplier will use its commercially reasonable efforts to provide an initial root cause analysis, failure analysis, and [*] plan to HP no later than [*] following the receipt of the Class Failure part. HP will make available such information and assistance as reasonably required to allow Supplier to conduct its root cause analysis and provide its corrective action plan.
- (2) If, after review of the root cause analysis and [*] plan, HP determines in its reasonable opinion that the Class Failure necessitates a field stocking recall or customer based recall or retrofit, then HP will notify Supplier of its determination for such remedy. Supplier shall have [*] from time of notice from HP to object to HP's determination. In the event that Supplier either agrees with or fails to notify HP of its objection, HP may then elect to have the OEM products: (i) returned to Supplier for repair or replacement; (ii) repaired or replaced by Supplier in the field; or (iii) repaired or replaced by HP in the field, including products in distributor inventory and HP's installed base. If HP chooses to perform a field repair, Supplier will provide the appropriate replacement OEM products, spares, or upgrades [*] to HP and will, within [*] after completion of the recalls or retrofits, reimburse HP for [*] in performing such field repair. Supplier will give such OEM products, spares, or upgrades the [*].
- (3) Except as provided in Section 7.5 above regarding safety standard changes, Supplier will, within [*] after completion of the recalls or retrofits, reimburse HP [*] in performing such services.

10.7 Survival Of Support Obligations. Supplier's maintenance and support obligations specified in this Article 10, and in the Support Terms in Exhibit D will run for the Term and any additional periods under Section 1.3 above and will continue for a period of [*] after the date of Supplier's last shipment of the applicable OEM Product to HP, or [*], whichever occurs first. This obligation includes, without limitation, making necessary Parts available to HP as further provided in the Support Terms.

11. OBSOLESCENCE AND MANUFACTURING RIGHTS

11.1 Lifetime Buy Rights. Supplier acknowledges its obligation to manufacture, supply and support the OEM Products without interruption for the Term. If, however, after the [*] of shipment of such products, Supplier seeks to discontinue the supply or support of any OEM Product (a " Discontinued Product"), Supplier will give notice to HP no less than [*] in advance of the last date the Discontinued Product can be ordered. After receipt of notice of discontinuance, HP may place orders for any demand during the [*] of such notice for delivery of Discontinued Products prior to the end of the notice period. To the extent that such orders exceed HP's previous Forecast for such Discontinued Products, the orders shall be [*]. Supplier shall accept only forecasted orders in the [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

of the stated notice period, and such orders shall be [*]. In addition, during such notice period, Supplier shall have the right [*] to [*] for OEM Products from HP at the time such Orders are submitted.

11.2 Consulting Services. In support of Technical Information conveyed to HP, Supplier will provide:

- (1) Up to [*] of consulting services, as required by HP, provided that HP bears the cost of [*]; and
- (2) Additional consulting services at the rate of [*] of those so engaged.

12. TRAINING

12.1 Technical Training. Supplier will provide to HP, no later than April 1, 2000 as provided in a schedule mutually agreed upon in writing by the parties, Brocade [*] training for a minimum of [*] HP technical personnel, such training to be made available and completed before the scheduled HP ship-date of the OEM Product. Such training will be provided to HP for a mutually agreed upon [*] for the Term of the Agreement and Supplier's support obligations. HP may further request and Supplier will provide, for up to [*] HP technical personnel, additional training [*] as reasonably necessary to inform HP personnel of upgraded, enhanced or new versions of the OEM Products. Other training will be provided upon mutually agreeable terms and conditions.

12.2 Presales Training. Supplier will provide to HP presales training sufficient to allow HP to become fully familiar with the OEM Product and its market. Such training will be provided to HP for a mutually agreed [*]. HP may further request and Supplier will provide additional training as [*] to inform HP personnel of upgraded, enhanced, or new versions of the OEM Products.

12.3 HP's Rights in Training Classes and Materials. HP may [*] solely to internal trainees in training courses offered by HP solely in conjunction with HP or HP's authorized resellers' sale, service, and support of the OEM Products, all presales training classes, methods, and materials supplied or developed by Supplier under the Agreement. HP shall have [*] for the use of or [*] this material. HP may [*] such materials provided written authorization from Supplier is granted prior to distribution or use. Such approval from Supplier shall not be unreasonably withheld.

13. MARKETING AND LICENSING

13.1 Marketing and Distribution. HP will have the authority to market the OEM Products and the HP Products containing the OEM Products to the extent it deems appropriate,

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]. Without limiting the generality of the foregoing sentence, nothing in this Agreement will be construed or interpreted to place a [*] obligation upon HP with respect to marketing or distributing the HP Products or OEM Products or preclude HP from [*] any product which performs the same or similar function as the OEM Products. HP will have the right to use its own business and license terms for all marketing and distribution of the OEM Products and HP Products.

- 13.2 Distribution Rights. For [*] from the Effective Date, Supplier hereby agrees [*] the OEM Products [*], provided that nothing in this Section 13.2 shall be construed to [*] Supplier from [*] Supplier's current and future indirect channels of distribution that are (i) resellers, service bureaus, third party distributors and third party OEMs which in turn sell or distribute the OEM Products [*], and (ii) any [*] to whom Supplier has [*] any of its products [*] the Effective Date and (iii) not controlled by or under common control with Supplier or its permitted successive assignees or transferees, or (iv) formed in connection with a merger, reorganization, transfer, sale of assets or product lines, or change of control or ownership of Supplier or its permitted successive assignees or transferees. For purposes of this Section 13.2, an "[*].
- 13.3 No Rights In Marks. Except as otherwise specified in the private labeling section below, nothing in this Agreement should be construed to grant either party any rights in the Marks of the other party. Supplier [*], that HP [*] the [*] and the [*] OEM Products in [*] the OEM Products or the HP Products. The OEM Products will be affixed with copyright notices sufficient to give notice as to the rights of the parties in their respective products.
- 13.4 Private Labeling. If HP elects during the Term to create HP private label versions of the OEM Products, it is the intent of the parties that the terms and conditions of this Agreement will govern such private label version of the OEM Product. Notwithstanding the above, the parties recognize the necessity of renegotiating and amending the following sections of the Agreement: Article 3, Article 4, Article 7, Section 10.5, Exhibit A, Exhibit C, Exhibit D(6), and Exhibit H. The parties agree that such renegotiation of the preceding sections shall be in good faith and shall not be unreasonably delayed.
- 13.5 HP [*]. Supplier will ensure that the OEM Products [*] serial number, format, and packaging [*] HP and [*] to the HP [*] as set forth in Exhibit A (which will not require any material change in form or dimensions of the OEM Products or require commercially unreasonable actions). Except as provided herein, Supplier will have [*].

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

13.6 Software License.

(a) Supplier hereby grants to HP a nonexclusive, worldwide, revocable (except as expressly provided in Section 13.6(d), [*] right and license, under all copyrights, patents, patent applications, trade secrets and other necessary Intellectual Property Rights of Supplier, to: (i) use, execute, and display the Software, in object code form, in conjunction with, or for use with OEM Products; (ii) distribute or license the Software, in object code form, as part of, in conjunction with, or for use with OEM Products sold or leased by HP to end user customers; and, (iii) authorize, license and sublicense third parties to do any, some or all of the foregoing. HP shall distribute the Software to end user customers pursuant to HP's end user license agreement, attached hereto as Exhibit I, as updated by HP from time to time.

(b) HP shall have no right to (i) modify or adapt the Software for other products or create derivative works of the Software, (ii) decompile, reverse engineer, or disassemble the Software for purposes of designing similar products, or (iii) use or distribute the Software other than in connection with the use or distribution of the OEM Products.

(c) HP agrees that the foregoing licenses do not grant any title or other right of ownership to the Software and that Supplier owns and shall continue to own all right, title and interest in and to the Software.

(d) Upon any termination or expiration of this Agreement, HP's rights set forth in this Section 13.6 shall terminate except as follows: (i) end user customers shall be permitted continued use of the Software in conjunction with the operation of the OEM Products so long as they are not in breach of HP's end user license agreement attached hereto as Exhibit J, and (ii) HP shall retain a nonexclusive, worldwide license to use and execute the then-current version of the Software internally (in object code form only) for the sole purpose of assisting end user customers with the maintenance of the OEM Products purchased from HP.

13.7 Documentation License. Supplier hereby grants HP a nonexclusive, nontransferable, worldwide, [*] license to [*] in HP's [*] all Documentation, and other information other than confidential information furnished by Supplier under this Agreement. HP may [*] such Documentation [*] of source, subject to affixing copyright notices to all copies of Documentation. These rights with respect to the Documentation will extend to HP Subsidiaries and third party channels of distribution. Supplier shall have [*] for [*] into the [*] due to [*].

14. INTELLECTUAL PROPERTY PROTECTION

14.1 Supplier's [*]. Except as provided in Section 14.4 below and provided that HP has complied with the provisions of Section 14.2 below, Supplier will [*] from any

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*], any combination of an OEM Product with an HP Product (to the [*] any Software, Documentation, or a Supplier Mark, or any product provided as part of Supplier's Support services constitutes an unauthorized use or infringement of any patent (domestic or foreign) or a copyright, trademark, or trade secret of any third party. Supplier will [*] with respect to any such [*].

14.2 HP's Duty To Notify. HP will give Supplier prompt notice of any [*] will give Supplier the [*]. If Supplier does not [*] of the [*] nor provide HP with [*] that it will [*], then HP may, without in any way [*].

14.3 Remedies For Infringing Products. If the use or combination of any product provided hereunder is enjoined (the "Infringing Product"), Supplier will, [*], either:

[*]

[*]

(3) [*]

14.4 Limitations. Supplier will be relieved of its [*] under this Article 14 to the extent that the [*] from Supplier's [*] with an HP [*] provided that all implementations of that [*] constitute an [*] of a third party [*].

15. COUNTRY OF MANUFACTURE AND [*]

15.1 Country Of Origin Certification. Upon HP's request, Supplier will provide HP with an appropriate certification stating the country of origin for OEM Products, sufficient to satisfy the requirements of the customs authorities of the country of receipt and any applicable export licensing regulations, including those of the United States.

15.2 Country Of Origin Marking. Supplier will mark each OEM Product, or the container if there is no room on the OEM Product, with the country of origin. Supplier will, in marking OEM Products, comply with the requirements of the customs authorities of the country of receipt.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

15.3 [*]. If OEM Products delivered under this Agreement are imported, Supplier will when possible allow HP to be the [*]. If HP is not the [*] and Supplier obtains [*] rights to OEM Products, Supplier will, upon HP's request, provide HP with documents required by the [*] of the [*] of receipt to prove [*] and to transfer [*] rights to HP.

16. GOVERNMENTAL COMPLIANCE

16.1 Duty to Comply. The parties shall in the performance of this Agreement comply with all applicable laws, executive orders, regulations, ordinances, rules, proclamations, demands, and requisitions of all applicable state, local, national, or other governmental authority which may now or hereafter govern performance hereunder including, without limitation, all laws, executive orders, regulations, ordinances, rules, and proclamations regarding Equal Employment Opportunity, the exporting of technology, and withholding for income taxes.

16.2 Procurement Regulations. The Software is "commercial computer software" as defined in the applicable provisions of the Federal Acquisition Regulation (the "FAR") and supplements thereto, including the Department of Defense ("DoD") FAR Supplements (the "DFARS"). The parties acknowledge that the Software was developed entirely at private expense and that no part of the Software was first produced in the performance of a Government contract. If HP supplies the Software to a U.S. Government agency, in accordance with FAR 12.212 and its successors or DFARS 227.7202 and its successors, as applicable, HP shall license the Software to the Government subject to the terms of this Agreement.

16.3 Ozone Depleting Substances. Supplier hereby certifies that no OEM Product nor any component of any OEM Product:

- (1) Contains any "Class 1 Substance" or "Class 2 Substance", as those terms are defined in 42 USC Section 7671 and implementing regulations of the United States Environmental Protection Agency at 40 CFR Part 82, as now in existence or hereafter amended; or,
- (2) Has been manufactured with a process that uses any Class 1 or Class 2 Substance within the meaning of 42 USC Section 7671 and implementing regulations of the United States Environmental Protection Agency at 40 CFR Part 82, as now in existence or hereafter amended.

17. FORCE MAJEURE EVENTS

17.1 Delaying Causes. Subject to the provisions of this Article 17, Supplier will not be liable for any delay in performance under this Agreement caused by any "act of God" or other cause beyond Supplier's control and without Supplier's fault or negligence (a "delaying cause"). Notwithstanding the above, Supplier will not be relieved of any liability for any delay or failure to perform its defense obligations with respect to

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

third party Intellectual Property Rights or furnish remedies for Infringing Products as described in Article 14 above.

17.2 HP Option. Supplier will [*] give HP notice of any [*] and its [*] of the expected duration of such cause. In the event of a [*] which continues for a period of [*] HP may act in [*] to:

[*]

[*]

17.3 [*] Of Agreement. if HP elects to purchase other similar products in the event of a [*] HP may [*] under this Agreement once the [*] ceases and extend the [*] up to the length of time the [*]. Unless HP gives [*] as provided above within [*] after notice from supplier of the [*], HP will be deemed to have elected to [*] this Agreement for the duration of the [*].

18. EVENTS OF DEFAULT

18.1 Notice Of Breach. If either party is in breach of any provision of this Agreement, the nonbreaching party may, by written notice to the breaching party, except as otherwise prohibited by the United States bankruptcy laws, terminate the whole or any part of this Agreement or any Order, unless the breaching party cures the breach within [*] after receipt of such written notice.

18.2 Causes Of Breach. For purposes of Section 18.1 above, the term "breach" includes without limitation any:

- (1) Proceeding, whether voluntary or involuntary, in bankruptcy or insolvency by or against a party;
- (2) Appointment, with or without a party's consent, of a receiver or an assignee for the benefit of creditors;
- (3) Failure by Supplier to make a delivery of OEM Products in accordance with the requirements of this Agreement or any Order;
- (4) Failure by Supplier to replace or repair Noncomplying Products in a timely manner as required by Article 5 above; or
- (5) Other failure by a party to comply with any material provision of this Agreement with additional failure to provide the nonbreaching party, upon written request, with reasonable assurances of future performance.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 18.3 [*] Rights Upon Breach. In the event HP terminates this Agreement in whole or in part as provided above, [*] provided HP under this Agreement, HP may [*], upon [*] and in such [*] as [*] deems [*] to the [*] as to which this Agreement is terminated. Supplier agrees to [*] the [*] of this Agreement to the [*] under the provisions of this Section.
- 18.4 [*]. If any Eligible Purchaser having the right to purchase an OEM Product under this Agreement or under any other agreement with Supplier [*] that an OEM Product is [*], then, irrespective of any other rights provided HP hereunder, HP may implement a [*] to [*] of such OEM Products [*]. Such [*] may be [*] if HP [*] that Supplier has taken [*] the [*] or given sufficient assurances that such [*] will be [*] within a [*].
- 18.5 Escalated Resolution Process. In the event of any dispute arising from or regarding the subject matter of this Agreement, the parties agree to negotiate in good faith an equitable resolution of the disputed matter. If the parties are not able to resolve the dispute within [*] of first written communication of the dispute, then the parties agree to [*] process [*] as designated in Exhibit G. The [*] shall meet within [*] of escalation to resolve the disputed matter. If the dispute is not resolved within an additional [*] period from the end of [*] period set forth above, then either HP or Supplier may commence legal, equitable, or other action upon providing the other party not less than [*] prior written notice of such intent.

19. CONFIDENTIAL INFORMATION

- 19.1 Confidential Information. During the Term, a party (the "Recipient") may receive or have access to certain information of the other party (the "Discloser") that is marked as "Confidential Information," including, though not limited to, information or data concerning the Discloser's products or product plans, business operations, strategies, customers and related business information. The Recipient will protect the confidentiality of Confidential Information with the same degree of care as the Recipient uses for its own similar information, but no less than a reasonable degree of care, under the terms of the Confidential Disclosure Agreement attached as Exhibit F (the "CDA"). To the extent any term of this Agreement conflicts with any term in the CDA, the terms of this Agreement will control and take precedence. Confidential Information may only be used by those employees of the Recipient who have a need to know such information for the purposes related to this Agreement. The parties acknowledge that all Technical Information and Forecasts are deemed Confidential Information to be protected for a term of [*] from the date of disclosure.
- 19.2 Exclusions. The foregoing confidentiality obligations will not apply to any information that is (a) already known by the Recipient prior to disclosure,

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

(b) independently developed by the Recipient prior to or independent of the disclosure, (c) publicly available through no fault of the Recipient, (d) rightfully received from a third party with no duty of confidentiality, (e) disclosed by the Recipient with the Discloser's prior written approval, or (f) disclosed under operation of law. In the event that a party becomes aware that disclosure is likely to be required by operation of law, the party having knowledge of such possible disclosure will provide the other with ample notice and opportunity to seek a protective order.

20. INSURANCE REQUIREMENTS

- 20.1 Insurance Coverage. Supplier will maintain Comprehensive or Commercial General Liability Insurance (including but not limited to products and completed operations, broad form contractual liability, broad form property damage and personal injury liability) with a minimum limit of [*] combined single limit per occurrence and [*] in the aggregate, for claims of bodily injury, including death, and property damage that may arise from use of the OEM Products or acts or omissions of Supplier under this Agreement. Each policy obtained by Supplier will name [*] in performing [*] herein) as additional insureds. Such insurance will apply as [*] and no other insurance will be called upon to contribute to a [*] thereunder. In addition, such policies will permit Supplier to waive, on its own behalf and on behalf of its insurers, any rights of subrogation against HP. Such insurance policies will be written with appropriately licensed and financially responsible insurer, and Supplier will provide for a minimum of [*] written notice to HP of any cancellation or reduction in coverage. Certificates of insurance evidencing the required coverage and limits will be furnished to HP before any work is commenced hereunder, and Supplier will deliver copies of policies or certificates to the HP contact listed in Exhibit G.
- 20.2 Claims Made Coverage. If any applicable Comprehensive or General Liability policies have "claims made" coverage, Supplier will maintain such coverage with [*] as an [*] for a minimum of three years after termination of this Agreement. Any such coverage must have a retroactive date no later than the date upon which work commenced under this Agreement.
- 20.3 Additional Requirements. All deductibles on policies providing coverage will be paid by Supplier. In the event Supplier is self insured for matters described in Section 20.1, Supplier agrees to respond to any claims or losses made against or incurred [*] had been purchased with the [*] than what is generally available to similar suppliers. In no event will the coverages or limits of any insurance required under this Article, or the lack or unavailability of any other insurance, be deemed to [*] Supplier's [*] to HP under this Agreement.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

21. LIMITATION OF LIABILITY

UNLESS OTHERWISE STATED HEREIN, EXCEPT AS TO BREACHES IN SECTION 19 ABOVE, NEITHER PARTY WILL BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS) OF THE OTHER ARISING OUT OF ANY PERFORMANCE OF THIS AGREEMENT OR IN FURTHERANCE OF THE PROVISIONS OR OBJECTIVES OF THIS AGREEMENT, REGARDLESS OF WHETHER SUCH DAMAGES ARE BASED ON TORT, WARRANTY, CONTRACT OR ANY OTHER LEGAL THEORY, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE ABOVE, SUPPLIER WILL BE RESPONSIBLE FOR ANY DAMAGES OF ANY KIND INCLUDED IN AN AWARD OR SETTLEMENT OF A THIRD PARTY CLAIM UNDER ARTICLE 14 ABOVE.

EXCEPT WITH RESPECT TO OBLIGATIONS ARISING UNDER ARTICLES 9, 14, AND 19 HEREIN, IN NO EVENT SHALL EITHER PARTY'S TOTAL LIABILITY UNDER THIS AGREEMENT EXCEED THE GREATER OF (I) [*], OR (II) AN AMOUNT EQUAL TO THE [*] BY SUPPLIER FROM HP DURING THE [*] IMMEDIATELY PRECEDING THE EVENTS GIVING RISE TO THE IMPOSITION OF LIABILITY.

22. TERMINATION

22.1 Outstanding Orders. All accepted Orders issued prior to the expiration of this Agreement must be fulfilled pursuant to and subject to the terms of this Agreement, even if the Shipment Dates are after expiration. Upon termination of this Agreement for Supplier's breach, HP may cancel any outstanding Order or require Orders to be fulfilled even if a Shipment Date is after the date of termination.

22.2 Return Of HP Property. Supplier must return all HP Property to HP upon expiration or termination. All such property must be in good condition, normal wear and tear excepted. HP will determine the [*] for [*] HP will [*] Otherwise, Supplier will [*].

22.3 Surviving Provisions. Notwithstanding the expiration or early termination of this Agreement, the provisions regarding Warranties in Article 9, Support in Article 10, Marketing and Licensing in Article 13, Intellectual Property in Article 14, Confidentiality in Article 19, Insurance Requirements in Article 20. Limitation of Liability in Article 21, and the Miscellaneous provisions below will each survive in accordance with their terms.

23. MISCELLANEOUS

23.1 Notices. All notices to be given under this Agreement must be in writing addressed to the receiving party's designated recipient specified in Exhibit G. Notices are validly given upon the earlier of confirmed receipt by the receiving party or three

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

days after dispatch by courier or certified mail, postage prepaid, properly addressed to the receiving party. Notices may also be delivered by telefax and will be validly given upon oral or written confirmation of receipt. Either party may change its address for purposes of notice by giving notice to the other party in accordance with these provisions.

- 23.2 Exhibits. Each Exhibit attached to this Agreement is deemed a part of this Agreement and incorporated herein wherever reference to it is made.
- 23.3 Independent Contractors. The relationship of the parties established under this Agreement is that of independent contractors and neither party is a partner, employee, agent or joint-venturer of or with the other. Nothing in this Agreement precludes either party from independently developing, manufacturing, selling or supporting products similar to the OEM Products.
- 23.4 Assignment. Neither party may, directly or indirectly, in whole or in part, either by operation of law or otherwise, assign or transfer this Agreement or delegate any of its obligations under this Agreement without the other party's written consent. Any attempted assignment, transfer, or delegation without such prior written consent will be void. Notwithstanding the foregoing, HP or its permitted successive assignees or transferees may assign or transfer this Agreement or delegate any rights or obligations hereunder without consent: (1) to any entity controlled by, or under common control with, HP, or its permitted successive assignees or transferees; or (2) in connection with a merger, reorganization, transfer, sale of assets or product lines, or change of control or ownership of HP, or its permitted successive assignees or transferees. Without limiting the foregoing, this agreement will be binding upon and inure to the benefit of the parties and their permitted successors and assigns.
- 23.5 No Waiver. The waiver of any term, condition, or provision of this Agreement must be in writing and signed by an authorized representative of the waiving party. Any such waiver will not be construed as a waiver of any other term, condition, or provision except as provided in writing, nor as a waiver of any subsequent breach of the same term, condition, or provision.
- 23.6 Reference To Days. All references in this Agreement to "days" will, unless otherwise specified herein, mean calendar days.
- 23.7 Headings. The Section headings used in this Agreement are for convenience of reference only. They will not limit or extend the meaning of any provision of this Agreement, and will not be relevant in interpreting any provision of this Agreement.
- 23.8 Publicity. Subject to the terms and conditions of Article 19 above, neither party may publicize or disclose to any third party, without the written consent of the other party, the terms of this Agreement. Without limiting the generality of the foregoing sentence, no press releases may be made without the mutual written consent of each party.

- 23.9 Severability. If any provision in this Agreement is held invalid or unenforceable by a body of competent jurisdiction, such provision will be construed, limited or, if necessary, severed to the extent necessary to eliminate such invalidity or unenforceability. The parties agree to negotiate in good faith a valid, enforceable substitute provision that most nearly effects the parties' original intent in entering into this Agreement or to provide an equitable adjustment in the event no such provision can be added. The other provisions of this Agreement will remain in full force and effect.
- 23.10 Subcontractors and Subsidiaries. Each party unconditionally guarantees to the other party the performance of all obligations by any of its Subcontractors and Subsidiaries under the Agreement (including, without limitation, payment obligations), as amended from time to time, or any other obligation of any Subcontractors or Subsidiary to the other party, now existing or hereafter arising. If either party's Subcontractors or Subsidiary does not perform such obligation, such party shall immediately perform such obligation.
- 23.11 Entire Agreement. This Agreement comprises the entire understanding between the parties with respect to its subject matters and supersedes any previous or contemporaneous communications, representations, or agreements, whether oral or written. For purposes of construction, this Agreement will be deemed to have been drafted by both parties. No modification of this Agreement will be binding on either party unless in writing and signed by an authorized representative of each party.
- 23.12 Governing Law. This Agreement shall be governed and interpreted according to the laws of the State of California, exclusive of its choice-of-law provisions, and the parties hereby personally consent to the exclusive jurisdiction of the courts of the State of California or the United States District Court for the District of Northern California.
- 23.13 Exhibits. Each of the following Exhibits referred to in this Agreement is incorporated in full in this Agreement wherever reference to it is made:
- EXHIBIT (A) OEM PRODUCTS AND SPECIFICATIONS
 - EXHIBIT (B) ELIGIBLE PURCHASERS
 - EXHIBIT (C) PRICING AND FEES
 - EXHIBIT (D) MAINTENANCE AND SUPPORT
 - EXHIBIT (E) HP EQUIPMENT LOAN AGREEMENT
 - EXHIBIT (F) CONFIDENTIAL DISCLOSURE AGREEMENT
 - EXHIBIT (G) RECIPIENTS FOR RECEIPT OF NOTICES

EXHIBIT (H) HP SUPPLIER QUALITY SYSTEM REQUIREMENTS
EXHIBIT (I) HP END USER SOFTWARE LICENSE AGREEMENT

AGREED:

BROCADE COMMUNICATIONS
SYSTEMS, INC.

HEWLETT-PACKARD COMPANY

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

BROCADE/HP CONFIDENTIAL

EXHIBIT (A)

OEM PRODUCTS AND SPECIFICATIONS

- A-1 SILKWORM 2400-2800 PRODUCT SPECIFICATION
- A-2 CUSTOMER SPECIAL DEFINITION (CSD) PROCEDURE
- A-3 FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION SPECIFICATIONS DOCUMENT

BROCADE/HP CONFIDENTIAL

EXHIBIT (A-1)

SILKWORM 2400-2800 PRODUCT SPECIFICATION

This page is left intentionally blank; Exhibit (A-1) follows immediately after this page.

EXHIBIT (A-1)

Page 1 of 1

SILKWORM(R) 2400 AND 2800

FIBRE CHANNEL FABRIC SWITCHES

[GRAPHIC IMAGE APPEARS HERE]

BROCADE fabric switches create the core infrastructure for constructing a Storage or Server Area Network (SAN). The switches provide full fabric support, true line-speed switching, and modular components to build a wide range of SAN solutions.

The SilkWorm 2400 and SilkWorm 2800 create an intelligent connectivity infrastructure, or Fabric, to support connectivity of a wide range of host and storage types. Users share these resources efficiently in a SAN. Fabric services are deployed automatically and transparently throughout the Fabric to assure it is resilient to failures. The Fabric is scalable, expanding rapidly to increasing demands by users for highly available, heterogeneous access to growing storage pools.

SilkWorm switches provide the cornerstone for a wide range of SAN configurations--from NT-based workgroups to large enterprise solutions. Fabric switches have the capability to cascade, further increasing a Fabric's scalability and resiliency. A multiple-switch Fabric can connect thousands of Fibre Channel ports. SilkWorm switches meet the needs of a broad range of SAN applications, including storage consolidation, enterprise backup, and clustering environments.

Best-of-class products conforming to industry standards

- - Each port (B for the SilkWorm 2400 and 16 for the SilkWorm 2800) delivers 100 megabytes-per-second (MB/sec) line-speed. Universal ports automatically determine the port type for a loop, point-to-point devices, or an Inter-Switch Link (ISL).
 - - Non-blocking architecture guarantees full-speed data delivery irrespective of traffic conditions. Cut-through routing guarantees maximum latency of 2 microseconds across a switch.
 - - Buffer-pool management and use of mini-buffers for small frames optimize overall performance.
 - - GBIC (Gigabit Interface Converter) -based modular design makes it easy to hot-swap connections quickly. Copper and short-or long-wave-length fiber cabling may be mixed on the same switch in any combination.
 - - Self-learning allows the Fabric to automatically discover and register host and storage devices.
- BROCADE's translative mode automatically registers private-loop devices for Fabric-wide access.
- [GRAPHIC IMAGE APPEARS HERE]
- - Self-healing enables the Fabric to isolate a problem port and reroute traffic onto alternate paths.
 - - Optional hardware-enforced Zoning secures data access among switch ports.

MAXIMUM SCALABILITY TO PROTECT INVESTMENTS

- - Multiple simultaneous conversations are supported, achieving higher bandwidth than possible on a hub-based Fibre Channel loop.
- - A SAN expands seamlessly to include thousands of ports by adding new switches to the Fabric. ISLs are automatically detected. Fabric information is updated to newly updated switches.

FABRIC OS(TM) TO SAFEGUARD MISSION-CRITICAL BUSINESS

- - Simple Name Server registers information about the host and storage devices in the SAN. Registered State Change Notification (RSCN) informs the SAN when a device state changes.
- - Alias Server supports the Multicast Service, which broadcasts data to all members of a group.
- - BROCADE ZONING (optional) limits access to data by selected ports or devices.
- - Services are distributed and managed across the entire Fabric, ensuring simple management with no single point of failure.
- - Routing software automatically configures the network, detects link failure, and reconfigures without operator interaction.

- - Software is upgradable for additional features and enhancements by downloading the latest version of Fabric OS.

INDUSTRY-LEADING RELIABILITY AND SERVICEABILITY

- - Front control panel on the SilkWorm 2800 simplifies administration.
- - Power-On Self Test (POST) and online diagnostics allow monitoring and thorough port-level testing while the switch is running Extensive offline diagnostics assist in rapidly isolating a Field Replacable Unit (FRU).
- - Embedded port-monitoring facilities automatically disable failing ports and restart them when the problem has cleared.
- - Redundant cooling fans and an optional, redundant, hot swappable power supply increase switch availability.
- - Low parts count increases switch reliability.

SIMPLE MANAGEABILITY

- - Support for industry-standard MIBs (Management Information Blocks) gives standardized SNMP (Simple Network Management Protocol) access to switch information
- - Broad set of interfaces (Telnet, SNMP, Web, or SES) provide flexible integration into the enterprise management infrastructure.

ADVANCED SAN CONFIGURATION CONTROL AND MANAGEMENT (OPTIONAL)

- - BROCADE WEB TOOLS for online SAN management and switch administration.
- - BROCADE SES (SCSI-3 Enclosure Services) for management without implementing IP.
- - BROCADE ZONING for finer segmentation of the Fabric to increase security and configuration possibilities.
- - QuickLoop(TM) for configuration of one or more logical loops in the Fabric, and enhanced connectivity and management of private devices.

SILKWORM 2400 AND 2800 SWITCH SPECIFICATIONS

SYSTEM ARCHITECTURE

Fibre Channel Standards	FC-AL Rev 4.5 FC-AL-2 Rev 7.0 (Draft) FC-FLA Rev 2.7 FC-GS-2 Rev 5.3 (Draft) FC-FG Rev 3.5 FC-PH Rev 4.3 FC-PH-2 Rev 7.4 FC-PH-3 Rev 9.4 FC-PLDA Rev 2.1 FC-SW Rev 3.3 FC-VI Rev 1.0 (Draft)
Fibre Channel ports	2400: 8 universal ports: 2800:16 universal ports
Scalability	Architecture: 239 switches maximum
Certified maximum	32 switches, 7 hops. Larger Fabrics to be certified as required.
Interoperability	SilkWorm II, SilkWorm Express, or any SilkWorm 2000 Family Switch
Performance	Full line-speed switching, 200 MB/sec per port, full-duplex
Switch bandwidth	2400: 8 Gb/sec end-to-end; 2800: 16 Gb/sec
Switch core	Non-blocking
Fabric latency	<2 [Greek mu]sec with no contention, cut-through routing
Maximum frame size	2112-byte payload
Frame buffers	2400: 224 dynamically allocated; 2800: 448, dynamically allocated
Classes of Service	Class 2, Class 3, Class F (Interswitch Frames)
Port Types	F_Port, FL_Port, and E_Port. Self-discovery based on connection type
Data traffic types	Unicast, multicast (256

Media Types

groups), and broadcast

Hot-pluggable,
industry-standard GBICs

Short-wave laser, up to 500
m (1.640 ft)

Long-wave laser, up to 10
km (6.2 mi)

Passive copper, up to 13 m
(43 ft)

Fabric Services

Simple Name Server, Registered
State Change Notification (RSCN),
Alias Server (Multicast), BROCADE
ZONING (optional), and
QuickLoop(TM) (optional)

[GRAPHIC IMAGE APPEARS HERE]

Options

Redundant power supply, GBICs, and
rack mount kit

MANAGEMENT

Management

SNMP, Telnet, BROCADE SES
(optional), and BROCADE WEB TOOLS
(optional)

Management access

Ethernet [R]-45,10/100BaseTX
(UTP)]. in-line over Fibre
Channel link, and front control
panel (2800)

Diagnostics

POST and embedded online/offline
diagnostics

MECHANICAL SPECIFICATIONS

Enclosure

Back-to-front airflow, power out
the front 2800: 20, 19-in-EIA
compliant

2400: 1u, 19-in.-EIA compliant

D: 45.0 cm (17.72 in.)

D: 45.0 cm (17.72 in.)

Weight

Single power supply

2400: 6.36 kg (14 lbs):
2800: 11.59 kg (25.6 lbs)

Dual power supply

2400: 7.73 kg (17 lbs):
2800: 12.94 kg (28.5 lbs)

ENVIRONMENT

Temperature

Operating 10(Degree)C-40(Degree)C
(50(Degree)F-104(Degree)F),

Nonoperating: -35(Degree)C
-65(Degree)C (-31(Degree)F
-147(Degree)F)

Humidity

Operating: 5% - B5% noncondensing
@ 40(Degree)C (104(Degree)F)

Altitude

Up to 3.000 m (9.800 ft)

Shock

5 g, 11 ms, half sine

Vibration

Operating: 5, 5-500-5Hz@1.0
octave/min

Nonoperating: 10, 5-500-5Hz@1.0
octave/min

POWER

SUPPORTED POWER RANGE B5 - 265 VAC. 47 - 63 Hz

REGULATORY COMPLIANCE

Country	Safety	EMC
Canada	CSA 950 3rd Ed	ICES-003 Class A
United States	UL 1950 3rd Ed	FCC Part 15 Class A
Japan	EN60950 A4	VCCI Class A

European community

EN60950 A4

EN55022 Level A

EN55082-2 (Immunity)

Australia/New Zealand

AS/NZS 3548

See the BROCADE web site for related hardware and software data sheet

EXHIBIT (A-2)

CUSTOMER SPECIAL DEFINITION (CSD) PROCEDURE

This page is left intentionally blank; Exhibit (A-2) follows immediately after this page.

BROCADE
CUSTOMER SPECIAL DEFINITION (CSD)
PROCEDURE

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE

CUSTOMER SPECIAL DEFINITION (CSD)
PROCEDURE

SECTION IV CUSTOMER AUTHORIZATION

Your signature authorizes Brocade Communications Systems, Inc., to build the special switch configuration according to your written product and purchase specifications reviewed and accepted by Brocade Communications Systems, Inc. Should changes be required to the special configuration referenced on this form, customer shall provide written changes to Brocade.

/s/ Marilyn Edling

Customer Signature

Date

/s/ Charles Smith

Sales Account Manager

2/16/00

Date

BROCADE

CUSTOMER SPECIAL DEFINITION (CSD)
PROCEDURE

SCRIPT REQUIREMENTS/DEFAULT PARAMETERS TABLE (TO BE FORMATTED PER CUSTOMER
SPECIFIC RQMTS)

[*]	[*]	[*]	[*]
[*]			

ADDITIONAL FUNCTIONALITY DESCRIPTION:

- - [*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH
THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE
OMITTED PORTIONS.

BROCADE

CUSTOMER SPECIAL DEFINITION (CSD)
PROCEDURE

CUSTOMER CONFIGURATIONS (To include main switch configurables as appropriate for products covered; format may be modified to fit specific customer requirements)

CUSTOMER PART #	BROCADE PART #	# POWER SUPPLIES	[*]	[*]	[*]	COMMENTS
[*]	[*]	[*]	[*]	[*]	[*]	[*]

FRU CONFIGURATIONS: SILKWORM 2800 (Marketing to provide standard template for each product)

FRU ITEM	CUSTOMER PART #	BROCADE PART # (STANDARD FRU)	REQUIRED (YES/NO)	UNIQUE REQUIREMENTS?	BROCADE P/N (CUST. UNIQUE)
[*]	[*]	[*]	[*]	[*]	
[*]	[*]	[*]	[*]	[*]	
[*]	[*]	[*]	[*]	[*]	
[*]	[*]	[*]	[*]	[*]	
[*]			[*]		
[*]			[*]		
[*]					

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE

CUSTOMER SPECIAL DEFINITION (CSD)
PROCEDURE

UNIQUE LABEL REQUIREMENTS (To include all customer unique label requirements, placement, and specification source)

LABEL NAME	CUSTOMER SPEC #	BROCADE P/N	POSITIONING (ON SWITCH, PACKAGING, FRU COMPONENT, ETC)	COMMENTS
[*]				[*]
[*]				[*]
[*]				[*]
[*]				[*]
[*]				[*]
[*]				[*]
[*]				[*]

AGENCY CERTIFICATION REQUIREMENTS (Marketing to provide Standard Agency Certs for each product; unique customer requirements should be listed and highlighted)

COUNTRY	SAFETY	EMC
USA, Canada, Japan	Please see Brocade label & HP label in attached specification	Please see attached label specification

Terms and conditions in the Corporate Purchase Agreement will supersede this document.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (A-3)

FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION SPECIFICATIONS DOCUMENT

HEWLETT-PACKARD CO.

This page provides a running history of changes for a multi-page drawing. List all changes below, referencing page number and section number, if applicable. Be concise when describing changes. If extensive revisions have been made, a general statement that the document has been "revised and redrawn" is permissible.

LTR.	REVISIONS	DATE	INITIALS CM ENGINEER
A	First Draft	10/20/99	[*]
B	As Issued.	11/5/99	[*]
C	As Issued.	11/11/99	[*]
D	As Issued.	11/18/99	[*]
E	As Issued	11/23/99	[*]
F	As Issued	12/2/99	[*]
G	As Issued	12/14/99	[*]
H	As Issued	12/15/99	[*]
I	As Issued	12/21/99	[*]
J	As Issued	1/28/00	[*]

[GRAPHIC IMAGE APPEARS HERE]

This document is the property of Hewlett-Packard Company (HP) and contains confidential and proprietary information of HP. Neither it, nor the information contained herein shall be disclosed to others, or duplicated, or used by other except as authorized by HP writing.

ASSEMBLY #: N/A	HP P/N: N/A
DATE: JANUARY 28, 1999	DESCRIPTION: FIBRE CHANNEL GIGABIT SWITCH
[*]	CONFIGURATION SPECIFICATIONS DOCUMENT
[*]	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

FIBRE CHANNEL GIGABIT SWITCH
CONFIGURATION SPECIFICATIONS
DOCUMENT

[*]
Supplier: Brocade

DOCUMENT REVISION HISTORY

Revision #	Date	Description
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]

[*]	EXHIBIT (A-3) FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION SPECIFICATIONS DOCUMENT	[*]
[*]		[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

TABLE OF CONTENT	Page
1. SCOPE OF THE DOCUMENT.....	4
2. PART-NUMBER CROSS REFERENCE AND REVISION.....	4
2.1. HP-ESBU PURCHASED PARTS.....	4
2.2. HP-HSDSL PURCHASED PARTS.....	4
3. PART SHIPMENT CONFIGURATION.....	4
3.1. HP-ESBU PURCHASED PARTS.....	5
3.2. HP-HSDSL PURCHASED PARTS.....	5
4. LABELING.....	6
4.1. GENERAL.....	6
4.1.1. Label Material and Tests.....	6
4.1.2. Location.....	6
4.1.3. Regulatory Markings.....	6
4.2. SWITCH ENCLOSURE LABELING.....	7
4.2.1. HP Product/Regulatory Label.....	7
4.2.2. Manufacturing Identification Label.....	ERROR! BOOKMARK NOT DEFINED.
4.2.3. Dual Power Supply Caution Label.....	ERROR! BOOKMARK NOT DEFINED.
4.2.4. Packaging Label.....	11
4.3. HP-HSDSL PURCHASED PARTS LABELING.....	14
4.4. SERIAL NUMBER REQUIREMENTS.....	22
4.4.1. HP Serial Number.....	22
4.4.2. Other Serial Numbers.....	22
4.5. BAR CODE REQUIREMENTS.....	22
5. SPECIFICATIONS.....	22
5.1. FIRMWARE REVISION AND EPL INFO.....	22
5.2. HP COLOR AND TEXTURE INFORMATION.....	23

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

4. LABELING

4.1. GENERAL

4.1.1. LABEL MATERIAL AND TESTS

The label material and adhesive shall be suitable for use on the material it is to be applied (e.g. plastic or metal...). Also, the label must be "permanent" in that it will be destroyed or made unserviceable if removed (UL and CSA approved label systems meet this criteria).

- CSA label identification logo on each label or bulk labeled if there is no printing on the label
- UL Recognized label system (bulk marking for labels)

Rub label for 15 seconds with water and another 15 seconds with kerosene (or other petroleum spirits). All markings shall be legible. It shall not be easy to remove the label from the applied surface without damage to the label and the information shall be legible.

4.1.2. LOCATION

The label must be in an area visible to the operator. This is the front, sides or rear of the unit and on the bottom if the product is light. The label must also be on a permanent part (attached by screws is OK) of the unit and not on a part that is likely to be discarded.

4.1.3. REGULATORY MARKINGS

Proof of certification by any agency is the approval agencies symbol and number, typically on the product. Unless otherwise noted, the information must be legible with no minimum size. Also included are other markings required for agency approval.

Printed: 02/02/00

EXHIBIT (A-3)
FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
SPECIFICATIONS DOCUMENT

Page: 6 of 23

Drawing Number:
[*]

File Name:[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

4.2. SWITCH ENCLOSURE LABELING

4.2.1. BROCADE REGULATORY LABEL & HP PRODUCT LABEL

BROCADE REGULATORY LABEL

ITEM	HUMAN READABLE	BAR CODE
Product Description	"16 Port Fibre Channel Switch"	NA
Serial number	"Serial: DN00XXXXXX" (see section 4.4/below for requirements)	Yes See Below
Internal Manufacturing Part Number	"INTERNAL HP Mfg Part Number: A5624-62001"	Yes See Below
Regulatory Markings	<ul style="list-style-type: none"> -UL Listing logo plus file number, ITE and the work Listed (or other NRTL agency) -CSA label manufacturers code -TUV logo with GS mark(or other European mark) -CE mark -USA FCC Notice -Canadian Class A Notice -Japan VCCI-A Notice -"Made in" statement 	
Electrical Ratings Information	Voltage: 100-240V AC/DC: 47-63Hz Current: 1.5A	

LABEL PLACEMENT: The label must be placed on the bottom front of the switch chassis.

LABEL SIZE: 3.91" Wide X 2.71" High

LABEL MATERIAL TYPE: .002" heavy coat chrome mylar base stock with .002" permanent adhesive

Brocade Regulatory Label

[GRAPHIC IMAGE APPEARS HERE]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

HP PRODUCT LABEL (INCLUDES HP REGULATORY LABEL)

ITEM	HUMAN READABLE	BAR CODE (BARCODE=CODE 3 OF 9)
HP Logo	HP Logo	N/A
HP Model Number	"A5624A/AZ"	N/A
Product Description	"16 Port Fibre Channel Switch"	NA
Serial number	"Serial: DN00XXXXXX" (see section 4.4/below for requirements)	Yes See Below
Internal Manufacturing Part Number	"INTERNAL HP Mfg Part Number: A5624-62001"	Yes See Below
Regulatory Markings	Australian Ctic mark Class 1 Laser Product Taiwan EMI license number Taiwan BCIQ notice GOST label	Yes

LABEL PLACEMENT: The label must be placed on the top center of chassis, readable from front side

LABEL SIZE: 2.9" Wude X 2.9" High with .06" Radius Rounded Corners (Bay Area Labels Die #234-FR)

LABEL MATERIAL TYPE: .002" white heavy coat mylar base stock with .002" thick permanent acrylic adhesive.
Laminate: .001" transparent matte mylar.

COLOR: Background, White

GRAPHICS & TEXT: Black

BARCODE: Barcode shall be code 3 of 9

HP Product Label (includes HP regulatory label)

[GRAPHIC IMAGE APPEARS HERE]

NOTE: BROCADE WILL PLACE "S/N LABEL" AS SHOWN ABOVE
HP Product Label Placement (includes HP regulatory label)

Printed: 02/02/00 EXHIBIT (A-3) Page: 9 of 23
FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
SPECIFICATIONS DOCUMENT

Drawing Number: [*] File Name:[*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

4.2.2. PACKAGING LABEL

BROCADE SHIPPING LABEL
Label Content:

ITEM	HUMAN READABLE	BAR CODE (BARCODE=CODE 3 OF 9)
Product Description	"16 Port Fibre Channel Switch"	NA
Serial number	"Serial: DN00XXXXXX" (see section 4.4/below for requirements)	Yes See Below
Internal Manufacturing Part Number	"INTERNAL HP Mfg Part Number: A5624-62001"	Yes See Below
Regulatory Marking	CE. See below for CE Label/Regulatory Marking.	None.

LABEL PLACEMENT: Enclosure Packaging labels should go on the OUTSIDE of the container box. Two (1) labels should be printed and placed on the container box. The label should be placed in the UPPER RIGHT HAND CORNER on opposite sides of the switch packing box (SEE BELOW FOR PLACEMENT). This label should ALWAYS BE VISIBLE when viewing a corner.

LABEL SIZE: 3.5"-4" Wide X 4.8"-6" High. NOTE: "CE" label size is 2"W X 2"High +/- .5"

LABEL MATERIAL: Brady THT-25-402-1

RIBBON: Brady R6107 Thermal Transfer

Brocade Shipping Label

[GRAPHIC IMAGE APPEARS HERE]

Brocade Shipping Label Placement

Printed: 02/02/00 EXHIBIT (A-3) Page: 11 of 23
FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
SPECIFICATIONS DOCUMENT
Drawing Number: [*] File Name:[*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

Printed: 02/02/00 EXHIBIT (A-3) Page: 12 of 23
 FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
 SPECIFICATIONS DOCUMENT
Drawing Number: File Name:[*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

4.3. [*] FRU PURCHASED PARTS PACKAGING LABELING

The table below describes the appropriate labeling for the product itself and for the packaging label for the products packaging. Note: The standard Brocade serial number format is acceptable for the [*] supplied parts.

PART DESCRIPTION	SUPPLIER PART NUMBER (NEW PART)	INFORMATION REQUIRED ON PRODUCT LABEL		INFORMATION REQUIRED ON PACKAGING LABEL	
		HP P/N (NEW PART)	SERIAL NUMBER (HUMAN READABLE & BAR CODE)	HP P/N (NEW PART)	SERIAL NUMBER (HUMAN READABLE & BAR CODE)
SEE NOTES BELOW SEE NOTES BELOW SEE NOTES BELOW					
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]	[*]

Notes:

- - FOR "NEW" PARTS SHIPPED TO [*], THE PRODUCT LABEL AND PACKAGING LABEL MUST INCLUDE THE PART'S REPLACEMENT("NEW") PART NUMBER (SEE SECTION 2.2).
- - FOR "REPAIRED" PARTS SHIPPED TO HP-HSDSL, THE PRODUCT LABEL AND PACKAGING LABEL MUST INCLUDE THE PART'S EXCHANGE ("REPAIRED") PART NUMBER (SEE SECTION 2.2).
- - BARCODE = CODE 3 OF 9
- - "*" FRUS TO BE ORDERED FROM BROCADE

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

FRU SHIPPING LABEL & PLACEMENT

LABEL PLACEMENT: Enclosure Packaging labels should go on the OUTSIDE of the container box. One (1) label should be printed and placed on the container box. The label should be placed on the RIGHT SIDE OF THE BOX/UPPER RIGHT HAND CORNER (SEE BELOW FOR PLACEMENT).

This label should ALWAYS BE VISIBLE when viewing a corner.

LABEL SIZE: 3.5" -4" Wide X 4.8" -6" High

LABEL MATERIAL: Brady THT-25-402-1

RIBBON: Brady R6107 Thermal Transfer

FRU SHIPPING LABEL (NEW PART)

[GRAPHIC IMAGE APPEARS HERE]

Printed: 02/02/00

EXHIBIT (A-3)
FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
SPECIFICATIONS DOCUMENT

Page: 15 of 23

Drawing Number:
[*]

File Name:[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

FRU SHIPPING LABEL (REPAIRED PART)

[GRAPHIC IMAGE APPEARS HERE]

Printed: 02/02/00 EXHIBIT (A-3) Page: 16 of 23
 FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
 SPECIFICATIONS DOCUMENT
Drawing Number: File Name:[*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH
THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE
OMITTED PORTIONS.

FRU SHIPPING LABEL PLACEMENT (NEW PART)
FAN ASSEMBLY

[GRAPHIC IMAGE APPEARS HERE]

Printed: 02/02/00 EXHIBIT (A-3) Page: 17 of 23
 FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
 SPECIFICATIONS DOCUMENT
Drawing Number: File Name:[*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

FRU LABEL (NEW PART)

[GRAPHIC IMAGE APPEARS HERE]

FRU LABEL (REPAIRED PART)

[GRAPHIC IMAGE APPEARS HERE]

Printed: 02/02/00

EXHIBIT (A-3)
FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
SPECIFICATIONS DOCUMENT

Page: 18 of 23

Drawing Number:
[*]

File Name:[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH
THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE
OMITTED PORTIONS.

FRU PART NUMBER LABEL PLACEMENT(NEW PARTS/Chassis is not repaired)
CHASSIS

[GRAPHIC IMAGE APPEARS HERE]

Printed: 02/02/00

EXHIBIT (A-3)
FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
SPECIFICATIONS DOCUMENT

Page: 21 of 23

Drawing Number:
[*]

File Name:[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH
THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE
OMITTED PORTIONS.

SERIAL NUMBER REQUIREMENTS

4.3.1. BROCADE SERIAL NUMBER

Each switch (A5624-62001) shall have a unique Brocade serial number. The serial number consists of a four-digit prefix and a seven-digit sequential suffix. The serial number will comply with the Brocade format described below.

SERIAL NUMBER FORMAT: CCCC 1234567

CCCC defines the Product Code for [*]
The product code for [*] is "DN00"

1234567 is a sequential counter. (Alphanumeric)

This serial number will be generated by Brocade who will make sure to use all numbers of the sequential counter and prevent any double use of a number. Also, each hardware/software change to the product will have to be approved by the HP-ESBU Materials Engineer. Traceability is mandatory with this serial number. BROCADE serial number will appear in two places
-BROCADE regulatory label (see section 4.2.1 for label placement)
-HP product label (see section 4.2.1 for label placement)

4.3.2. OTHER SERIAL NUMBERS

Brocade shall ensure that any other serial numbers applied to components are unique and are traceable to the top level assembly (A5624-62001) serial number.

4.4. BAR CODE REQUIREMENTS:

- a. The bar code symbol bar shall be Code 39 (also known as "Code 3 of 9") as specified by the AIM Uniform Symbology Specification Code 39.
- b. The symbol bar shall start with a minimum "Quiet Zone" of .25 inches and an asterisk "Start" character (* in Code 39). The symbol shall end in the asterisk followed again by a minimum .25 inches of "Quiet Zone".
- c. The bar code height shall be .125 inches (minimum).

5. SPECIFICATIONS

Firmware Revision and EPL Info

- a. The fibre channel gigabit switch shall have the firmware revision 2.1.2 as of December 2, 1999.
- b. Brocade shall enable EPL mode in all switches shipped to HP.

Printed: 02/02/00 EXHIBIT (A-3) Page: 22 of 23
FIBRE CHANNEL GIGABIT SWITCH CONFIGURATION
SPECIFICATIONS DOCUMENT
Drawing Number: File Name:[*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (B)
ELIGIBLE PURCHASERS

HP Boeblingen Computer
Manufacturing Operation Division
Herrenberger Strasse 130
71034 Boeblingen Germany

Hewlett-Packard
8000 Foothills Blvd.
Roseville, CA 95747

HP Global Support Logistics
Product Support Division
1731 Aviation BLVD
BLDG L7
Lincoln, CA 95648

EXHIBIT (C)
PRICING AND FEES

OEM PRODUCT PRICING.

Subject to the terms and conditions of Agreement the per-unit pricing for OEM Product and Parts made available by Supplier to HP under this Agreement is as follows:

Brocade pricing is [*] for the 2802 and [*] for the 2401. There will be a [*] per switch Brocade [*] offered in the event [*].

[*] ---	Brocade 2802 16 Port Switch -----	Brocade 2401 8 Port Switch -----	Power Supply -----
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]			

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (D)

MAINTENANCE AND SUPPORT

1. GENERAL TERMS

1.1. Scope. Supplier will provide maintenance and support services to HP as specified in these Support Terms to allow HP to provide effective service to end-user customers of the Programs ("Customers"). Unless otherwise agreed, HP will serve as the primary support contact with Customers, and Supplier shall have no direct end-user customer support obligations except as otherwise provided herein. The obligations of each party are specified below.

1.2. Definitions. The following capitalized terms will have these meanings when used in these Support Terms:

1.2.1. "Action Plan" means the initial plan to be created and implemented by Supplier in response to an HP Problem Resolution or Escalation request. At a minimum, the Action Plan must contain the following:

[*]

1.2.2. "Escalation" is the process described in Article 4 below through which HP declares that a Customer situation requires immediate action. Under this process, the nature and severity of the problem is raised in each party's organization and additional resources are allocated as specified in these Support Terms toward solving the problem.

1.2.3. "Fix" means a change in a Program that removes a problem in that product. A Fix must be designed and tested so that it can be distributed to all Customers. A Fix may be temporary or permanent. A temporary Fix may be a patch or bug fix that temporarily modifies a Program or any software in the product without rebuilding that product. A permanent Fix provides a permanent solution to the problem, agreed upon by both HP and the Supplier.

1.2.4. "Problem Resolution" is the process described in Article 3 below through which HP submits a Request for Technical Assistance to notify Supplier when a problem (such as a fault or defect) is suspected in a Product. Under this

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

process, HP confirms the problem diagnosis with Supplier, and the parties cooperate to resolve the problem.

- 1.2.5. "Support Information" means Program Service Information and a Knowledge Data Base of known problems related to Supplier's support of Programs.
- 1.2.6. "Status Update" means Supplier's summary of the problem, describing the possible cause and the incremental work to be performed to reach resolution, including the Action Plan and the availability date of a Fix.
- 1.2.7. "Technical Assistance" is the process described in Article 2 below through which HP obtains assistance from Supplier in the support of Customers. Technical Assistance includes the exchange of information, such as product configuration, product operation, or other necessary answers or assistance to support questions.
- 1.2.8. "Tracking System" means an electronic database to be maintained by the parties for updating and communicating information pertaining to Service Requests, Technical Assistance, Problem Resolution and Escalation. The particular type of Tracking System will be mutually determined, as more particularly described in Section 1.7 below.
- 1.2.9. "Workaround" means a temporary solution or temporary Fix that restores operational capability for the Product, without severely compromising the performance of that product, until a permanent Fix is available. A Workaround can be a change in the configuration or a change in Customer documentation.
- 1.3. General Obligations. Each party agrees to the following general terms:
 - 1.3.1. For each Program, Supplier will provide a product support plan incorporating HP's support planning processes and support recommendations.
 - 1.3.2. Unless expressly authorized under these Support Terms, neither party will commit resources of the other to Customers.
 - 1.3.3. Both parties will provide such information to each other as is needed to implement these Support Terms, subject to the confidentiality and licensing provisions of this Agreement. Unless otherwise specified, all such information will be used by the other party solely for its internal use to fulfill its obligations under these Support Terms.

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

- 1.4. Strategic And Technical Support Contacts. Supplier and HP have each designated in Appendix I a Strategic Support Contact and a Technical Support Contact, which may be one and the same person. The Strategic Support Contacts will be the focal points for general relationship and process issues and will be responsible for managing the overall relationship of the parties. The Technical Support Contacts will be the focal points for Customer technical issues, including Technical Assistance, Problem Resolution and Escalation. Technical and Strategic Support Contacts may be changed at any time upon written notice to the other party.
- 1.5. Status Review Meetings. Supplier and HP Strategic Support Contacts or their designees will meet on a regular basis for the purpose of reviewing the effectiveness of their support relationship, suggesting changes, implementing improvements and sharing technical information. Meetings will take place at least [*] in the [*] of the Agreement, and at least [*] thereafter.
- 1.6. Communications Between Parties. Any support-related communications required or permitted to be given under these Support Terms will be made by telephone, or by electronic mail ("e-mail") in a standard format agreed to by the parties, to the appropriate contact.
- 1.7. Problem Tracking System. The parties agree to implement and maintain a problem tracking database (the "Tracking System") for inputting, accessing and updating information on Requests for Technical Assistance, Problem Resolution and Escalation.
- 1.8. Response Times. Supplier agrees to respond to HP requests for Technical Assistance, Problem Resolution and Escalation as soon as possible after receipt of the request, but in no event later than the response times specified in Appendix II to these Support Terms, in accordance with the problem classification listings in that Appendix.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

2. TECHNICAL ASSISTANCE

2.1. HP Request For Technical Assistance.

2.1.1. When making a request for Technical Assistance, HP will provide the following information to Supplier: (a) description of the situation; (b) the HP assigned call classification and the HP identification number; and (c) the call back phone number if different from the Technical Support Contact phone number listed in Appendix I.

1. Collect the following information for analysis

- [*]

2. Provide information for Brocade to be able to reproduce the problem: step by step procedure used to recreate the problem.

3. System configuration information:

- HOST : All OS platforms and versions; HBA type and driver version
- Storage: Disk subsystem type (i.e: RAID, JBOD, public, private), manufacturer and firmware version.
- Software Applications on host and storage
- Switch topology: Describe the network configuration. Provide SAN diagram if possible.
- Is the switch in a cascaded environment?
- How many switches are in the configuration?
- Are there parallel fabrics? Dual host, storage connections

[*] Effective as of the date of [*] of the Program, Supplier will make its Technical Support Contacts available to receive Technical Assistance requests from HP through the designated telephone number (1-888-AT FIBRE) established by Supplier for HP [*]

2.1.3. Supplier will take all necessary steps to resolve the Technical Assistance request and provide HP with the resolution and all available information as soon as it is available but no later than the response times specified in Appendix II.

2.1.4. HP agrees that the support engineers that contact Supplier for Technical Assistance have previously received a substantial level of training on the Product.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

2.2. Technical Assistance Records.

Supplier will keep a record of all Technical Assistance requests in Supplier's Tracking System and update their current status. As soon as possible after final resolution, Supplier will input a detailed description of the Technical Assistance request and resolution in Supplier's Tracking System.

2.2.1. Technical Assistance records will include, at a minimum, the following information:

1. HP call identification number and Supplier call tracking number.
2. Date of initial call.
3. Names of call participants.
4. Times and dates of subsequent calls to HP.
5. Model, version and serial number of Program(s) involved; and version of HP operating system involved.
6. Steps taken to diagnose and remedy the problem.
7. Any Action Plan required for follow-up or resolution.
8. Date of resolution.

2.3. Closing Technical Assistance Request. After a Technical Assistance request is resolved and the resolution information is communicated to HP and documented in the Tracking System, HP will contact Supplier to close the request.

3. PROBLEM RESOLUTION

3.1. Requesting Problem Resolution Service.

3.1.1. HP will receive defect reports, inquiries and problem calls about Programs from HP's Customers. If HP is unable to resolve a problem after Technical Assistance and after reasonable efforts, HP may provide Supplier a Request for Technical Assistance.

3.1.2. When making a Request for Technical Assistance, HP will provide the following information in addition to the information required when requesting Technical Assistance listed in Section 2.1.1 & 2.2.2 above:

1. HP call identification number and Supplier call tracking number.
2. Problem description.
3. Description of diagnostic work performed and data collected by HP.

4. Action being requested (e.g. remedying or assisting in isolating the fault)
5. Problem classification pursuant to the definitions in Appendix II.

3.2. Problem Resolution Process.

- 3.2.1. After Supplier receives a Request for Technical Assistance, it will acknowledge receipt and then confirm HP's diagnosis of the problem, and when it is mutually deemed necessary, [*] contact may be established. Supplier will take appropriate corrective action on the Request for Technical Assistance to resolve the problem as soon as possible, but in no event later than the response times specified in Appendix II, according to the classification of the problem.
- 3.2.2. In the event that neither HP nor Supplier is able to isolate and resolve a Critical or Serious situation, HP may request that Supplier assist HP in dialing into the Customer's system directly to assist HP in analyzing and troubleshooting the problem. Supplier will provide any necessary diagnostic tools to troubleshoot the problem on site. HP will provide Supplier access through telnet or web tools.
- 3.2.3. Supplier will provide an Action Plan within the response times listed in Appendix II, based on HP's classification of the problem. An Action Plan may require Supplier to: (a) reprioritize its other activities in order to meet the commitment to solve a Customer problem; (b) increase resources to address the problem; (c) assist HP with remote dial into a Customer system for direct observation.
- 3.2.4. Supplier will notify HP upon resolution of the problem or upon the availability of a Fix or Workaround. If a permanent resolution cannot be achieved within the response times specified in Appendix II, Supplier will notify HP of any modification to the original Action Plan and the anticipated availability of a permanent problem resolution.
- 3.2.5. Supplier will enter in the Supplier's Tracking System, all Status Updates, Action Plans and other communications requested by HP's Technical Support Contact.. Supplier may request additional information from the HP Technical Support Contact in order to meet the response times specified in Appendix II.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

3.3. Problem Resolution Records.

3.3.1. Supplier will keep records of all Requests for Technical Assistance in the Supplier's Tracking System and update their current status. Supplier will also be responsible for accessing, reviewing, and updating defect information related to the Programs.

3.3.2. Escalation records will include, at a minimum, the items listed in Sections 2.2.2 and 3.1.2 above along with the following information:

1. Summary of the problem as finally diagnosed.
2. Detailed description of the causes and symptoms.
3. Actions taken to resolve the situation.
4. Date of Problem Resolution request and final resolution.
5. Likelihood of problem recurring and recommended action in the event of a recurrence.
6. Supplier and HP Service Request numbers for cross reference purposes.
7. Fix or Workaround implemented and how and when available.
8. Tests performed on the Fix or Workaround.
9. If only temporary Fix or Workaround is available, the Action Plan for permanent Fix.

3.4. Closing Problem Resolution Request.

3.4.1. After problem resolution has been communicated to HP and verified by agreement of HP and the Customer, HP will notify Supplier that HP is closing the Problem Resolution and Request for Technical Assistance.

4. ESCALATION

4.1. Requesting An Escalation.

4.1.1. If HP determines that [*] are needed to resolve a Customer situation or to [*] may request an Escalation. Supplier will cooperate with HP by following the Escalation procedures set forth below.

4.1.2. When requesting Escalation, in addition to the information required under Problem Resolution in Section 3.1.2 above, HP will provide:

1. Caller's location.
2. Any currently installed Fixes or Workarounds.
3. Reason for escalation.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

4. Steps taken to resolve problem.
5. Any Requests for Technical Assistance (RTA) issued with respect to the problem.

[*] Response To Escalations. Supplier will continue to cooperate with HP until the Escalation is resolved, or until HP and Supplier mutually agree that all reasonable means of resolution have been exhausted. Effective as of the date of first customer shipment, Supplier will respond to an Escalation from HP
[*]

4.3. Escalation Process. HP's Technical Support Contact may contact Supplier's Technical Support Contact to request Escalation. HP will follow-up by e-mail with any additional information available at the time. Supplier will have primary responsibility to resolve the Escalation, and when mutually deemed necessary, [*] contact may be established. If Service Requests are produced as a result of the Escalation, the procedure defined above for Problem Resolution must be followed.

4.4. Escalation Records.

4.4.1. Supplier will keep a record of all Escalation requests in the Supplier's Tracking System and update their current status.

4.4.2. Escalation records will include, at a minimum, the items listed in Section 3.3.2 above along with the following information:

6. [*].

4.5. The Role Of Technical Support Contact During Escalations. The Supplier's Technical Support Contact will prepare an Action Plan as quickly as possible [*] request for Escalation. This Action Plan may be modified by mutual agreement of the parties.

[*] Monitor Phase. A Monitor Phase may be implemented by HP to evaluate the situation over a period of time to verify that the problem has been resolved to the Customer's satisfaction. The Monitor Phase starts after a resolution is provided to the Customer. When the problem has been resolved to the Customer's satisfaction, the Monitor Phase is terminated and the Escalation is closed by HP. Both HP and

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Supplier will coordinate monitoring activities [*] will determine the [*]

- 4.7. Closing An Escalation. When HP and the Customer agree that the problem has been resolved satisfactorily or the situation no longer requires Escalation, the Escalation will be closed by HP at the end of the Monitor Phase. The Tracking System will then be updated as necessary by Supplier to record the results of the Monitor Phase, including any actions taken, results of those actions, likelihood of problem reoccurrence and recommended future actions.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

APPENDIX I

STRATEGIC AND TECHNICAL SUPPORT CONTACTS

Initial calls for Brocade's Technical Assistance need to go through:

Phone: 1-888-ATFIBRE
Email: hp-support@brocade.com

The following persons are designated to serve as Strategic Support Contacts:

Supplier:		HP:	
Name:	[*]	Name:	[*]
Address:	Brocade Communications Systems, Inc. 1901 Guadalupe Parkway San Jose, CA 95131	Address:	Hewlett Packard Company 8000 Foothills Blvd. Roseville, CA 95747
Phone:	[*]	Phone:	[*]
Fax:	[*]	Fax:	[*]
Email:	[*]	Email:	[*]

The following persons are designated as Technical Support Contacts:

Supplier:		HP:	
Name:	[*]	Name:	Don Roeder
Address:	Brocade Communications Systems, Inc 1901 Guadalupe Parkway San Jose, CA 95131	Address:	Hewlett Packard Company 8000 Foothills Blvd. Roseville, CA 95747
Phone:	[*]	Phone:	[*]
Fax:	[*]	Fax:	[*]
Email:	[*]	Email:	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

APPENDIX II
RESPONSE TIMES

HP Call/Problem Classification	Acknowledge Problem receipt; Engineer assigned	Initial Action Plan/Status Update	Fix, or Workaround to HP	Permanent Fix or long term Action for a permanent Fix
[*]	[*]	[*]	[*]	[*]

CLASSIFICATION OF PROBLEM SITUATION.

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (E)

HP EQUIPMENT LOAN AGREEMENT

THIS HP EQUIPMENT LOAN AGREEMENT ("Equipment Loan Agreement") is made _____, 2000, (the "Effective Date") by and between Hewlett-Packard Company ("HP") and Brocade Communications Systems, Inc. (SUPPLIER) as follows:

1. LOAN. HP hereby loans to SUPPLIER, for the applicable Term, the HP-owned equipment, which may consist of hardware and software (collectively, "HP Equipment") described in the HP Equipment Schedule attached as Attachment (A). HP may, from time to time, add, upgrade, or remove HP Equipment from SUPPLIER's site during the Term. All HP Equipment received by SUPPLIER during the Term shall be described in an amended HP Equipment Schedule signed by SUPPLIER and appended to this Equipment Loan Agreement. SUPPLIER agrees, by its receipt of HP Equipment, that all HP Equipment is subject to the provisions of this Equipment Loan Agreement.
2. TERM. This Equipment Loan Agreement shall be for a Term of [*] after the Effective Date (the "Term") of this Agreement, unless earlier terminated by HP or SUPPLIER upon [*] written notice to the other. HP may m writing extend the Term, or establish a separate Term with respect to particular items of HP Equipment.
3. USE. SUPPLIER may use the HP Equipment solely for testing and developing OEM Products under this Agreement. SUPPLIER shall not move any HP Equipment from the location set forth in the HP Equipment Schedule without the prior written consent of HP. SUPPLIER's right to use the HP Equipment is non-transferable. SUPPLIER assumes all risk for the use of the HP Equipment.
4. SOFTWARE. All software provided with the HP Equipment or for test and development of the OEM Products shall be licensed under the then current HP Software License Terms, the current form of which is attached as Attachment (B). The type of license to use for any particular software is stated in the HP Equipment Schedule.
5. OWNERSHIP. HP retains all right, title, and ownership to the HP Equipment, unless any such HP Equipment is purchased by SUPPLIER. SUPPLIER hereby nominates and appoints HP as its attorney-in-fact for the sole purpose of executing on SUPPLIER's behalf UCC-1 financing statements (and any appropriate amendments thereto) under the provisions of the Uniform Commercial Code for the HP Equipment loaned to SUPPLIER hereunder. If requested by HP, SUPPLIER shall affix any label or marking supplied by HP evidencing HP's ownership of the HP Equipment. HP may, from time to time, inspect the HP Equipment. SUPPLIER shall not encumber the HP Equipment in any manner.
6. WARRANTY DISCLAIMER. ALL HP EQUIPMENT IS FURNISHED "AS IS", WITHOUT WARRANTY OF ANY KIND, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SUPPLIER understands that some newly manufactured HP Equipment may contain remanufactured parts equivalent to new in performance.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

7. MAINTENANCE. During the Term, SUPPLIER will maintain all HP Equipment in good operating order and condition. All maintenance must be provided by personnel authorized by HP. HP will provide standard support and maintenance for the HP Equipment [*] to SUPPLIER during the Term; however, [*] due to SUPPLIER's negligence shall be borne by SUPPLIER. SUPPLIER shall be responsible for providing HP personnel ready and safe access to the HP Equipment for such maintenance and support.
8. RISK OF LOSS. SUPPLIER shall bear [*] risk of loss with respect to the HP Equipment from receipt thereof until such HP Equipment is returned to HP. All HP Equipment returned to HP must include the same components as received by SUPPLIER, and must be in good operating order and condition. Charges may be imposed by HP if SUPPLIER fails to return the HP Equipment in such condition or within the return timeframe set forth herein.
9. SHIPPING COSTS. Unless otherwise agreed in writing by HP SUPPLIER shall be responsible for and pay [*] with respect to the delivery or return of any HP Equipment hereunder.
10. LIMITATION OF LIABILITY. HP SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY, ARISING OUT OF THIS EQUIPMENT LOAN AGREEMENT OR SUPPLIER'S USE OF THE HP EQUIPMENT.
11. TERMINATION. Upon expiration or earlier termination of the Term, SUPPLIER shall (i) return to HP all HP Equipment [*] or (ii) purchase the HP Equipment pursuant to Section 12 below. In the event that SUPPLIER fails to return the HP Equipment to HP upon expiration of the Term within such [*] SUPPLIER shall be deemed to have elected to purchase the HP Equipment, and HP will invoice SUPPLIER accordingly.
12. PURCHASE OPTION. Upon expiration of the Term, SUPPLIER may elect to purchase the HP Equipment from HP under HP's then current standard terms and conditions, provided that such HP Equipment shall not be purchased for resale. Upon purchase, such HP Equipment will be provided with HP's then current standard warranty provisions for used equipment. The purchase price for HP Equipment purchased under this Section 12 will be the [*] less any mutually agreed discount. No other promotional or purchase discounts will apply. Such purchase will not qualify for any stock rotation or price protection under any other agreement which SUPPLIER may have with HP.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

13. GENERAL PROVISIONS.

- (i) This Equipment Loan Agreement may not be assigned by SUPPLIER.
- (ii) This Equipment Loan Agreement and any attachments constitute the entire agreement between the parties relating to transactions hereunder and will supersede any previous communication, representation or agreement by either party, whether oral or written. Any modifications or amendments must be in writing and signed by both parties
- (iii) This Equipment Loan Agreement shall be governed by and construed in accordance with the laws of the State of California, exclusive of its choice-of-law provisions.

BROCADE COMMUNICATIONS
SYSTEMS, INC.

HEWLETT-PACKARD COMPANY

By: /s/ Charles Smith

By: /s/ Marilyn Edling

Name: Charles Smith
Title: Vice President, WW Sales

Name: Marilyn Edling
Title: General Manager, ESBU

ATTACHMENT (A)
HP EQUIPMENT SCHEDULE

EQUIPMENT LOANED TO BROCADE COMMUNICATIONS SYSTEMS:

[*]

NOTE: Contact at Supplier regarding all loaned equipment is Chris Beauchamp
#(408) 487-8166.

SOFTWARE:	LICENSE TYPE:
LOCATION(S):	
ACKNOWLEDGED:	
BROCADE COMMUNICATIONS SYSTEMS, INC.	HEWLETT-PACKARD COMPANY

By: /s/ Charles Smith ----- Name: Charles Smith -----	By: /s/ Marilyn Edling ----- Name: Marilyn Edling -----
Title: Vice-President, WW Sales -----	Title: General Manager, ESBU -----

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH
THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE
OMITTED PORTIONS.

ATTACHMENT (B)

HP SOFTWARE LICENSE TERMS

NOTICE

USE OF THE SOFTWARE IS SUBJECT TO THE HP SOFTWARE LICENSE TERMS SET FORTH BELOW. USING THE SOFTWARE INDICATES SUPPLIER'S ACCEPTANCE OF THESE LICENSE TERMS. IF SUPPLIER DOES NOT ACCEPT THESE LICENSE TERMS, SUPPLIER MAY RETURN THE SOFTWARE FOR A FULL REFUND. IF THE SOFTWARE IS BUNDLED WITH ANOTHER PRODUCT, SUPPLIER MAY RETURN THE ENTIRE UNUSED PRODUCT FOR A FULL REFUND.

HP SOFTWARE LICENSE TERMS

The following License Terms govern SUPPLIER's use of the accompanying Software unless SUPPLIER has a separate written agreement with HP.

LICENSE GRANT. HP grants SUPPLIER a license to Use one copy of the Software. "Use" means storing, loading, installing, executing or displaying the Software. SUPPLIER may not modify the Software or disable any licensing or control features of the Software. If the Software is licensed for "concurrent use", SUPPLIER may not allow more than the maximum number of authorized users to Use the Software concurrently.

OWNERSHIP. The Software is owned and copyrighted by HP or its third party suppliers. SUPPLIER's license confers no title or ownership in the Software and is not a sale of any rights in the Software. HP's third party suppliers may protect their rights in the event of any violation of these License Terms.

COPIES AND ADAPTATIONS. SUPPLIER may only make copies or adaptations of the Software for archival purposes or when copying or adaptation is an essential step in the authorized Use of the Software. SUPPLIER must reproduce all copyright notices in the original Software on all copies or adaptations. SUPPLIER may not copy the Software onto any bulletin board or similar system.

NO DISASSEMBLY OR DECRYPTION. SUPPLIER may not disassemble or decompile the Software unless HP's prior written consent is obtained. In some jurisdictions, HP's consent may not be required for limited disassembly or decompilation. Upon request, SUPPLIER will provide HP with reasonably detailed information regarding any disassembly or decompilation. SUPPLIER may not decrypt the Software unless decryption is a necessary part of the operation of the Software.

TRANSFER. SUPPLIER's license will automatically terminate upon any transfer of the Software. Upon transfer, SUPPLIER must deliver the Software, including any copies and related documentation, to the transferee. The transferee must accept these License Terms as a condition to the transfer.

TERMINATION. HP may terminate SUPPLIER's license upon notice for failure to comply with any of these License Terms. Upon termination, SUPPLIER must immediately destroy the Software, together with all copies, adaptations and merged portions in any form.

EXPORT REQUIREMENTS. SUPPLIER may not export or re-export the Software or any copy or adaptation in violation of any applicable laws or regulations.

U.S. GOVERNMENT RESTRICTED RIGHTS. The Software and any accompanying documentation have been developed entirely at private expense. They are delivered and licensed as "commercial computer software" as defined in DEARS 252.227-7013 (Oct 1988), DEARS 252.211-7015 (May 1991) or DEARS 252.227-7014 (Jun 1995), as a "commercial item" as defined in FAR 2.101(a), or as "Restricted computer software" as defined in FAR 52.227-19 (Jun 1987)(or any equivalent agency regulation or contract clause), whichever is applicable. SUPPLIER have only those rights provided for such Software and any accompanying documentation by the applicable FAR or DEARS clause or the HP standard software agreement for the product involved.

EXHIBIT (F)

CONFIDENTIAL DISCLOSURE AGREEMENT

This page is intentionally left blank, with a copy of all current HP / Brocade Confidential Disclosure Agreements inserted immediately following this page.

EXHIBIT (F)

[GRAPHIC IMAGE APPEARS HERE]

CONFIDENTIAL DISCLOSURE
AGREEMENT

Effective Date: 4/15/99

In order to protect certain confidential information, Hewlett-Packard Company and its corporate affiliates ("HP"), and the "Participants" identified below, agree that:

1. DISCLOSING PARTY: The parties disclosing confidential information ("Discloser") are: Hewlett Packard (ESBU) 8000 Foothills Blvd, Roseville, CA 95747; Brocade Communications Systems, Inc. 1901 Guadalupe Parkway, San Jose, CA 95131 ("Participant").

2. PRIMARY REPRESENTATIVE: Each party's representative for coordinating disclosure or receipt of confidential information is:

HP: [*]

PARTICIPANT: [*]; Brocade Communications Inc.

3. DESCRIPTION OF CONFIDENTIAL INFORMATION: The confidential information disclosed under this Agreement is described as:

HP: [*]

PARTICIPANT: [*]

4. USE OF CONFIDENTIAL INFORMATION: The party receiving confidential information ("Recipient") shall make use of the confidential information only for the following purpose (e.g., "evaluation and testing for a make/buy decision on project xyz.") Recipient shall only disclose the discloser's Confidential Information to those employees who have a need to know for the purpose authorized under Section 4."

HP: [*]

BROCADE: [*].

5. CONFIDENTIALITY PERIOD: This Agreement and Recipient's duty to hold confidential information in confidence expire on: [*]

6. DISCLOSURE PERIOD: This Agreement pertains to confidential information that is disclosed between the Effective Date and [*]

7. STANDARD OF CARE: Recipient's shall protect the disclosed confidential information by using the same degree of care, but no less than a reasonable degree of care, to prevent the unauthorized use, dissemination, or publication of the confidential information as Recipient uses to protect its own confidential information of a like nature. Without limiting the foregoing, Recipient shall not disclose the disclosed confidential information to any affiliate or other person or entity.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (F)

8. MARKING: Recipient's obligations shall only extend to confidential information that is described in paragraph 3, and that: (a) comprises specific materials individually listed in paragraph 3; or, (b) is marked as confidential at the time of disclosure; or, (c) is unmarked (e.g. orally disclosed) but treated as confidential at the time of disclosure, and is designated as confidential in a written memorandum sent to Recipient's primary representative within thirty days of disclosure, summarizing the confidential information sufficiently for identification.

9. EXCLUSIONS: This Agreement imposes no obligation upon Recipient with respect to information that: (a) was in Recipient's possession before receipt from Discloser; (b) is or becomes a matter of public knowledge through no fault of Recipient; (c) is rightfully received by Recipient from a third party without a duty of confidentiality; (d) is disclosed by Discloser to a third party without a duty of confidentiality on the third party; (e) is independently developed by Recipient; (f) is disclosed under operation of law; or (g) is disclosed by Recipient with Discloser's prior written approval.

10. WARRANTY: Each Discloser warrants that it has the right to make the disclosures under this Agreement. NO OTHER WARRANTIES ARE MADE BY ANY PARTY UNDER THIS AGREEMENT. ANY INFORMATION EXCHANGED UNDER THIS AGREEMENT IS PROVIDED "AS IS".

11. RIGHTS: No party acquires any intellectual property rights under this Agreement except the limited rights necessary to carry out the purposes set forth in paragraph 4.

MISCELLANEOUS

12. This Agreement imposes no obligation on any party to purchase, sell, license, transfer or otherwise dispose of any technology, services or products.

13. This Agreement does not create any agency or partnership relationship.

14. All additions or modifications to this Agreement must be made in writing and must be signed by all parties.

15. This Agreement is made under, and shall be construed according to, the laws of the State of California, U.S.A.

[*]

HEWLETT-PACKARD COMPANY	PARTICIPANT
Entity: Enterprise Storage Business Unit	Company: Brocade Communications Systems, Inc.
Address: 8000 Foothills Blvd., Roseville, CA. 95747	Address: 1901 Guadalupe Parkway, San Jose, CA 95131
By: /s/ Rod Bean ----- (Functional Manager's Signature)	By: /s/ Charles Smith ----- (Authorized Signature)
Name: Rod Bean	Name: Charles Smith
Title: Materials Manager	Title: VP Worldwide Sales

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (G)

RECIPIENTS FOR RECEIPT OF NOTICES

FOR HP:

Business contact:
[*]
8000 Foothills Blvd
[*]

FOR SUPPLIER:

Business contact:
[*]
1901 Guadalupe Pkwy
San Jose, CA 95131
[*]

[*]
1901 Guadalupe Pkwy
San Jose, CA 95131
[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (H)

HP SUPPLIER QUALITY SYSTEM REQUIREMENTS

-- HEWLETT-PACKARD CO. --

[*]

LTR.	REVISIONS	DATE	INITIALS CM ENGINEER
A	First Draft	10/20/99	[*]
B	As Issued.	11/5/99	[*]
C	As Issued.	11/12/99	[*]
D	As Issued.	12/6/99	[*]
E	As Issued.	12/21/99	[*]
F	As Issued.	12/22/99	[*]

[GRAPHIC IMAGE APPEARS HERE]

HP PROPRIETARY

This document is the property of Hewlett-Packard Company (HP) and contains confidential and proprietary information of HP. Neither it, nor the information contained herein shall be disclosed to others, or duplicated, or used by other except as authorized by HP writing.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

ASSEMBLY #: N/A

HP P/N: N/A

DATE: DECEMBER 22, 1999

DESCRIPTION:
FIBRE CHANNEL GIGABIT SWITCH SUPPLIER
QUALITY/ RELIABILITY REQUIREMENTS
DOCUMENT

[*]

[*]

[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH
THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE
OMITTED PORTIONS.

[*] FC SWITCH
SUPPLIER QUALITY/RELIABILITY
REQUIREMENTS DOCUMENT

[*]
Supplier: Brocade

DOCUMENT REVISION HISTORY

REVISION #	DATE	DESCRIPTION
00	10/20/99	- First Draft
01	11/5/99	- Updated 5 X 5 p/n for [*] switch & section 4.1, 5.2
02	11/9/99	- Added the FRU replacement/exchange number (4.1)
03	12/6/99	- Added the drawing number [*] & changed [*]
04	12/21/99	- Updated HP incoming inspection audit (2.0), OOBA Lot Sample & Inspection at BROCADE (3.0), Field Quality/Reliability where [*] Quality Data expectations (5.0), Communications Expectations (6.0), Supplier Quality System (7.0)
05	12/22/99	- Updated AFR from [*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

TABLE OF CONTENTS

[*] PURPOSE.....5

2. DEFECTIVE PRODUCT.....5

 2.1. [*]:.....5

 2.2. [*].....5

 2.3. HP INCOMING [*].....6

3. IN-PROCESS QUALITY7

 3.1. IN-PROCESS FAILURE RATE.....7

 3.2. IN PROCESS FAILURE ANALYSIS EXPECTATIONS.....7

4. FIELD QUALITY / RELIABILITY.....8

 4.1. AFR (ANNUALIZED FAILURE RATE).....8

 4.2. FIELD FAILURE ANALYSIS EXPECTATIONS.....10

5. QUALITY DATA EXPECTATIONS.....10

 5.1. HP'S RESPONSIBILITY.....10

 5.2. SUPPLIER'S RESPONSIBILITY.....10

 5.2.1 QUARTERLY REPORTING.....10

 5.2.2 MONTHLY REPORTING.....11

 5.2.3 WEEKLY REPORTING.....8

 5.2.4 OTHER REPORTING.....8

6. COMMUNICATION EXPECTATIONS.....12

 6.1. PRODUCT CHANGES REQUIRING HP APPROVAL.....12

 6.2. PROCESS CHANGES REQUIRING HP APPROVAL.....12

 6.3. SHIPMENT HOLD NOTIFICATION.....12

 6.4. WEEKLY PHONE CONFERENCE.....12

7. SUPPLIER QUALITY SYSTEM9

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

1. PURPOSE

The purpose of this Quality/Reliability Requirements Document is to establish an understanding and agreement between Hewlett-Packard (HP) and Seller with regard to quality and reliability expectations and responsibilities. The terms Supplier and Seller are used interchangeably in this Quality/Reliability Requirements Document.

It is HP's objective to receive Product of the [*]. The Product must consistently [*] the requirements of this document and the individual specifications applicable to each Product. It is HP's expectation that Supplier shall strive to ship defect-free, fully tested Product as measured at the first operational test at HP. Repaired units are subject to the same Product Specifications as when originally shipped.

HP's objective is to work in close cooperation with Supplier to resolve any quality issue, and expects the Supplier to work diligently to resolve any quality issue.

2. DEFECTIVE PRODUCT:

HP shall inform Supplier of any units or lots that fail, and provide Supplier with yield percentages. Defective units or lots will be shipped to Supplier's facility as instructed by Supplier. Supplier shall test and verify all mutually agreed upon failed units, and provide the data of failure symptoms observed or NTF (No Trouble Found), on all units returned from HP worldwide manufacturing sites.

[*]

2.2 DOCK-TO-STOCK

In general, material is received directly to stock, unless a [*] is required (see Section 2.3, HP [*] & Section 3 In-Process Quality Audit at BROCADE). All new products must go through a [*] HP-ESBU. In addition, all new suppliers must demonstrate relevant process control through a quality system [*] Provided both conditions are successfully fulfilled, the subsequent shipments will not be inspected as they are received by HP-ESBU.

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

[*] HP Incoming [*]

HP shall [*] the [*] units received from the Supplier. If there are four functional failures, ten cosmetic failures, or a combination of both totaling ten, HP shall [*]. A manufacturing team consisting of at least the materials and product engineers shall perform the [*].

All failures require a [*] report completed by the Supplier [*] days after notification. If the Supplier needs the [*] unit to determine the root cause, the Supplier shall complete a [*] report within [*] after receipt of the [*] The report shall contain detailed explanation of the root cause and [*](s) performed. HP shall [*] the report during the [*].

[*]

The criteria to be used by HP on the [*] are referenced in the following standard documentation:

DRAWING NUMBER	DESCRIPTION
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

c) [*]

3. OOBA LOT SAMPLE INSPECTION AT BROCADE

3.1 OOBA LOT SAMPLE INSPECTION

OOBA is performed after a [*] on the Brocade manufacturing line. If there is going to be an error on the line it will be gross error that would be seen in all the units. This is what OOBA is designed to catch. The focus of OOBA, therefore, is to screen for gross failures, rectify and, lots with problems, and implement [*] based on the observed failures.

The In-Process Lot Sample Inspection has been established at the levels specified in the following chart for each part number. The In-Process Lot Sample Inspection shall be used when determining the Q1 score for the TQRDC/E review.

PART DESCRIPTION	PART NUMBER	DPM UPPER LIMIT
[*]	[*]	[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

I. [*]

3.2 FAILURE ANALYSIS EXPECTATIONS

Supplier shall test and verify all unit failures returned by lip worldwide manufacturing organizations, HP field or found in BROCADE's manufacturing line.

The supplier shall promptly institute the [*] report and [*] that may be required to prevent any further rejects for such cause.

PLEASE SEE THE FOLLOWING SECTION FOR REPORTING EXPECTATIONS.

4. FIELD QUALITY / RELIABILITY

4.1 AFR (ANNUAL FAILURE RATE)

AFR CALCULATION FORMULA

[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

The AFR Limits and Stretch Goals are defined in the following AFR Chart. The Field Failure Rate (AFR) Limit shall be used when determining the Q2 score for the TQRDC/E review.

PART DESCRIPTION	HP PART NUMBER	FIELD FAILURE RATE (AFR) LIMIT
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]
[*]	[*]	[*]

These number do not include [*]

These numbers do no include [*]

4.2 FIELD FAILURE ANALYSIS EXPECTATIONS

[*]

5. QUALITY DATA EXPECTATIONS

Quality data supplied by Supplier shall include, but not be limited to, [*], detailed incident reports by serial number, and [*] regarding failures.

5.1 HP'S RESPONSIBILITY

HP shall inform Supplier of In-Process Failures that occur at ESBU-Roseville on a [*] basis.

5.2 SUPPLIER'S RESPONSIBILITY

5.2.1 [*] REPORTING

Supplier shall provide the following reports to HP-ESBU's Materials Engineer on a [*] basis:

[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

5.2.2 [*] REPORTING

Supplier shall provide the following reports to HP-ESBU's Mass Storage basis:

- [*].

BROCADE ECO#	IMPLEMENTATION DATA (ECO RELEASED TO MFG)	S/N RANGE	BROCADE P/N, REVISION	F/W VERSION	DESCRIPTION OF F/W CHANGE	H/W VERSION	DESCRIPTION OF H/W CHANGE
[*]	[*]	[*]	[*]	[*]	[*]	[*]	[*]

5.2.3 WEEKLY REPORTING

Supplier shall provide the following reports to HP Fibre Channel Materials Engineer on a [*] basis:

- [*]

5.2.4 OTHER REPORTING

Supplier shall provide the following additional information to the HP Fibre Channel Materials Engineer.

- Failure Analysis (FA) Report upon completion.

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

6. COMMUNICATION EXPECTATIONS

6.1 PRODUCT CHANGES REQUIRING HP APPROVAL

The evaluation period for changes is covered in the HP/BROCADE Purchase Agreement. The intent is to allow HP [*] to review the proposed change and Supplier [*] and to perform [*] if necessary. Supplier must [*] of upcoming changes in order to assure a smooth implementation. Changes must be communicated in writing in the form of an Engineering Change Request (ECR) document and sent to the Materials Engineer. Changes that must be communicated in writing are:

[*] 3. [*].

6.2 PROCESS CHANGES REQUIRING HP APPROVAL

Supplier shall notify HP of any major changes to the manufacturing process in writing [*] prior to proposed implementation. These include:

1. [*]

6.3 SHIPMENT HOLD NOTIFICATION

Supplier shall notify HP verbally of any line-down or ship hold situations that will adversely affect HP shipments or HP's installed base within [*] of such situation occurring. A written analysis of HP's inventory exposure and a recovery plan, if applicable, shall be provided within [*] of such situation occurring.

6.4 [*]

Supplier will maintain a [*] with HP to address all open issues and will [*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

7. SUPPLIER QUALITY SYSTEM

A. [*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

** HP CONFIDENTIAL **

EXHIBIT (I)

HP END USER SOFTWARE LICENSE AGREEMENT

NOTICE

ATTENTION: USE OF THE SOFTWARE IS SUBJECT TO THE HP SOFTWARE LICENSE TERMS CONTAINED IN THE ACCOMPANYING DOCUMENTATION. USING THE SOFTWARE INDICATES YOUR ACCEPTANCE OF THESE LICENSE TERMS. IF YOU DO NOT ACCEPT THESE LICENSE TERMS, YOU MAY RETURN THE SOFTWARE FOR A FULL REFUND. IF THE SOFTWARE IS BUNDLED WITH ANOTHER PRODUCT, YOU MAY RETURN THE ENTIRE UNUSED PRODUCT FOR A FULL REFUND.

** HP CONFIDENTIAL **

ATTENTION: USE OF THE SOFTWARE IS SUBJECT TO THE HP SOFTWARE LICENSE TERMS SET FORTH BELOW. USING THE SOFTWARE INDICATES YOUR ACCEPTANCE OF THESE LICENSE TERMS. IF YOU DO NOT ACCEPT THESE LICENSE TERMS, YOU MAY RETURN THE SOFTWARE FOR A FULL REFUND. IF THE SOFTWARE IS BUNDLED WITH ANOTHER PRODUCT, YOU MAY RETURN THE ENTIRE UNUSED PRODUCT FOR A FULL REFUND.

HP SOFTWARE LICENSE TERMS

The following License Terms govern your use of the accompanying Software unless you have a separate written agreement with HP.

LICENSE GRANT. HP grants you a license to Use one copy of the Software. "Use" means storing, loading, installing, executing or displaying the Software. You may not modify the Software or disable any licensing or control features of the Software. If the Software is licensed for "concurrent use", you may not allow more than the maximum number of authorized users to Use the Software concurrently.

OWNERSHIP. The Software is owned and copyrighted by HP or its third party suppliers. Your license confers no title or ownership and is not a sale of any rights in the Software, its documentation or the media on which they are recorded or printed. Third party suppliers may protect their rights in the Software in the event of any infringement.

COPIES AND ADAPTATIONS. You may only make copies or adaptations of the Software for archival purposes or when copying or adaptation is an essential step in the authorized Use of the Software on a backup product, provided that copies and adaptations are used in no other manner and provided further that Use on the backup product is discontinued when the original or replacement product becomes operable. You must reproduce all copyright notices in the original Software on all copies or adaptations. You may not copy the Software onto any public or distributed network.

NO DISASSEMBLY OR DECRYPTION. You may not disassemble or decompile the Software without HP's prior written consent. Where you have other rights under statute, you will provide HP with reasonably detailed information regarding any intended disassembly or decompilation. You may not decrypt the Software unless necessary for the legitimate use of the Software.

TRANSFER. Your license will automatically terminate upon any transfer of the Software. Upon transfer, you must deliver the Software, including any copies and related documentation, to the transferee. The transferee must accept these License Terms as a condition to the transfer.

TERMINATION. HP may terminate your license upon notice for failure to comply with any of these License Terms. Upon termination, you must immediately destroy the Software, together with all copies, adaptations and merged portions in any form.

EXPORT REQUIREMENTS. You may not export or re-export the Software or any copy or adaptation in violation of any applicable laws or regulations.

U.S. GOVERNMENT RESTRICTED RIGHTS. The Software and any accompanying documentation have been developed entirely at private expense. They are delivered and licensed as "commercial computer software" as defined in DFARS 252.227-7013 (Oct 1988), DFARS 252.211-7015 (May 1991) or DFARS 252.227-7014 (Jun 1995), as a "commercial item" as defined in FAR 2.101(a), or as "Restricted computer software" as defined in FAR 52.337-19 (Jun 1987) (or any equivalent agency regulation or contract clause), whichever is applicable. You have only those rights provided for such Software and any accompanying documentation by the applicable FAR or DFARS clause or the HP standard software agreement for the product involved.

BROCADE/HP CONFIDENTIAL

AMENDMENT
TO
OEM PURCHASE AGREEMENT
BETWEEN
HEWLETT-PACKARD COMPANY
AND
BROCADE COMMUNICATIONS SYSTEMS, INC.

This document (the "Amendment") is an amendment to the OEM Purchase Agreement (the "Agreement") with an effective date of January 28, 2000, by and between Brocade Communications Systems, Inc. ("Supplier") and Hewlett-Packard Company ("HP"). If there are any inconsistencies or conflicts between the terms and conditions of the Agreement and this Amendment, the terms and conditions of this Amendment shall govern and prevail.

This Amendment entered into on April 20, 2001, is intended to further document the mutual understandings and promises between both parties.

Supplier and HP hereby agree to amend the Agreement as follows:

OEM Product Software Pricing. All software products listed in this Amendment shall be included in the Agreement as listed and referenced as both OEM Products and Software in Exhibit (A) therein. Subject to the terms and conditions of the Agreement, [*] made available by Supplier to HP are as set forth in this Amendment. All prices listed below are in United States Dollars (USD) and are for [*] OEM Product units only. All OEM Product pricing herein is subject to all nonconflicting terms and conditions of the Agreement and more particularly those of Exhibit (C) therein.

New Silkworm 2400 / [*]-[*]. All new Orders for Supplier's 2400 and [*] OEM Products submitted to Supplier by HP on or after the Effective Date of this Amendment will [*] as [*] under the applicable [*] set forth below, with such [*] to be provided by Supplier to HP as a [*] and [*] with each Silkworm 2400 and [*] OEM Product unit ordered by HP. HP may also purchase, [*], additional [*] as may be required to upgrade existing Silkworm 2400 or [*] customer OEM Product units at the applicable [*] listed below.

No Distribution Obligation. Notwithstanding anything to the contrary herein, [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

orders is expressly subject to the provisions of Section 13.1 (Marketing and Distribution) of the Agreement.

Installed Base Software Licenses. Upon the Effective Date of this Amendment, Supplier will promptly provide to HP, [*], all paper-printed [*] necessary to enable the [*] for [*], and [*] Software in a quantity equal to [*] of combined Silkworm 2400 and Silkworm [*] OEM product units that [*] or [*] be [*] by HP without [*] Software [*] and [*], whether such units are distributed [*] the Effective Date of this Amendment.

All Other Software License Fees. For the Term of this Agreement and any extension(s) thereof, Supplier will provide to HP [*] all [*] releases and upgrades of: [*] and upgrades (up to but not including version [*]); [*] Software; [*] Software; and [*] Software for use in conjunction with OEM products provided by Supplier. [*] Software will be released to HP at [*] upon [*] of such Software by Supplier for the Silkworm 2400 and [*] OEM Products. Supplier shall provide such copies and/or all required digital license keys of the Software listed in this Section [*] and [*] as necessary [*] HP's [*] distribution of Silkworm 2400 and [*] OEM Products.

Security Software. If or when this Software product is offered to any of [*], Supplier will [*] to HP at [*].

Internal-use Copies. [*] shall be due for copies of the Software used by HP for [*]

Software Delivery. All Software provided by Supplier under this Agreement shall be offered to HP [*]

Brocade [*] OEM Products and [*].

HP PART DESCRIPTION: [HP private-label name here]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Except as expressly set forth herein, the Agreement and each and every provision thereof shall continue in full force and effect.

IN WITNESS WHEREOF, the parties have caused this instrument to be executed by their duly authorized representatives on the dates indicated below.

BROCADE COMMUNICATIONS SYSTEMS,
INC.

HEWLETT-PACKARD COMPANY

By: /s/ Charles Smith

By: /s/ Don Kleinschnitz

Name: Charles Smith

Name: Don Kleinschnitz

Title: Vice President, Sales

Title: GM SNS

Date: April 26, 2001

Date: 5-22-01

[HEWLETT-PACKARD LOGO]

JANUARY 25, 2002

Brocade Communications Systems, Inc.
1745 Technology Drive
San Jose, CA. 95110

ATTENTION: Charlie Leeming

RE: OEM PURCHASE AGREEMENT BY AND BETWEEN HEWLETT-PACKARD COMPANY AND BROCADE COMMUNICATIONS SYSTEMS DATED JANUARY 28, 2000

Dr. Mr. Leeming:

The term of the OEM Purchase Agreement by and between Hewlett-Packard Company ("HP") and Brocade Communications Systems, Inc. ("Brocade") dated January 28, 2000 expires on or about January 28, 2002. HP and Brocade agree to extend the term of that agreement until January 28, 2003.

Please indicate your agreement with the above by having an authorized representative of Brocade sign this letter. A copy of the agreement should be sent by fax to Brian Tippens at (916) 785-3081 and the letter with your original signature should then be mailed to Brian.

Please do not hesitate to call Brian on (916) 785-0936 if you have any questions or concerns.

Very truly yours,

ACKNOWLEDGED AND AGREED

HEWLETT-PACKARD COMPANY

BROCADE COMMUNICATIONS SYSTEMS, INC.

By

By _____
(Authorized Representative)

Don Kleinshnitz
NSSO-SNS General Manager
January 27, 2002

Typed Name _____
Title _____
Date _____

OEM PURCHASE AGREEMENT

BY AND BETWEEN

HEWLETT-PACKARD COMPANY

AND

BROCADE COMMUNICATIONS SYSTEMS, INC.

OEM PURCHASE AGREEMENT

THIS AGREEMENT (the "Agreement") is entered into between HEWLETT-PACKARD COMPANY, a Delaware corporation ("HP") and BROCADE COMMUNICATIONS SYSTEMS, INC., a Delaware corporation, having its principal place of business at 1745 Technology Drive, San Jose, California 95110, and Brocade Communications Switzerland SarL., a corporation organized under the laws of Geneva, and having its principal place of business at 29-31 Route de l'Aéroport, CH-1205 Geneva, Switzerland, (collectively "Supplier") ("Supplier"), effective as of April 20, 2001, (the "Effective Date"). The parties hereby agree as follows:

1. SCOPE OF AGREEMENT

- 1.1 General. This Agreement specifies the terms and conditions under which Supplier will sell, license, and support the OEM Products listed in Exhibit (A) to this Agreement. The OEM Products are regarded as "Original Equipment Manufacturer" products that will either be sold separately or incorporated into HP Products for resale worldwide under HP's private label or, at HP's sole election, under Supplier's label, as set forth herein. The OEM Products and the HP Products will be marketed, serviced, and supported by HP's field organization and channel partners, subject to the marketing, service, and support obligations of Supplier pursuant to this Agreement.
- 1.2 Eligible Purchasers. This Agreement enables HP, HP Subsidiaries, and [*] to purchase OEM Products from Supplier under the terms of this Agreement or any subsequent Product Addendum. The terms and conditions of this Agreement will control and take precedence over any conflicting terms in a Product Addendum unless a Product Addendum specifically refers to and amends a term of this Agreement.
- 1.3 Term Of Agreement. This Agreement will commence as of the Effective Date and continue for a two-year period (the "Term"), unless terminated earlier under the terms of this Agreement. After the initial Term, this Agreement will continue automatically for additional one-year periods. This Agreement may be terminated at the end of the initial Term or at the end of any subsequent renewal period if one party provides the other at least [*] prior written notice of its intent to terminate.

2. DEFINITIONS

The following capitalized terms will have these meanings throughout this Agreement:

- 2.1 "Days" means business days.
- 2.2 "Delivery Date" means the date specified in an Order for the delivery of OEM Products by Supplier to the destination required under the Order.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 2.3 "Documentation" means the user and technical manuals and other documentation that Supplier will make available with the OEM Products.
- 2.4 "Eligible Purchasers" mean those parties authorized to purchase OEM Products under this Agreement as listed in Exhibit B attached hereto.
- 2.5 "E-Room" means that secure, password-protected web application accessible by Supplier and HP that indicates [*] of OEM Products between Supplier and HP under this Agreement.
- 2.6 "Failure" means an instance where the OEM Product does not conform to specifications in Exhibit (A) or contains a defect in workmanship, materials, or design that prevents the OEM Product from fully performing as set forth in Exhibit A.
- 2.7 "Forecast" means HP's estimate, submitted to Supplier in writing, of its stocking requirements for OEM Products (including, without limitation, Parts) over a [*] period or such other period designated by the parties.
- 2.8 " [*] " means HP's [*] and purchase of OEM Products from an [*] to [*] inventory and the event upon which title to such units passes to HP. [*] of OEM Product unit(s) is confirmed upon [*] to the [*] of [*] movement-type transaction indicating such unit [*].
- 2.9 "HP Products" means those products or systems that will incorporate or be distributed in conjunction with the OEM Products and that will be marketed and sold to end-user customers by HP and its distributors.
- 2.10 "HP Property" means all property, including without limitation, models, tools, equipment, copies of designs and documentation and other materials that may be furnished to Supplier by HP or on HP's behalf or separately paid for by HP for use by Supplier in connection with this Agreement.
- 2.11 "Intellectual Property Rights" means all rights in patents, copyrights, moral rights, trade secrets, mask works, Marks, and other similar rights.
- 2.12 "Lead Time" means the time between the date an Order is received by Supplier and the Delivery Date.
- 2.13 "Marks" means the trademarks, service marks, trademark and service mark applications, trade dress, trade names, logos, insignia, symbols, designs, or other marks identifying a party or its products.
- 2.14 "Noncomplying Product" means any OEM Product received by HP that does not comply with the [*] as set forth in Exhibit (A) or does not otherwise comply with the requirements of an accepted Order as set forth in Section 3.1 herein, and the provisions of this Agreement. Noncomplying Products include, without limitation, dead-on-arrival products.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 2.15 "OEM Products" means the products listed in Exhibit (A), all related Documentation, Software licenses and media, Parts, and other deliverables provided pursuant to this Agreement.
- 2.16 "Orders" means a written or electronic purchase order or release issued by HP to Supplier for purchase of the OEM Products.
- 2.17 "Parts" means the replacement parts (FRUs), components, consumables, or other products that are to be supplied under this Agreement or that may be supplied in conjunction with or as additions to the OEM Products.
- 2.18 "Product Addendum" means an addendum to this Agreement entered into between Supplier and an Eligible Purchaser naming additional OEM Products and product specific requirements in addition to those requirements specified in this Agreement.
- 2.19 "Shipment Date" means the date confirmed to HP by Supplier regarding a particular Order for the shipment of OEM Products by Supplier to the destination required under the Order.
- 2.20 " [*] " means those [*] as listed in Exhibit (B) to which Supplier shall deliver OEM Products as ordered by HP under this Agreement and more particularly in Exhibit (J) attached hereto.
- 2.21 "Software" means any software or firmware included, bundled, or licensed in conjunction with the OEM Products, as listed in Exhibit A. The Software described herein is licensed and not sold.
- 2.22 "Specifications" means the technical and functional requirements for the OEM Products as specified or referenced in Exhibit A or as agreed to in writing by the parties.
- 2.23 "Stocking Level" means the actual [*] inventory stocking level to be [*] at each designated [*] by Supplier for a given planning period which shall be equal to the then-current Forecast volume [*], subject to the limitation in Section 3.5 below.
- 2.24 "Subcontractor" means a third party listed in Exhibit B that may purchase OEM Products under the terms of this Agreement on behalf of HP.
- 2.25 "Subsidiary" means an entity controlled by or under common control with a party to this Agreement, through ownership or control of more than 50% of the voting power of the shares or other means of ownership or control, provided that such control continues to exist.
- 2.26 "Support" means ongoing maintenance and technical support for the OEM Products provided by Supplier to HP as more fully described in Exhibit D.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

2.27 "Technical Information" means Supplier's information and technology necessary to support OEM Products and to exercise any other rights provided under this Agreement.

3. ORDER, SHIPMENT, AND INVENTORY OF OEM PRODUCTS

3.1 Orders. Each delivery of OEM Products to [*] will be initiated by a non-binding blanket Order issued [*] to Supplier by HP. Each Order will include: (i) unit quantity; (ii) shipping destination; (iii) Delivery Date; and (iv) other instructions or requirements pertinent to the Order. HP may schedule regular intervals for deliveries by an appropriate Order setting forth the intervals. To the extent of any inconsistency between the terms of an Order and the terms of this Agreement, the terms specified in this Agreement will control and take precedence. Any additional terms contained in Orders or Supplier's Order acknowledgements shall not be binding unless accepted by the other party in writing. At the end of each month, Supplier will close each Order based on actual [*] of OEM Products from the [*]).

3.2 Order Acknowledgment. An Order will be deemed to have been placed as of the date of receipt of the Order by Supplier. Supplier will promptly confirm the receipt of an Order either electronically or by facsimile transmission within Forecasts and Lead Time requirements of this Agreement either electronically or by facsimile to HP within [*]. For Orders exceeding Forecast, Supplier will have [*] in which to reject the Order with respect to the excess. If an HP Order exceeds the Forecast or shortens the Lead Time, Supplier will use its reasonable efforts to fill such excess or accommodate such shorter Lead Time.

3.3 Emergency Orders. If HP deems it necessary, HP may order OEM Products by facsimile on an emergency basis ("Emergency Order") subject to the availability of such OEM Products in Supplier's inventory. Supplier will use its reasonable efforts to ship the Emergency Order to HP's designated Eligible Purchaser(s) immediately upon receipt of such Emergency Order by Supplier. Subject to HP's approval, HP will pay any additional expenses related to such Emergency Orders.

3.4 Forecasts. HP will provide a [*] rolling Forecast [*] of its projected Orders per [*], to be provided to Supplier between the [*] of the [*] applicable to such Forecast. Any quantities listed in any Forecast or other correspondence between the parties are only estimates made as an accommodation for planning purposes and do not constitute a commitment on HP's part to purchase such quantity. HP may, at its sole discretion, revise any such Forecasts, provided that such revisions occur at least [*] prior to the projected Order Shipment Date.

3.5 Lead Time. Lead Time for each OEM Product within the then-current Forecast unit volume will be no more than [*] without prior written consent from HP. Lead Time for FRU products within the then-current Forecast unit volume from Supplier to the designated HP global service support organization will be no

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

more than [*].

- 3.6 Inventory Requirements. Subject to the terms and conditions of this Article (3), Supplier will carry an inventory of the OEM Products sufficient to accommodate HP's Order requirements as defined by the most current HP Forecast. Supplier will [*] inventory [*] to [*] the [*] outlined in Order changes. If this inventory is depleted, Supplier will replenish the inventory as soon as reasonable after depletion. Additionally, Supplier will [*] its [*] of OEM Products in inventory to [*] the [*] of inventory for each [*]. Supplier will ship ordered OEM Products to HP-designated [*]. HP may request change drop locations.
- 3.7 Stocking Level Requirements. Supplier shall deliver the then-current Stocking Level volumes to the respective [*] locations as specified in the then-current Forecast by the [*] for which the current Forecast shall apply (or the [*] as specified in advance by HP). Supplier may make advance shipments of OEM Products or ship excess units to the [*].
- 3.8 Product Supply Assurance. Supplier agrees that, during the Term of the Agreement and specifically in the event of any allocated OEM Product status initiated or experienced by Supplier, Supplier will [*] order fulfillment and shipping [*] that given to [*] OEM Products [*] basis between [*]
- 3.9 Inactive Inventory. (a) In the event any OEM Product unit(s) shall remain within an [*] for greater than [*], then, upon written notification from Supplier to HP of Supplier's request to release such inactive units from the [*] inventory, HP will, within [*] or receipt of Supplier's notice, elect to either purchase such inactive units through [*] of such units from the [*], or release the inactive units to Supplier for Supplier's recall of the units from the [*] inventory, at Supplier's option.
- (b) In the event HP does not confirm its intent to purchase such units within [*] of receipt of Supplier's notice, such units shall be deemed released by HP for [*] by Supplier from the [*].
- (c) [*] by Supplier of OEM Product units released by HP from the [*] under this Section shall be at [*]
- (d) In the event any OEM Product unit(s) remain within the respective [*] greater than [*] due to lack of [*] will bear [*] costs of upgrading such inventory units to any subsequent Software revisions or upgrades if, in [*] determination, such upgrade is required.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 3.10 Order Changes. HP may, [*], postpone, decrease, or increase any Order within Forecast, subject to the following Order increase limitations: [*] permissible [*] in Forecast [*] permissible [*] in Forecast [*] permissible [*] in Forecast. In the event HP increases any Order, Supplier will use reasonable efforts to fulfill such Order for the Delivery Date requested by HP.
- 3.11 Shipment Requirements. All Orders are required to be shipped complete. Supplier will give HP [*] notice if it knows or reasonably anticipates that it will not meet a Delivery Date or that only a portion of the OEM Products will be available for shipment to meet a Delivery Date. For partial shipments, Supplier will ship the available OEM Products unless directed by HP to reschedule shipment. If Supplier ships any OEM Product by a method other than as specified in the corresponding Order, [*] any [*] in the [*] of freight. Upon mutual agreement by the parties, HP may utilize drop shipment options to any HP-designated delivery destination in the same manner as delivered to an inventory location unless otherwise mutually agreed by the parties. If HP designates a drop shipment location outside the country in which the Order is placed, [*] associated with the shipment.
- 3.12 Meeting Delivery Dates. If due to Supplier's failure to make a timely shipment, the specified method of transportation would not permit Supplier to meet the Delivery Date, the OEM Products affected will be shipped by air transportation or other expedient means acceptable to HP. [*] for any [*] in the freight [*] over that which [*] by the specified method of transportation.
- 3.13 Title And Risk Of Loss. Title to OEM Product hardware and media ordered under this Agreement and risk of loss or damage for each OEM Product unit will pass from Supplier to HP [*] as more fully described in Exhibit (J) attached hereto.
- 3.14 Packing List. Each delivery of OEM Products to HP must include a packing list that contains at least:
 (a) The Order number and the HP part number;
 (b) The quantity of OEM Products or Parts shipped; and,
 (c) The date of shipment.
- 3.15 Packaging. Supplier must preserve, package, handle, and pack all OEM Products as specified in Exhibit A-3.
- 3.16 Responsibility For [*]. [*] will be [*] for [*] due to its [*] to [*] preserve, package, handle, or pack OEM Products in accordance with Exhibit A. In order to assert a claim against [*] under the provisions of this Section 3.16, [*] be required to first assert any claims for such loss or damage against the common carrier involved. Further, [*] be [*] for [*] due to a release of chemicals or other hazardous materials to the environment [*] release of the corresponding

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

OEM Product to the designated carrier.

4. PRICES AND PAYMENT TERMS

- 4.1 OEM Product Prices. Supplier's prices for the OEM Products and Parts are listed in Exhibit C, payable in U.S. currency unless otherwise agreed, and may not be increased without HP's consent. Supplier and HP agree to review OEM Product prices [*].
- 4.2 Changed Prices. Subject to the terms and conditions of Section 4.4 below, if during the Term and any extensions thereof, changed prices or price formulas are put in effect by mutual agreement of HP and Supplier, or reduced prices or price formulas are otherwise put in effect by Supplier, then such prices or price formulas (if resulting in [*] than the [*]) will apply to all Orders accepted by Supplier after the effective date of such prices or price formulas and to all unshipped Orders.
- 4.3 Payment Procedure. Payment for OEM Products will be [*] of each OEM Product unit(s) from an [*]. Except as otherwise provided in this Agreement, associated freight expenses and duties will be paid directly by [*] related to or payments for unordered or Noncomplying Products provided that HP does not retain such unordered or Noncomplying Product(s).
- 4.4 [*] Warranty. If during the Term or any extensions thereof, Supplier provides [*] of OEM Products or newer OEM Products as set forth in Section 10.3 herein [*] Supplier's most recent [*], then Supplier agrees to [*] to HP [*] provided to the [*] Supplier agrees to fulfill its obligations in this Section in good faith and further agrees that it will not create any OEM Product, purchasing programs, pricing formulas, or other conditions that serve to deny HP the [*] In addition, HP may credit any amounts due under this Agreement against future invoices.
- 4.5 Sales Taxes And Duties. Prices are exclusive of all taxes or duties imposed after [*] of the respective OEM Product units (other than taxes levied on Supplier's income) that Supplier may be required to collect or pay upon shipment of the OEM Products. [*] shall be responsible for all such taxes or duties imposed on OEM Products before [*]. Any taxes or duties applicable to HP under this Section 4.5 must appear as a separate item on Supplier's invoice. [*] agrees to pay such taxes or duties unless [*] is exempt from such taxes or duties. Where applicable, [*] will provide [*] with an exemption resale certificate.

5. NONCOMPLYING PRODUCTS

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 5.1 Repair Or Replacement. HP's acceptance of each OEM Product unit shall occur upon [*] of such unit(s) unless HP notifies Supplier in writing sent by mail, facsimile, or other electronic means within [*] after [*] that such OEM Product unit is a Noncomplying Product. Supplier shall repair or replace (at Supplier's sole expense) each such Noncomplying Product pursuant to the warranty provisions under Article (9) herein. HP may elect [*], subject to the provisions of Article 18 below, to return a Noncomplying Product for replacement or repair at [*]. Determination of whether to repair or replace such Noncomplying Products shall be at Supplier's sole option. Additionally, HP may return for repair or replacement an entire lot of OEM Products if a tested sample (consisting of not less than [*] of that lot contains greater than [*] Noncomplying Products. In the event of an overshipment, HP may elect to keep the additional units, subject to the payment procedures in Section 4.3.
- 5.2 Replacement and Repair Period. Supplier will return the replacement or repaired OEM Products as soon as possible but in no event later than [*] after receipt of the Noncomplying Product from HP. Supplier's opportunity to cure any failure to meet such deadline, pursuant to Article 18 below, will apply to [*] during the Term.

6. RETURN OF PRODUCTS

- 6.1 Return Materials Authorization. All OEM Products returned by HP to Supplier must be accompanied by a Return Materials Authorization ("RMA"). Supplier will issue an RMA for OEM Products for which HP has verified Failure [*] of HP's request.
- 6.2 Return Charges. All Noncomplying Products returned by HP to Supplier within the respective warranty period for each OEM Product, and all replacement or repaired OEM Products shipped by Supplier to HP to replace Noncomplying Products will [*].
- 6.3 Duty To Remove Marks Or Destroy Noncomplying Products. Supplier agrees not to sell, transfer, distribute, or otherwise convey any part, component, product, or service bearing or incorporating HP Marks, part numbers, or other identifiers, including any HP packaging, copyrights, or code (that are human-readable and physically appear thereon) to any party other than to Eligible Purchasers. Supplier will remove from all rejected, returned, or unpurchased OEM Products any such HP Marks or identifiers, even if such removal would require destruction of the OEM Products. Supplier further agrees not to represent that such OEM Products that are Noncomplying Products are built for HP or to HP specifications. Supplier will defend and indemnify HP against any claims, losses, liabilities, costs, or expenses that HP may incur as a result of Supplier's breach of its obligations under this Section 6.3.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

7. ENGINEERING PROCESS OR DESIGN CHANGES

- 7.1 Supplier Proposed Changes. Supplier will not, without the prior written consent of HP (which such consent shall not be unreasonably withheld), make or incorporate in OEM Products any of the following changes (collectively, "Engineering Changes"):
- (1) [*];
 - (2) [*], or;
 - (3) [*] affecting: (a) the [*] form, fit, or function [*] that affects form, fit, or function; and (b) the [*] of OEM Products.
- 7.2 Notice Of Proposed Change. Supplier will give HP notice of any proposed Engineering Change, and will provide [*] and other appropriate information as specified by HP at least [*] prior to the first scheduled release of any OEM products involving a change to the respective firmware that would affect OEM Product form, fit, or function, and at least [*] prior to the first proposed shipment of any OEM Products involving any other Engineering Change. Regardless of whether HP approves a proposed Engineering Change, Lead Time will not be changed except as provided in Section 3.4 above.
- 7.3 Request for Enhancement. HP proposed changes and enhancement requests will be reviewed, as appropriate, by the Software Steering Committee and/or the Hardware Engineering core teams of Supplier. Where feasible and mutually agreed by HP and Supplier, such changes will be implemented in the [*] or as otherwise specifically agreed.
- 7.4 HP Proposed Changes. HP may change HP-supplied drawings, designs, or Specifications at any time prior to manufacture of corresponding released OEM Products. Any such change will be [*]. and [*]. If any such change reasonably and directly [*] of OEM Products, an [*] will be made provided that Supplier makes a written claim for an [*] within [*] from the date HP gives notice to Supplier of the change and HP agrees in writing to the [*]
- 7.5 Option To Terminate. If the parties are unable to agree, acting reasonably and in good faith, upon an adjustment pursuant to Section 7.3 above, HP may [*] terminate this Agreement as to any OEM Products affected, subject to the terms and conditions of Article (22) herein.
- 7.6 Safety Standard Changes. Supplier will promptly give notice to HP if any upgrade, substitution, or other change to an OEM Product is required to make that product meet applicable safety standards or other governmental statutes, rules,

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

orders, or regulations, even those that are not defined as Engineering Changes in Section 7.1 above. All affected OEM Products already purchased by HP may, at HP's election, either be returned to Supplier for upgrade to current revisions or upgraded by Supplier or HP in the field pursuant to the procedures outlined in Section 10.4 below. If an OEM Product meets applicable safety standards and other governmental requirements at the time of manufacture, HP and Supplier will [*] the [*] of any subsequent upgrade, substitution, or other required change required in an [*] based on good faith discussions between the parties. If such discussions render no [*], the parties may either mutually agree to escalate the matter to their respective vice presidents or general managers, as applicable, or in the alternative, [*] the [*].

7.7 Technical Cooperation. Subject to the confidentiality provisions in Article 19 below, during the term of the Agreement, the parties will discuss architecture and explore the possibilities for technically integrating Supplier and HP products. Each party will designate a technical representative to lead these discussions as well as to address other technical issues relating to the product enhancements and [*]. Supplier agrees to share and review with HP engineers the following for current and future products (which such information shall not be unreasonably withheld or delayed):

(a) [*];

(b) [*] information necessary for HP to (i) understand the related architecture and to develop test suites for resolution of potential problems, and (ii) to understand the implications of such potential problems with the ability to implement meshed configurations efficiently;

(c) [*] information necessary for HP to implement efficient meshed configurations free of any significant performance problems;

(d) [*] and [*] for such items, and;

(e) [*] and [*].

8. QUALITY

8.1 Quality Programs. Supplier agrees to maintain an objective quality program for all OEM Products. Supplier's program will be in accordance with the current version of HP's Supplier Quality System as specified in Exhibit H and if applicable, any additional or substitute quality requirements agreed to by the parties in writing. Supplier will, upon HP's request, provide to HP copies of Supplier's program and supporting test documentation.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

8.2 HP's Right To [*]. Supplier grants HP the right to [*] hours) at Supplier's [*] and all associated [*] may be [*] any time during the Term or any extensions thereof. HP's [*] may be for any reason [*] related to this Agreement, [*]. HP's right of [*] will apply as well to [*] of Supplier. Supplier will inform [*] of HP's right to [*], and, if necessary, use all [*] such rights for HP.

9. WARRANTIES

9.1 Product Warranties. Supplier warrants to HP that, for a period of [*] from the date of [*] for each hardware OEM Product unit (excluding [*]) and [*] for each Software and [*] hardware OEM Product, that all OEM Products under this Agreement will:

- (1) Be manufactured, processed, and assembled by Supplier or by companies under Supplier's direction;
- (2) Conform to the then-current Specifications and other criteria referred to in this Agreement or agreed to by the parties in writing;
- (3) Be new, except as otherwise provided by the parties;
- (4) Conform strictly to the requirements of all Orders as set forth under the terms and conditions of this Agreement;
- (5) Be free from defects in design, material, and workmanship;
- (6) Be free and clear of all liens, encumbrances, restrictions, and other claims against title or ownership;
- (7) Be "Year 2000 Compliant." Year 2000 Compliant products will perform without error, loss of data or loss of functionality arising from any failure to process, calculate, compare or sequence data accurately. In addition, Year 2000 Compliant products will not cause any associated products or systems in which they may be used to fail in any of the ways described above. This Year 2000 Compliance Warranty will remain in effect through December 31, 2000, notwithstanding any other warranty period specified in this Agreement;
- (8) Subject to the terms and conditions of Article (14) herein, not to Supplier's reasonable knowledge, violate or infringe any third party Intellectual Property Rights and Supplier warrants that it is not aware of any facts upon which such claim could be made. If Supplier learns of any claim or any facts upon which claim could be made, it will [*] notify HP of such information.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 9.2 Survival Of Warranties. All warranties specified above will survive any inspection, delivery, acceptance, or payment by HP and be in effect for the applicable warranty period for each OEM Product.
- 9.3 Epidemic Failure Warranty. In addition to the warranties specified above, Supplier warrants to HP all OEM Products at the FRU level and system (unit) level against epidemic failure for a period of [*] after [*] of such OEM Product unit. An epidemic failure means:
- (a) unit failures that (i) are caused by the same component failure or defect, provided that such failure or defect is attributable to Supplier, and (ii) occur at a rate equal to or less than [*] (as listed in Exhibit (H), Section 4.1), over a [*], or;
- (b) the occurrence of more than [*] classified as a [*] or higher safety incident defined as (i) a marginal condition that is likely to produce only minor bodily injury or property damage and is likely to occur after a [*] event, or (ii) a noncompliance event involving a safety-related standard, license, or testing agency evaluation, or;
- (c) any known problem which, in HP's reasonable opinion subject to Supplier's concurrence (which such concurrence shall not be unreasonably withheld or delayed) creates a significant risk to the health or safety of individuals who operate the OEM Product or to the continuous business operations of companies or organizations that employ the OEM Product for an intended or reasonably foreseeable use.
- 9.4 DISCLAIMER. EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, SUPPLIER EXPRESSLY DISCLAIMS ALL OTHER REPRESENTATIONS, WARRANTIES, OR CONDITIONS, EITHER EXPRESS OR IMPLIED, REGARDING ANY OEM PRODUCTS OR REGARDING THEIR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

10. SUPPORT SERVICES

- 10.1 General. Supplier will provide trained HP support personnel with Support for the OEM Products as specified in Exhibit D. Supplier will maintain such number of qualified personnel as is necessary to provide timely and knowledgeable maintenance and support service in accordance with the terms and conditions of Exhibit D. Supplier warrants that all Support will be provided in a professional and workmanlike manner. HP will provide direct maintenance and support to HP's customers with respect to the use of the OEM Product as distributed with HP Products. Supplier and HP will maintain and support each OEM Product distributed by HP for [*] after the date of last Shipment

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS

Date by Supplier to an [*] of each OEM Product unit. HP acknowledges that Supplier may independently offer and provide support services to OEM Product customers; however, in no event may Supplier use HP Confidential Information or HP Property to direct or provide such support without HP's prior consent. Response times and problem classification for the OEM Products are as set forth in Exhibit D.

- 10.2 New HP Products. Upon request by HP, Supplier will use reasonable efforts to provide HP with the OEM Products adapted for use with new releases of HP Products [*] and [*], if any, to be negotiated by the parties, provided that HP makes available to Supplier such HP Property as may be reasonably necessary for Supplier to develop any adaptation.
- 10.3 New Product Supply [*]. Supplier agrees that, during the term of the Agreement and any extensions thereof, any such newer products will be made available to HP for shipment [*] shipment date made [*] by Supplier [*] with [*] OEM Products [*] most recent [*], and shall be made available [*] in [*] to [*] all HP Orders within Forecast designating such newer products. In the event of any allocated OEM product status initiated by Supplier, Supplier will promptly give all HP Orders [*] that given [*] OEM Products [*] Supplier's most recent [*], with such [*] to be made on a [*] basis [*] HP and [*].
- 10.4 HP Property. HP may, at HP's sole election, provide to Supplier HP Property under the terms of an HP Equipment Loan Agreement attached as Exhibit E to this Agreement, solely for use in Supplier's manufacturing, testing, adapting and supporting the OEM Products. All HP Property will be clearly segregated from Supplier's property and identified as the sole property of HP. HP Property may not be transferred, assigned, loaned or otherwise encumbered in any way. HP Property may be provided to third parties for fulfillment of Supplier's obligations hereunder only upon HP's prior written consent. HP property will be returned to HP, at [*], upon termination of this Agreement.
- 10.5 Substitute Products. If Supplier develops any generally available products that are to replace the OEM Product(s) or that are the same or substantially similar to the OEM Products available under this Agreement, HP will have the right to substitute the newer products at [*] as the substantially similar OEM Products for all subsequent purchases under this Agreement. Such substitute products must be compatible with the current version of the OEM Products.
- 10.6 Failure Rate. Notwithstanding that the warranties given in Section 9.1 above apply to 100% of the hardware components of OEM Products, Supplier and HP acknowledge that a failure rate equivalent to the rates as measured [*] set forth in Section 4.1 of Exhibit (H) is expected. If the actual failure rate for OEM Products exceeds this expected rate, Supplier will provide

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

additional engineering and technical support needed to bring the actual failure rate within the specified failure rate.

10.7 Class Failure Remedies. Upon the occurrence of any of the following events: (i) a failure rate exceeding the rate specified in Section 10.6 above; (ii) an epidemic failure as described in Section 9.3 above; or (iii) a safety standard change under Section 7.5 above (each referred to as a "Class Failure"), HP will have the following additional remedies for a [*] after [*] of such OEM Product unit:

- (1) In the event of a Class Failure, Supplier will use its reasonable efforts to provide an initial root cause analysis, failure analysis, and corrective action plan to HP no later than [*] following the receipt of the Class Failure part. HP will make available such information and assistance as reasonably required to allow Supplier to conduct its root cause analysis and provide its corrective action plan.
- (2) If, after review of the root cause analysis and corrective action plan, HP determines in its reasonable opinion that the Class Failure necessitates a field stocking recall or customer based recall or retrofit, HP may then elect to have the OEM Products: (i) returned to Supplier for repair or replacement; (ii) repaired or replaced by Supplier in the field; or (iii) repaired or replaced by HP in the field, including products in distributor inventory and HP's installed base. If HP chooses to perform a field repair, Supplier will provide the appropriate replacement OEM Products, spares, or upgrades [*] to HP and will, within [*] after completion of the recalls or retrofits, reimburse HP for [*] in performing such field repair. Supplier will give such OEM products, spares, or upgrades the [*].
- (3) Except as provided in Section 7.6 above regarding safety standard changes, Supplier will, [*] after completion of the recalls or retrofits, reimburse HP for [*] in performing such services.

10.8 Survival Of Support Obligations. Supplier's maintenance and support obligations specified in this Article 10, and in the Support Terms in Exhibit D will run for the Term and any additional periods under Section 1.3 above and will continue for a period of [*] after the date of last Shipment Date by Supplier to an [*] of each OEM Product unit. This obligation includes, without limitation, making necessary Parts available to HP as further provided in the Support Terms.

11. OBSOLESCENCE AND MANUFACTURING RIGHTS

11.1 Lifetime Buy Rights. Supplier acknowledges its obligation to manufacture, supply and support the OEM Products without interruption for the Term. If, however,

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

after the [*] of shipment of such products, Supplier seeks to discontinue the supply or support of any OEM Product (a "Discontinued Product"), Supplier will give notice to HP no less than [*] in advance of the last date the Discontinued Product can be ordered. After receipt of notice of discontinuance, HP may place orders for any demand during the [*] of such notice for delivery of Discontinued Products prior to the end of the notice period. To the extent that such orders exceed HP's previous Forecast for such Discontinued Products, the orders shall be [*]. Supplier shall accept only forecasted orders in the [*] of the stated notice period, and such orders shall be non-cancelable. All shipments must be completed prior to the end-of-life date stated in such notice by Supplier to HP above. In addition, during such notice period, Supplier shall have the right, in its sole discretion, to [*] for OEM Products from HP at the time such Orders are submitted.

- 11.2 Alternative Supply Rights. In the event HP becomes entitled to terminate this Agreement or any portion thereof in accordance with Article (18) hereunder, then Supplier shall [*] purchase orders from HP for such OEM Products at [*] and [*] until Supplier can demonstrate to [*] that its performance is no longer impaired. This Section is not intended to grant HP [*] a royalty-free license to use, manufacture, sell or import the Products. Instead, it is intended to permit HP to directly order Products [*] in limited circumstances; under such circumstances, HP will directly [*] the [*] set forth hereunder for the OEM Products ordered pursuant to this Section.
- 11.3 Consulting Services. In support of Technical Information or other services provided to HP herein, Supplier will, upon HP's request, provide additional consulting services at the rate of the lesser of either [*], or that rate [*] as mutually agreed.

12. TRAINING

- 12.1 Technical Training. Supplier will provide to HP [*] technical training classes for HP technical personnel. The schedule for such classes will be as mutually agreed in writing by the parties, with the first of such training provided by Supplier no later than May 15, 2001. Each class provided by Supplier under this Section will accommodate at least [*] HP personnel, and will be made available at Supplier's designated training site in San Jose, California. At HP's sole election and upon not less than [*] advance notice, after May 15, 2001, to Supplier, Supplier will provide [*] to HP at HP's Roseville, California site. All such training provided by Supplier will be [*] to HP except for travel expenses of HP personnel. Supplier will maintain a designated training contact for HP learning products personnel, and will provide technical support to an HP trainer for the [*] classes taught by HP utilizing

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

the training provided hereunder by Supplier. HP may further request and Supplier will provide, for up to [*] HP technical personnel, additional training [*] as reasonably necessary to inform HP personnel of each upgraded, enhanced, or new version of the OEM Products. Other training (including without limitation Supplier's Educational Services technical training) will be provided upon mutually agreed terms and conditions.

- 12.2 Presales Training. Supplier will provide to HP no later than May 15, 2001, presales training at Supplier's San Jose, California facility sufficient to cover up to [*] HP trainers in order to allow HP to become fully familiar with the OEM Product and its market. Such training will be [*] to HP. HP may further request and Supplier will provide additional training [*] to inform up to [*] HP personnel of each upgraded, enhanced, or new version of the OEM Products.
- 12.3 HP's Rights in Training Classes and Materials. Subject to the provisions of Article (19) herein, HP may [*] use, reproduce, display, and perform, either internally or for HP's customers, all training classes, methods, and materials supplied or developed by Supplier under this Agreement (excluding Supplier's Educational Services classes, methods, and materials). None of the training materials provided [*] by Supplier to HP under this Article (12) may be offered for resale by HP to HP's Customers. Supplier will provide such presales training materials to HP no later than May 1, 2001, and technical training materials no later than May 15, 2001.

13. MARKETING AND LICENSING

- 13.1 Marketing and Distribution. HP will have the authority to market the OEM Products and the HP Products containing the OEM Products to the extent it deems appropriate and in its sole discretion. Without limiting the generality of the foregoing sentence, nothing in this Agreement shall be construed or interpreted to place a "best efforts" obligation upon HP with respect to marketing or distributing the HP Products or OEM Products or to preclude HP from independently developing, purchasing, licensing, or marketing any product which performs the same or similar function as the OEM Products. HP will have the right to use its own business and license terms for all marketing and distribution of the OEM Products and HP Products. HP will take all reasonable steps to describe OEM Products accurately.
- 13.2 Distribution Rights. During the Term of this Agreement and any extension(s) thereof, Supplier hereby agrees not to sell directly to End Users the OEM Products or any other OEM products that HP has distributed, provided that nothing in this Section 13.2 shall be construed to prevent Supplier from selling or distributing through or to Supplier's current and future indirect channels of distribution that are: (i) resellers, service bureaus, third party distributors, or third party OEMs (not owned or controlled in whole or in part by Supplier) which in turn sell or distribute the OEM Products to End Users, or; (ii) any End User to whom Supplier has directly sold OEM Products or directly related precursor

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

products prior to the Effective Date. For purposes of this Section 13.2, an "End User" is any person or entity who purchases the OEM Product solely for its own use and not for reselling purposes.

- 13.3 Sales and Marketing Activity. During the Term of this Agreement and any extension(s) thereof, Supplier shall, upon request of HP, deliver to HP all sales, training, product, and marketing collateral intended by Supplier for use in the distribution, sale, or marketing of the OEM Products. All such collateral content intended by Supplier for use with the OEM Products shall be developed by Supplier and provided to HP in electronic form. All such collateral and related sales activity from or by Supplier, its employees, agents, and subcontractors (excluding Supplier's current and future indirect channels of distribution that are resellers, service bureaus, third party distributors, or third party OEMs (any of which who are neither owned nor controlled in whole or in part by Supplier) which in turn sell or distribute the OEM Products to End Users), which is intended by Supplier for current [*] shall be first coordinated through the [*] contact as listed in Exhibit (G) attached hereto and subject to HP's prior written approval, at HP's sole discretion, before Supplier may [*] such collateral or sales activity to [*].
- 13.4 Software License. Supplier hereby grants to HP, under Supplier's intellectual property rights, a non-exclusive, worldwide, license to use, display, distribute, import, and disclose the Software both separately and in combination, in object code format for use in conjunction with the support and distribution of OEM Products or associated HP Products. Such use limitation will not apply in the case of [*] purposes. The license grant under this Section 13.4 includes the right of HP to sublicense distributors, resellers, and other third parties to achieve the foregoing. The rights granted to HP under this Section 13.4 also include the right of End Users to continue use of the Software in conjunction with the operation of the OEM Products so long as they are not in breach of the HP End-User license agreement issued with the particular OEM Product(s), and HP shall retain the license set forth above for the sole purpose of assisting End-Users with the maintenance and support of the OEM Products.
- 13.5 Device Object License. Supplier will use all reasonable efforts to develop, test, and distribute to HP (at Supplier's sole expense) a device object applicable to HP's OpenView Storage software product according to the specifications and requirements set forth in HP OpenView Storage Area Manager Developer's Guide, Edition 1200, as referenced in Exhibit (A-6) attached hereto. Supplier hereby grants to HP, under Supplier's intellectual property rights, a non-exclusive, worldwide license to use, reproduce, display, translate, import, disclose, distribute, modify and prepare derivative works or compilations of such device object as developed by Supplier, for use with OEM Products and HP Products. These rights are exercisable in any medium. Such license will include the right of HP to sublicense distributors, resellers, and other third parties to achieve the foregoing.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- 13.6 License to the Documentation. Supplier hereby grants to HP, under Supplier's intellectual property rights, a non-exclusive, worldwide license to [*] of the [*] and [*] based upon the [*] for use in conjunction with the support and distribution of Software. These rights are exercisable in [*]. Such license will include the right of HP to sublicense distributors, resellers, and other third parties to achieve the foregoing. The right to [*] is granted solely for the purposes of [*] of more than one Software, condensing [*] on, and formatting and [*] for user accessibility. The rights granted to HP under this Section 13.6 are subject to the payment obligations as generally set forth in Article (4) above and more particularly in Exhibit (C) attached hereto provided, however, that (a) End-Users shall be permitted [*] of the [*] in conjunction with the operation of the OEM Products so long as they are not in breach of the HP End-User license agreement issued with the particular OEM Product(s), and (b) HP shall retain the license set forth above for the purpose of assisting End-Users with the maintenance and support of the OEM Products.
- 13.7 License to [*]. Supplier hereby grants to HP, under Supplier's intellectual property rights, a non-exclusive, worldwide license to [*] if any, and to [*] solely in connection with HP's marketing and support of the Software and training with respect to the Software. Such license will include the right of HP to [*] to achieve the foregoing. The rights granted to HP under this Section 13.7 are subject to Supplier's right to review and approve (which such approval shall not be unreasonably withheld [*]) any [*] submitted by HP (excluding HP's standard then-current trademarks, servicemarks, and logos), and the payment obligations as generally set forth in Article (4) above and more particularly in Exhibit (C) attached hereto.
- 13.8 Restrictions. HP will not decompile, reverse engineer, disassemble, or otherwise modify any Software without written authorization from Supplier, except as permitted by law.
- 13.9 Localized Versions. The licenses granted hereunder with respect to the Software and associated Documentation will include all localized versions thereof available from Supplier. In the event HP reasonably requires a localized version of the Software, then Supplier agrees to negotiate in good faith the commercial terms and conditions under which such localized version would be produced for HP. All of the licensing terms for such localized version would be consistent with this Agreement.
- 13.10 Limited Right of Sublicense and License. The parties expressly agree that no right of sublicense to the Software is hereby granted under this Agreement by Supplier to HP except for the right of HP to sublicense the Documentation and object code

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

of the Software directly to End-User Customers. Based on Supplier's representations herein, HP agrees that Supplier is the owner of the Software and Documentation contained in the OEM Products.

- 13.11 Localized Software. The licenses granted hereunder for the Software and Documentation shall include any localized version(s) thereof which Supplier publishes or makes generally available during the Term of this Agreement and any extension(s) thereof.
- 13.12 End User License Terms. Supplier hereby grants to HP the right to use and HP will use its then-current standard form software license terms for marketing and licensing Software under this Agreement. Such terms will be substantially in the form of that as set forth in Exhibit (I) attached hereto.
- 13.13 No Rights In Marks. Except as otherwise specified in this Agreement, nothing in this Agreement should be construed to grant either party any rights in the Marks of the other party. HP and Supplier acknowledge, however, that HP may use the name of Supplier and the name of the OEM Products in advertising and marketing the OEM Products or the HP Products. The OEM Products will be affixed with copyright notices sufficient to give notice as to the rights of the parties in their respective products.
- 13.14 HP Marks. Supplier will ensure that the OEM Products contain the HP Marks, serial number, format, and packaging specified by HP and conforming to the HP specifications as set forth in Exhibit A. Except as provided herein, Supplier will have no other right or license in any HP Marks.

14. INTELLECTUAL PROPERTY PROTECTION

- 14.1 Supplier's Duty To Defend. Except as provided in Section 14.4 below and provided that HP has complied with the provisions of Section 14.2 below, Supplier will defend and hold harmless HP and its Subsidiaries, subcontractors, and customers from any claim that any OEM Product, any combination of an OEM Product with an HP Product (to the extent damages asserted from such claim(s) are attributable to Supplier or the OEM Products), any Software, Documentation or a Supplier Mark, or any product provided as part of Supplier's Support services constitutes an unauthorized use or infringement of any third party's Intellectual Property Rights. Supplier will pay [*] incurred by HP, its Subsidiaries, subcontractors or customers and will pay [*] with respect to any such claim or agreed to in any settlement of that claim.
- 14.2 HP's Duty To Notify. HP will give Supplier prompt notice of any such claim or action, and will give Supplier the authority, information, and reasonable assistance (at Supplier's expense) necessary to defend. If Supplier does not diligently pursue resolution of the claim nor provide HP with reasonable assurances that it will diligently pursue resolution, then HP may, without in any way limiting its other rights and remedies, defend the claim.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

14.3 Remedies For Infringing Products. If the use or combination of any product provided hereunder is enjoined (the "Infringing Product"), Supplier will, [*] either:

- (1) Procure for HP and its customers the right to continue using or combining the Infringing Product; or,
- (2) Replace the Infringing Product with a non-infringing product of equivalent function and performance; or,
- (3) Modify the Infringing Product to be non-infringing, without detracting from function or performance.

14.4 Limitations. Supplier will be relieved of its indemnification obligations under this Article 14 to the extent that the claim arises solely and directly from Supplier's compliance with an HP Specification provided that all implementations of that Specification constitute an unauthorized use or infringement of a third party Intellectual Property Right.

15. COUNTRY OF MANUFACTURE AND [*]

15.1 Country Of Origin Certification. Upon HP's request, Supplier will provide HP with an appropriate certification stating the country of origin for OEM Products, sufficient to satisfy the requirements of the customs authorities of the country of receipt and any applicable export licensing regulations, including those of the United States.

15.2 Country Of Origin Marking. Supplier will mark each OEM Product, or the container if there is no room on the OEM Product, with the country of origin. Supplier will, in marking OEM Products, comply with the requirements of the customs authorities of the country of receipt.

15.3 [*]. If OEM Products delivered under this Agreement are imported, Supplier will when possible allow HP to be the [*]. If HP is not the [*] and Supplier obtains [*] rights to OEM Products, Supplier will, upon HP's request, provide HP with documents required by the [*] of the [*] of receipt to prove [*] and to transfer [*] rights to HP.

16. GOVERNMENTAL COMPLIANCE

16.1 Duty to Comply. The parties shall in the performance of this Agreement comply with all applicable laws, executive orders, regulations, ordinances, rules, proclamations, demands, and requisitions of all applicable state, local, national, or other governmental authority which may now or hereafter govern performance

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

hereunder including, without limitation, all laws, executive orders, regulations, ordinances, rules, and proclamations regarding Equal Employment Opportunity, the exporting of technology, and withholding for income taxes.

16.2 Procurement Regulations. The Software is "commercial computer software" as defined in the applicable provisions of the Federal Acquisition Regulation (the "FAR") and supplements thereto, including the Department of Defense ("DoD") FAR Supplements (the "DFARS"). The parties acknowledge that the Software was developed entirely at private expense and that no part of the Software was first produced in the performance of a Government contract. If HP supplies the Software to a U.S. Government agency, in accordance with FAR 12.212 and its successors or DFARS 227.7202 and its successors, as applicable, HP shall license the Software to the Government subject to the terms of this Agreement.

16.3 Ozone Depleting Substances. Supplier hereby certifies that no OEM Product nor any component of any OEM Product:

- (1) Contains any "Class 1 Substance" or "Class 2 Substance", as those terms are defined in 42 USC Section 7671 and implementing regulations of the United States Environmental Protection Agency at 40 CFR Part 82, as now in existence or hereafter amended; or,
- (2) Has been manufactured with a process that uses any Class 1 or Class 2 Substance within the meaning of 42 USC Section 7671 and implementing regulations of the United States Environmental Protection Agency at 40 CFR Part 82, as now in existence or hereafter amended.

17. FORCE MAJEURE EVENTS

17.1 Delaying Causes. Subject to the provisions of this Article 17, Supplier will not be liable for any delay in performance under this Agreement caused by any "act of God" or other cause beyond Supplier's control and without Supplier's fault or negligence (a "delaying cause"). Notwithstanding the above, Supplier will not be relieved of any liability for any delay or failure to perform its defense obligations with respect to third party Intellectual Property Rights or furnish remedies for Infringing Products as described in Article 14 above.

17.2 HP Option. Supplier will immediately give HP notice of any delaying cause and its best estimate of the expected duration of such cause. In the event of a delaying cause which continues for a period of [*], HP may act in [*] to

- (1) Terminate this Agreement or any part hereof as to OEM Products not shipped or,
- (2) Suspend this Agreement in whole or in part for the duration of the delaying cause, buy similar products elsewhere, and deduct from any

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

quantities specified under this Agreement the quantity so purchased.

- 17.3 Resumption Of Agreement. If HP elects to purchase other similar products in the event of a delaying cause, HP may resume performance under this Agreement once the delaying cause ceases and extend the Term up to the length of time the delaying cause endured. Unless HP gives notice of termination as provided above within [*] after notice from Supplier of the delaying cause, HP will be deemed to have elected to suspend this Agreement for the duration of the delaying cause.

18. EVENTS OF DEFAULT

- 18.1 Notice Of Breach. If either party is in breach of any provision of this Agreement, the non-breaching party may, by written notice to the breaching party, except as otherwise prohibited by the United States bankruptcy laws, terminate the whole or any part of this Agreement or any Order, unless the breaching party cures the breach within [*] after receipt of such written notice.

- 18.2 Causes Of Breach. For purposes of Section 18.1 above, the term "breach" includes without limitation any:

- (1) Proceeding, whether voluntary or involuntary, in bankruptcy or insolvency by or against a party;
- (2) Appointment, with or without a party's consent, of a receiver or an assignee for the benefit of creditors;
- (3) Failure by Supplier to make a delivery of OEM Products in accordance with the requirements of this Agreement or any accepted Order;
- (4) Failure by Supplier to replace or repair Noncomplying Products in a timely manner as required by Article 5 above; or
- (5) Other failure by a party to comply with any material provision of this Agreement with additional failure to provide the non-breaching party, upon written request, with reasonable assurances of future performance.

- 18.3 HP's Rights Upon Breach. In the event HP terminates this Agreement in whole or in part as provided above for a material breach by Supplier, in [*] provided HP under this Agreement, HP may [*] upon [*] and in such [*] as [*] deems [*] to the [*] and [*] as to which this Agreement is terminated. Supplier agrees to [*] the [*] of this Agreement to the [*] under the provisions of this Section.

[*] [*]. If any Eligible Purchaser having the right to purchase an OEM Product under this Agreement or under any other agreement with Supplier

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*] that an OEM Product is [*], then, irrespective of any other rights provided HP hereunder, HP may implement a [*] to [*] of such OEM Products [*] Such [*] may be [*] if HP [*] that Supplier has taken [*] the [*] or given [*] that such [*] will be [*] within a [*]

18.5 Escalated Resolution Process. In the event of any dispute arising from or regarding the subject matter of this Agreement, the parties agree to negotiate in good faith an equitable resolution of the disputed matter. If the parties are not able to resolve the dispute within [*] of first written communication of the dispute, then the parties agree to escalate such resolution process [*] as designated in Exhibit G. The [*] shall meet within [*] of escalation to resolve the disputed matter. If the dispute is not resolved within an additional [*] day period from the end of the [*] period set forth above, then either HP or Supplier may commence legal, equitable, or other action upon providing the other party not less than [*] prior written notice of such intent.

19. CONFIDENTIAL INFORMATION

19.1 Confidential Information. During the Term, a party (the "Recipient") may receive or have access to certain information of the other party (the "Discloser") that is marked as "Confidential Information," subject to a nondisclosure or confidentiality agreement between the parties, or otherwise by its very nature reasonably and clearly considered as confidential information, including, though not limited to, information or data concerning the Discloser's products or product plans, business operations, strategies, customers and related business information. The Recipient will protect the confidentiality of Confidential Information with the same degree of care as the Recipient uses for its own similar information, but no less than a reasonable degree of care, under the terms of the Confidential Disclosure Agreement attached as Exhibit F (the "CDA"). To the extent any term of this Agreement conflicts with any term in the CDA, the terms of this Agreement will control and take precedence. Confidential Information may only be used by those employees of the Recipient who have a need to know such information for the purposes related to this Agreement. The parties acknowledge that all Technical Information and Forecasts are deemed Confidential Information to be protected for a term of [*] from the date of disclosure.

19.2 Exclusions. The foregoing confidentiality obligations will not apply to any information that is (a) already known by the Recipient prior to disclosure, (b) independently developed by the Recipient prior to or independent of the disclosure, (c) publicly available through no fault of the Recipient, (d) rightfully received from a third party with no duty of confidentiality, (e) disclosed by the Recipient with the Discloser's prior written approval, or (f) disclosed under operation of law. In the event that a party becomes aware that disclosure is likely to be required by operation of law, the party having knowledge of such possible disclosure will provide the other with ample notice and opportunity to seek a

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

protective order.

20. INSURANCE REQUIREMENTS

- 20.1 Insurance Coverage. Supplier will maintain Comprehensive or Commercial General Liability Insurance (including but not limited to products and completed operations, broad form contractual liability, broad form property damage and personal injury liability) with a minimum limit of [*] combined single limit per occurrence and [*] in the aggregate, for claims of bodily injury, including death, and property damage that may arise from use of the OEM Products or acts or omissions of Supplier under this Agreement. Each policy obtained by Supplier will [*] ([*] in performing [*] or [*] herein) as [*]. Such insurance will apply as [*] and no other [*] will be called upon to contribute to a [*] thereunder. In addition, such policies will permit Supplier to waive, on its own behalf and on behalf of its insurers, any rights of subrogation against HP. Such insurance policies will be written with appropriately licensed and financially responsible insurer, and Supplier will provide for a minimum of [*] written notice to HP of any cancellation or reduction in coverage. Certificates of insurance evidencing the required coverage and limits will be furnished to HP before any work is commenced hereunder, and Supplier will deliver copies of policies or certificates to the HP contact listed in Exhibit G.
- 20.2 Claims Made Coverage. If any applicable Comprehensive or General Liability policies have "claims made" coverage, Supplier will maintain such coverage with [*] as an [*] for a minimum of [*] after termination of this Agreement. Any such coverage must have a retroactive date no later than the date upon which work commenced under this Agreement.
- 20.3 Additional Requirements. All deductibles on policies providing coverage will be paid by Supplier. In the event Supplier is self-insured for matters described in Section 20.1, Supplier agrees to respond to any claims or losses made against or incurred [*] had been purchased with the [*] than what is generally available to similar suppliers. In no event will the coverage or limits of any insurance required under this Article, or the lack or unavailability of any other insurance, be deemed to limit or diminish Supplier's obligations or liability to HP under this Agreement. Supplier's obligations under this Article (20) shall also include those as set forth in Exhibit (J) attached hereto.

21. LIMITATION OF LIABILITY

UNLESS OTHERWISE STATED HEREIN, NEITHER PARTY WILL BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS) OF THE OTHER ARISING OUT OF ANY PERFORMANCE OF THIS AGREEMENT OR IN FURTHERANCE OF THE

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

PROVISIONS OR OBJECTIVES OF THIS AGREEMENT, REGARDLESS OF WHETHER SUCH DAMAGES ARE BASED ON TORT, WARRANTY, CONTRACT OR ANY OTHER LEGAL THEORY, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE ABOVE, THE PARTIES WILL BE RESPONSIBLE FOR ANY DAMAGES OF ANY KIND INCLUDED IN AN AWARD OR SETTLEMENT OF A THIRD PARTY CLAIM UNDER ARTICLES 9, 14, OR 19 ABOVE. EXCEPT FOR THE PARTIES' RESPECTIVE OBLIGATIONS UNDER SECTIONS 14 OR 19 ABOVE, THE PARTIES' RESPECTIVE AGGREGATE LIABILITY UNDER THIS AGREEMENT SHALL BE LIMITED TO THE GREATER OF (i) [*], OR (ii) THE [*] BY SUPPLIER FROM HP UNDER THIS AGREEMENT IMMEDIATELY PRECEDING THE EVENTS GIVING RISE TO THE IMPOSITION OF LIABILITY.

22. TERMINATION

22.1 Outstanding Orders. All accepted Orders issued prior to the expiration of this Agreement must be fulfilled pursuant to and subject to the terms of this Agreement, even if the Delivery Dates are after expiration. Upon termination of this Agreement for Supplier's breach, HP may cancel any outstanding Order or require Orders to be fulfilled even if a Delivery Date is after the date of termination. If this Agreement is terminated due to HP's breach, then HP will reimburse Supplier for [*] OEM Product units within the [*] back to Supplier's standard product, as described in Exhibit (A-1) attached hereto. Such reimbursement costs shall specifically [*] used in connection with the customization of OEM Products.

22.2 Return Of HP Property. Supplier must return all HP Property to HP upon expiration or termination. All such property must be in good condition, normal wear and tear excepted. [*] will determine the [*] for [*] HP will [*]. Otherwise, Supplier will [*].

22.3 Surviving Provisions. Notwithstanding the expiration or early termination of this Agreement, the provisions regarding Warranties in Article 9, Support in Article 10, Marketing and Licensing in Article 13, Intellectual Property in Article 14, Confidentiality in Article 19, Insurance Requirements in Article 20, Limitation of Liability in Article 21, and the Miscellaneous provisions below will each survive in accordance with their terms.

23. MISCELLANEOUS

23.1 Notices. All notices to be given under this Agreement must be in writing addressed to the receiving party's designated recipient specified in Exhibit G. Notices are validly given upon the earlier of confirmed receipt by the receiving party or three days after dispatch by courier or certified mail, postage prepaid, properly addressed to the receiving party. Notices may also be delivered by

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

telefax and will be validly given upon oral or written confirmation of receipt. Either party may change its address for purposes of notice by giving notice to the other party in accordance with these provisions.

- 23.2 Exhibits. Each Exhibit attached to this Agreement is deemed a part of this Agreement and incorporated herein wherever reference to it is made.
- 23.3 Independent Contractors. The relationship of the parties established under this Agreement is that of independent contractors and neither party is a partner, employee, agent or joint-venturer of or with the other. Nothing in this Agreement precludes either party from independently developing, manufacturing, selling or supporting products similar to the OEM Products.
- 23.4 Assignment. Neither party may, directly or indirectly, in whole or in part, either by operation of law or otherwise, assign or transfer this Agreement or delegate any of its obligations under this Agreement without the other party's written consent, which such consent shall not be unreasonably withheld or untimely delayed. Any attempted assignment, transfer, or delegation without such prior written consent will be void. Notwithstanding the foregoing, HP or its permitted successive assignees or transferees may assign or transfer this Agreement or delegate any rights or obligations hereunder without consent: (1) to any entity controlled by, or under common control with, HP, or its permitted successive assignees or transferees; or (2) in connection with a merger, reorganization, transfer, sale of assets or product lines, or change of control or ownership of HP, or its permitted successive assignees or transferees. Without limiting the foregoing, this Agreement will be binding upon and inure to the benefit of the parties and their permitted successors and assigns.
- 23.5 No Waiver. The waiver of any term, condition, or provision of this Agreement must be in writing and signed by an authorized representative of the waiving party. Any such waiver will not be construed as a waiver of any other term, condition, or provision except as provided in writing, nor as a waiver of any subsequent breach of the same term, condition, or provision. Other than as expressly agreed herein, all remedies of a party provided herein, together with all remedies available at law or in equity, shall be cumulative.
- 23.6 Headings. The Section headings used in this Agreement are for convenience of reference only. They will not limit or extend the meaning of any provision of this Agreement, and will not be relevant in interpreting any provision of this Agreement.
- 23.7 Publicity. Subject to the terms and conditions of Article 19 above, neither party may publicize or disclose to any third party, without the written consent of the other party, the existence or terms of this Agreement except as required under applicable federal securities laws. In the event that Supplier becomes aware that disclosure is likely to be required by operation of law, Supplier shall promptly provide HP with ample notice and opportunity to seek a protective order. Supplier agrees that in the event that disclosure to the SEC is likely, Supplier will file a request for confidential treatment. Such request for confidential treatment

will include a request that, at a minimum, Exhibits C, D, F, H, and J to this Agreement be deemed confidential. Without limiting the generality of the foregoing sentence, no press releases may be made without the prior mutual written consent of each party.

- 23.8 Severability. If any provision in this Agreement is held invalid or unenforceable by a body of competent jurisdiction, such provision will be construed, limited or, if necessary, severed to the extent necessary to eliminate such invalidity or unenforceability. The parties agree to negotiate in good faith a valid, enforceable substitute provision that most nearly effects the parties' original intent in entering into this Agreement or to provide an equitable adjustment in the event no such provision can be added. The other provisions of this Agreement will remain in full force and effect.
- 23.9 Subcontractors and Subsidiaries. Each party unconditionally guarantees to the other party the performance of all obligations by any of its subcontractors and Subsidiaries under the Agreement (including, without limitation, payment obligations), as amended from time to time, or any other obligation of any subcontractors or Subsidiary to the other party, now existing or hereafter arising. If either party's subcontractors or Subsidiary does not perform such obligation, such party shall immediately perform such obligation.
- 23.10 Entire Agreement. This Agreement comprises the entire understanding between the parties with respect to its subject matters and supersedes any previous or contemporaneous communications, representations, or agreements, whether oral or written. For purposes of construction, this Agreement will be deemed to have been drafted by both parties. No modification of this Agreement will be binding on either party unless in writing and signed by an authorized representative of each party.
- 23.11 Governing Law. This Agreement shall be governed and interpreted according to the laws of the State of New York, exclusive of its choice-of-law provisions.
- 23.12 Exhibits. Each of the following Exhibits referred to in this Agreement is incorporated in full in this Agreement wherever reference to it is made:

- EXHIBIT (A) OEM PRODUCTS AND SPECIFICATIONS
 - (A-1) Supplier Product Specifications
 - (A-2) HP Configuration Specification Document
 - (A-3) Packaging
 - (A-4) Documentation
 - (A-5) HP OpenView SDK Developers' Guide
 - (A-6) OEM Product Interoperability Requirements
- EXHIBIT (B) ELIGIBLE PURCHASERS & [*]
- EXHIBIT (C) PRICING AND FEES
- EXHIBIT (D) MAINTENANCE AND SUPPORT
- EXHIBIT (E) HP EQUIPMENT LOAN AGREEMENT
- EXHIBIT (F) CONFIDENTIAL DISCLOSURE AGREEMENT
- EXHIBIT (G) RECIPIENTS FOR RECEIPT OF NOTICES

EXHIBIT (H) HP SUPPLIER QUALITY SYSTEM REQUIREMENTS
EXHIBIT (I) HP END USER SOFTWARE LICENSE AGREEMENT
EXHIBIT (J) SUPPLIER-MANAGED INVENTORY REQUIREMENT

AGREED:

BROCADE COMMUNICATIONS
SYSTEMS, INC.

HEWLETT-PACKARD COMPANY

By: -----

By: -----

Name: -----

Name: -----

Title: -----

Title: -----

BROCADE COMMUNICATIONS
SWITZERLAND, SARL.

By: -----

Name: -----

Title: -----

[GRAPHIC IMAGE APPEARS HERE]

EXHIBIT A-1 - Supplier Product Specification

HIGHLIGHTS

- - The SilkWorm 6400 Integrated Fabric delivers a high-density port, rack-ready solution to drive cost-effective SANs.
- - The product simplifies the deployment of large SANs by providing high port density and integrated cable management to facilitate SAN implementation and administration.
- - Modular design consists of six switch modules preconfigured in a highly available, networked switch fabric enclosed in a well-designed cabinet.
- - The Integrated Fabric is fully networkable for "pay-as-you-grow" migration to larger SAN environments.
- - With no single point of failure within the overall Fabric, the SilkWorm 6400 offers a highly available platform for mission-critical SAN-designed applications.
- - The product offers proven forward and backward compatibility with all Brocade SilkWorm switches.
- - Brocade Fabric Manager(TM) offers a centralized view of the SilkWorm 6400 switch modules to simplify SAN administration and maintenance.
- - The included Brocade Fabric OS(TM) provides distributed intelligence for the switch modules.

The SilkWorm 6400 enterprise-class Fibre Channel Integrated Fabric extends the Brocade SilkWorm intelligent storage networking infrastructure for Storage Area Networks (SANs) by providing a cost-effective means of meeting the large-port-count requirements of workgroups and enterprises. The product comprises six integrated switch modules in an enclosure with a removable steel door that represents the latest thinking in industrial design. With preconfigured switch interconnection and management software, the SilkWorm 6400 significantly simplifies the deployment and management of SAN fabrics. The 64 user ports of the SilkWorm 6400 can be managed as a single switch entity in the SAN Fabric. The SilkWorm 6400 Integrated Fabric supports business-critical SAN applications, such as LAN-free backup, server and storage consolidation, remote mirroring and data replication, high-availability clustering configurations, and new SAN-enabled applications such as dynamic storage resource and volume management.

SEAMLESS UPGRADES AND COST-EFFECTIVE MIGRATION

This product provides a seamless upgrade path for customers. The SilkWorm 6400 offers proven backward and forward compatibility with the entire Brocade SilkWorm family. It is fully per-workable in larger SANs, enabling a cost-effective

SilkWorm(R) 6400
High-Port-Count Fibre Channel Integrated Fabric

[GRAPHIC IMAGE APPEARS HERE]

The SilkWorm 6400
Integrated Fabric

"pay-as-you-grow" migration to more advanced SAN environments while reducing the need to configure and integrate multiple low-port-count switches.

EASE OF CONFIGURATION AND HIGH AVAILABILITY

The integrated design of the SilkWorm 6400 Integrated Fabric accelerates the configuration of the cables and ISL (InterSwitch Link) GBICs (Gigabit Interface Converters) that make up the fabric with 32 pre-installed and wired ISLs and associated cable management. The 64-port SilkWorm 6400 Integrated Fabric delivers high-density connectivity for large SAN fabrics and simplifies the task of designing and building high-availability enterprise SANs.

With the proven reliability of the Brocade SilkWorm family and its integrated fabric foundation, the SilkWorm 6400 modules combine to deliver a SAN fabric with built-in redundancy and no single point of failure within the overall Fabric. Based on Brocade tests, the MTBF (mean time between failures) of the individual components of the SilkWorm 6400 is estimated to be more than 50 years, and the MTTR (mean time to repair) is estimated at less than one hour. The modular architecture of the SilkWorm 6400 Integrated Fabric results in an overall availability greater than 99.999 percent.

SOFTWARE FOR SIMPLIFIED MANAGEMENT

The SilkWarm 6400 Integrated Fabric supports scalability and simplifies management by networking multiple switches under Brocade Fabric OS, the embedded real-time operating system of the industry-leading SilkWarm switch family. This enables heterogeneous device connectivity, automatic data routing and rerouting, self-healing, and scalable connectivity. The product leverages the distributed intelligence in Brocade SANs to enable more feature-rich SAN applications.

The product includes the Brocade Fabric Manager, a portable, Java-based management application that is easy to install on a Windows management station. Fabric Manager makes it easy to view the status of all switch modules, drill down to individual switch modules, and access the Brocade WEB TOOLS GUI (graphical user interface). Brocade Fabric Watch(TM) enables pro-active SAN monitoring and intelligent integration with SNMP Enterprise Management Consoles. The SilkWarm 6400 also offers both hardware- and software-enforced SAN zoning, to give SAN administrators comprehensive control over data. Brocade QuickLoop(TM) provides for connection of legacy Fibre Channel arbitrated loop devices to the SilkWarm 6400 and enables them to participate fully as members of the fabric.

BEST-OF-CLASS PRODUCTS FOR ENTERPRISE SAN FABRICS

- - All 64 user parts deliver 100 MB/sec in each direction (full duplex) to meet the most demanding bandwidth requirements for enterprise applications.
- - Universal parts automatically determine the part type for a loop, point-to-point devices, or an ISL to provide flexible connectivity with a wide variety of host, storage, and other switch types.
- - Buffer-pool management and use of mini-buffers for small frames optimize overall performance.
- - Hardware-enforced Brocade Zoning(TM) secures data access among switch parts to prevent unauthorized access to important data.
- - Services are distributed across the entire Fabric, which means there is no single point of failure.

INDUSTRY-LEADING RELIABILITY AND SERVICEABILITY

- - ISLs are prewired and installed with 32 short-wave-length (SWL) GBICs and cable management harnesses to make the unit easier to install, upgrade, and manage.

[GRAPHIC IMAGE APPEARS HERE]

- - GBIC based modular design makes it easy to hot-swap connections quickly. Media may be mixed on the same switch in any combination.

BROCADE/HP CONFIDENTIAL

- - Highly reliable components, continuous monitoring of environmental components (fan status and temperature), and extremely durable construction all maximize MTBF to reduce service costs.
- - POST (Power-On Self-Test) and online diagnostics enable administrators to monitor and test parts while the switch is in operation.
- - Per-part statistics help administrators diagnose and isolate problem parts for ease of service. The switch will continue to operate even when individual parts have been removed.
- - Embedded port-monitoring facilities automatically disable failing parts and restart them when the problem has cleared, reducing administrative overhead.
- - Swappable switch modules in an integrated switch fabric provide redundancy. With host-based failover support, automatic rerouting across switch modules ensures continued operation if one module fails.
- - Color-coded ISL cable diagrams and cables, along with the ability to replace a single switch module, reduce service costs and minimize downtime in the event of a failure.

ADVANCED SAN CONTROL AND MANAGEMENT

- - The Brocade Fabric Manager software enables the switch to be defined and viewed as a single entity to simplify administration.
- - The Fabric OS API (application programming interface) supports feature-rich SAN applications and management capabilities, including VERITAS SANPoint Control.
- - Support for industry-standard MIBs (Management Information Bases) enables SNMP (Simple Network Management Protocol)-based interfaces to access switch information.
- - Network administrators can manage switch configuration using a command-line interface or the Web-based administrative capability offered by Brocade WEB TOOLS(TM) and Brocade Zoning.
- - Self-healing feature enables the fabric to isolate a problem switch module or part and reroute traffic onto alternate paths to ensure availability with enterprise applications.
- - Brocade Fabric Watch, a time-based threshold-monitoring feature, allows advanced management of the SAN Fabric, including monitoring of the internal ISLs for congestion.
- - Self-learning feature allows the fabric to automatically discover and register host and storage devices.
- - Brocade QuickLoop enables enhanced connectivity and management of private devices.

SILKWORM 6400 INTEGRATED FABRIC SPECIFICATIONS

FIBRE CHANNEL STANDARDS

STANDARD	REVISION
FC-AL	Rev. 4.5*
FC-AL-2	Rev. 7.0
FC-FLA	Rev 2.7*
FC-GS-2	Rev 5.3*
FC-FG	Rev 3.5*
FC-PH	Rev 4.3*
FC-PH-2	Rev 7.4*
FC-PH-3	Rev 9.4*
FC-PLDA	Rev 2.1*
FC-SW	Rev 3.3*
FC-VI	Rev 1.5
IPFC	RFC 2625

* Indicates an approved standard

SYSTEMS ARCHITECTURE

FIBRE CHANNEL PARTS	64 user ports
SCALABILITY	Full Fabric Architecture: 239 switches maximum
CERTIFIED MAXIMUM	32 switches, 7 hops. Larger Fabrics certified as required
INTEROPERABILITY	SilkWorm II, SilkWorm Express, or any SilkWorm 2000 Family switch
PERFORMANCE	1.0625 Gb/sec line speed, full duplex
SWITCH BANDWIDTH	64 Gb/sec end to end
SWITCH MODULES	Nonblocking
FABRIC LATENCY	<2 (micro)sec within each module, cut-through routing
MAXIMUM FRAME SIZE	2112-byte payload
FRAME BUFFERS	Each switch module contains 448 dynamically allocated
CLASSES OF SERVICE	Class 2, Class 3, Class F (InterSwitch Frames)
PORT TYPES	FL_Port, F_Port, and E_Port. Self-discovery based on switch type (U_Port)
DATA TRAFFIC TYPES	Fabric switches support unicast, multi-cast (256 groups), and broadcast
MEDIA TYPES	Hot-pluggable, industry-standard GBICs. SWL, up to 500 m (1,640 ft). Longwave laser (LWL), up to 10 km (6.2 mi). Passive copper, up to 13 m (43 ft).
FABRIC SERVICES	Simple Name Server, Registered State Change Notification (RSN), Alias Server, multicast); and Brocade Zoning, WEB TOOLS. Fabric Watch, QuickLoop, Extended Fabrics(TM) Remote Switch(TM)
OPTIONS	User port GBICs

MANAGEMENT

MANAGEMENT Telnet, SNMP, Brocade WEB TOOLS, Brocade Zoning, Brocade SES (optional), Fabric Watch, Extended Fabrics, Remote Switch

MANAGEMENT ACCESS 10/100 Ethernet (RJ-45), in-band over a Fibre Channel (requires Fabric), Fabric Manager

DIAGNOSTICS POST and embedded online/off-line diagnostics

MECHANICAL SPECIFICATIONS

MOUNTING Rack mountable in a standard 19 in. EIA rack with removable door

ENCLOSURE Rear panel-to-door airflow, power from rear panel

SIZE 44.5 cm (17.5 in.) width, 62.2 cm (24.5 in.) height, 62.2 cm (24.5 in.) depth

WEIGHT 81.6-90.7 kg (180-200 lb)

ENVIRONMENT

TEMPERATURE Operating: 10(Degree)C-40(Degree)C (50(Degree)F-104(Degree)F) Nonoperating: -35(Degree)C-65(Degree)C (-31(Degree)F-147(Degree)F)

HUMIDITY Operating: 5%-85% noncondensing @40(Degree)C (104(Degree)F)

ALTITUDE *Up to 3,000 m (9,800 ft)

SHOCK 4 G, 11 ms_sine low impulse

VIBRATION Operating: 5 G, 0-3 kHz Nonoperating: 10 G, 0-5 kHz

POWER

SUPPORTED POWER Nominal: 100-230 VAC contiguous

RANGE Operational: 85-264 VAC

FREQUENCY 47-63 Hz

REGULATORY COMPLIANCE

	SAFETY	EMC
CANADA	CSA 950 ICES-003	Class A
UNITED STATES	UL 1950 FCC Part	15 Class A
JAPAN	IEC60950 A4	VCCI Class A
EUROPEAN COMMUNITY	EN60950 TUV, NEMKO	EN55022 Level A EN55082-2 (Immunity)
AUSTRALIA/	AS/NZS 3548	

NEW ZEALAND
INTERNATIONAL EC 60950

CISPR 22

[BROCADE(R) LOGO]

Brocade Communications Systems, Inc.

WWW.BROCADE.COM

Corporate Headquarters
1745 Technology Drive
San Jose, CA 95110
T 408 487-8000
F 408-487-8101
info@brocade.com

European Headquarters
400 Thames Valley Park Drive
Thames Valley Park, Reading
United Kingdom, RG6 1PT
T +44 (0) 118 965 3419
F +44 (0) 118 965 3519
europe-info@brocade.com

Asia-Pacific Headquarters
Level 21, 201 Miller Street
North Sydney, NSW 2060
Australia
T +61 2 9025 3766
F +61 2 9521 6995

(C) 2000 by Brocade Communications Systems, Inc. All Rights Reserved. 10/00
GA-DS-070-00

Brocade, SilkWorm, Extended Fabrics, Remote Switch, Fabric Aware, Fabric CS
Fabric Watch, QuickLoop, WEB TOOLS, and Zoning are Trademarks or registered
trademarks of Brocade Communications Systems Inc. In the United States and/or in
other countries. All other brands, products, or service names are or may be
trademarks or service marks of and are used to identify, products of services of
their respective owners.

Notice: This document is for informational purposes only and does not set forth
any warranty expressed or implied, concerning any equipment, equipment feature
or service offered or to be offered by Brocade. Brocade reserves the right to
make changes to this document at any time without notice and assumes no
responsibility for its use. This information document describes features that
may not be currently available. Contact a Brocade sales office for information
on feature and product availability.

Export or technical data contained in this document may feature on export
license from the United States Government.

EXHIBIT A-2

HP CONFIGURATION SPECIFICATION DOCUMENT

This document describes the customizations that BROCADE will perform for HP for the SW-6400 Integrated Fabric product.

PHYSICAL CUSTOMIZATION

The product will conform to HP standard customization requirements including but not limited to the following.

1. The front door will be painted HP Quartz Gray.
2. Additionally there will be a HP Logo Jewel on the front door, defined, designed and provided by HP.
3. There will be an extra copy of the serial number (numeric and bar code) placed on the rear cover
4. [*] will provide mounting Rail kit for HP Rose Bowl cabinets.
5. FRUs will not be labeled with HP part numbers, though both packaging and the VPD will have HP numbers. (see below)
6. The chassis and AC power distribution assembly will remain BROCADE color

VITAL PRODUCT DATA (VPD) CUSTOMIZATION

1. FRU HP Part numbers

FRU Description	BROCADE#	HP Number	# in full unit	VPD
Sw-2250 switch	XBR-000057			Y
Front door	XBR-000059			N
Rack Mount Kit	XBR-000061			N

2. OEM Identifier: "HP"
3. Chassis Serial Number: Range provided by HP.
4. System VPD Model Identifier: "pending final identifier from HP".

SOFTWARE CUSTOMIZATION

5. Integrated Fabric Model Number: [pending final determination from HP]
6. Splash screen: Provided by HP
7. Screen Headers: [pending final determination of HP] AS MUTUALLY AGREED.
8. Create Fabric Manager agent for SAN management device manager.
9. Help screens to be consistent with HP branding as mutually agreed.

PACKAGING

10. FRU Packaging Labeling: FRU packing material will be labeled with the HP part members and the BROCADE part number.
11. Unit Packaging Labeling: Units will be shipped in the standard brown shipping box. without BROCADE identification on the box. HP product identification will be placed outside the box in much the same

manner as the FRU labeling. HP, for field installed units, may provide and apply HP color stickers to packaging.

DOCUMENTATION

Documentation [*] covered in reference A-4.

ENVIRONMENTAL/TRANSPORTATION REQUIREMENTS

The following is a summary of HP's internal environmental specifications for our products. It is expected that these tests or ones that provide the same results are performed on the product being considered. A joint effort where possible, will be used to complete the following tests. HP will be responsible for any tests not able to be completed by Supplier. Supplier has indicated their test specifications below as a reference point. For details on the testing, contact HP Quality Engineering.

		SPECIFICATION	
THERMAL MAPPING	TEMPERATURE PROFILE	[*]	
TEMPERATURE	OPERATING	[*]	
	NON-OPERATING [*]	[*]	
TEMPERATURE STRESS	[*]	[*]	
HUMIDITY	OPERATING	[*]	
	NON-OPERATING	[*]	
ALTITUDE	OPERATING	[*]	
	NON-OPERATING	[*]	
		SPECIFICATION	
VIBRATION All axes to be tested	SINE SWEEP SURVIVAL [*]	[*]	[*]
	RANDOM SURVIVAL	POWER SPECTRAL DENSITY	[*]
		[*]	
		[*]	
		[*]	

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

RANDOM OPERATING POWER SPECTRAL DENSITY [*]
[*]
[*]
[*]

SPECIFICATION

SHOCK OPERATING [*]
END USE HANDLING [*]
[*]
TRANSPORTATION (3) [*] [*]
[*]

SPECIFICATION

SHIPPING CARTON PERFORMANCE [*]
[*]
VIBRATION [*] [*]
[*]
SWEPT SINE [*] [*]
[*]
[*]
SHOCK [*] [*]
[*]

SPECIFICATION

ELECTROSTATIC DISCHARGE [*] [*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

SPECIFICATION

POWER LINE: OPERATING (4)	VOLTAGE AND FREQUENCY	[*]
	INRUSH CURRENT	[*]
	TOTAL HARMONIC DISTORTION	[*]
	TRANSIENT SURGE	[*]
	SURGE	[*]
	SAG	[*]
	DROP OUT	[*]
	TRANSIENT	[*]
	CHATTER TEST	[*]
	ON/OFF POWER-CYCLING	[*]
	BROWN OUT AND RECOVERY	[*]
	LINE CYCLE DROPOUT	[*]

SPECIFICATION

MARGIN TESTS	LIMIT EXPLORATION	[*]
	[*]	

Notes:
- - - - -

- (1) [*]
- (2) [*]
- (3) [*]
- (4) [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (A-3)

OEM PRODUCT PACKAGING INSTRUCTIONS

1.0 PACKAGING STANDARDS:

- Brocade to comply with all HP standard packaging and labeling requirements.

2.0 TOOLS REQUIRED:

- Brocade to inform HP of any tools required for product packaging.

3.0 REFERENCE DOCUMENTS:

- Brocade to inform HP of any reference documents required for product packaging such as quality assurance and cosmetic requirement documents (ISO documentation).
- Brocade to provide HP with packaging design specifications/drawings for the SW 6400.
- Unpacking and Installation Guide (see attached).

4.0 PRODUCT ASSEMBLY:

- Brocade to provide HP with their product assembly requirements demonstrating ISO standards compliance.
- Brocade to provide HP with final packaging pictures for the SW 6400,

(Note: Exhibit A-3-1 follows immediately after this page.)

BROCADE/HP CONFIDENTIAL

EXHIBIT (A-3-1)

[BROCADE(R) LOGO]

SILKWORM(R) 6400

QUICKSTART GUIDE

COPYRIGHT

(C)2001 Brocade Communications Systems. Incorporated.

ALL RIGHTS RESERVED.

Brocade, Silk Worm, Silk Worm Express, Fabric OS, Fabric Watch, QuickLoop, and the Brocade logo are trademarks or registered trademarks of Brocade Communications Systems, Inc., in the United States and/or in other countries.

All other brands, products, or service names are or may be trademarks or service marks of, and are used to identify, products or services or their respective owners.

Notice: This document is for informational purposes only and does not set forth any warranty, express or implied, concerning any equipment, equipment feature, or service offered. Brocade reserves the right to make changes to this document at any time, without notice, and assumes no responsibility for its use.

Export of technical data contained in this document may require an export license from the United States Government.

Publication Number 53-0000112-01

SilkWorm 6400 QuickStart Guide

UNPACKING AND INSTALLING THE SILKWORM 6400

Use this procedure to unpack and install a SilkWorm 6400 Integrated Fabric.

NOTE: After unpacking and installing the SilkWorm 6400, the SilkWorm 6400 will need to be configured. Refer to the SilkWorm 6400 Product Guide, Publication Number 53-0000109-01 for configuration information, as well as all mechanical and software information.

INSTALLATION CONSIDERATIONS AND SAFETY GUIDELINES

WARNING The SilkWorm 6400 Integrated Fabric weighs approximately 200 pounds. Use proper handling and lifting equipment, such as a hydraulic lift, to reduce the possibility of injury or product damage.

The SilkWorm 6400 is a high-port count integrated fabric comprised of six switch modules in a rack mountable chassis.

- If installing the SilkWorm 6400 in a closed or multi-rack assembly, ensure the air temperature measured inside the SilkWorm 6400 chassis door does not exceed 40 degrees C during operation.
- Ensure the airflow available to the switch fabric is at least 300 cfm (cubic feet per minute).
- Verify that the fully-loaded chassis does not unbalance the rack or exceed the rack's mechanical limits, with all six SilkWorm 2250 switches secured in the chassis as well as with one switch partially extended out of the chassis.
- Verify the supply circuit, line fusing, and wire size are adequate according to the electrical rating on the switch nameplate.
- Verify that all equipment installed in the rack has a reliable branch circuit ground connection.
- It is strongly recommended that the EIA Rack be mechanically secured to prevent tipping over in an earthquake.

REQUIREMENTS

TIME REQUIRED

Approximately 45 minutes.

ITEMS REQUIRED

- SilkWorm 6400.
- #2 Phillips screwdriver.
- 30 inch deep rack space, 14 rack units high, and 19 inches wide.
- Six power outlets, one for each switch.
- A hydraulic lift.

UNPACKING THE SILKWORM 6400

1. Unpack the SilkWorm 6400.
 - a. After opening the shipping crate, remove the packaging wrapped around the SilkWorm 6400.
 - b. Remove the screws holding the SilkWorm 6400 to the pallet.

INSTALLING THE SILKWORM 6400 IN THE RACK

WARNING The SilkWorm 6400 weighs approximately 200 pounds,
 and requires a hydraulic lift to move it safely.
 Move the chassis slowly and carefully, and continue
 supporting it until it is verified as correctly
 positioned on the shelf and fastened in the rack.

2. Use the supplied Rack Mount Rail Kit to create a "shelf" in the EIA rack for the SilkWorm 6400 chassis, and to install all chassis mounting brackets. See Figure 1-1, Installation of the SilkWorm 6400 in a Rack, for illustration of the following steps a-b.

- a. Attach both the left and right Rack Mount Brackets (Items 1 and 2) to the EIA rack, so that they provide a shelf-like surface for the chassis to rest on; attach the brackets using 1/4-20 x .5 inch Phillips Head Screws (Item 6, quantity 12). Tighten the screws to a torque of 40 inch-pounds.

[GRAPHIC IMAGE APPEARS HERE]

FIGURE 1-1 Installation of the SilkWorm 6400 in a Rack

ITEM 1	Left Rack Mount Bracket	ITEM 2	Right Rack Mount Bracket
ITEM 3A	Upper Rack Mount Bracket, 2-Piece	ITEM 3B	Upper Rack Mount Bracket, 2-Piece (L-shaped)
ITEM 4	8-32 x 5/16 inch Flathead Screws	ITEM 5	10-32 x .63 inch Phillips Panhead Screws
ITEM 6	1/4-20 x .5 inch Phillips Panhead Screws	ITEM 7	10-32 Retainer Nuts
ITEM 8	Left and Right Front Mounting Brackets	ITEM 9	10-32 x 3/8 Phillips Panhead Screws

- b. Position the 10-32 Retainer Nuts (Item 7, quantity 4) on the front of the EIA rack, as shown in Figure 1-1. These nuts can be repositioned later, but must be installed on the EIA rack before the chassis is installed.
3. Attach Item 3A. Upper Rack Mount Bracket, to the chassis using 8-32 x 5/16 inch Phillips Flathead Screws (Item 4. quantity 4 per bracket). Position the slotted holes toward the rear of the chassis. See Figure 1-1 for right and left bracket location.

4. Use a hydraulic lift to raise the chassis, then slide the chassis onto the two shelf-like Rack Mount Brackets, ensuring that the chassis is set evenly and lined up on both brackets.
5. From the back of the EIA rack, attach the two L-shaped Upper Rack Mount Brackets (Item 3B) to Item 3A, using 10-32 x 3/8 inch Phillips Panhead Screws (Item 9, quantity 4 per bracket).
6. Secure the chassis in the rack.
 - a. Position two of the 10-32 x .63 inch Phillips panhead screws (Item 5) in the holes of the right L-shaped Upper Rack Mount Bracket (Item 3B) and the matching holes in the EIA rack, and tighten to 25 inch-pounds.
 - b. Position two of the 10-32 x .63 inch Phillips Panhead Screws (Item 5) in the holes of the left L-shaped Upper Rack Mount Bracket (Item 3B) and the matching holes and retainer nuts in the rack, and tighten to 25 inch-pounds.
 - c. Position two 10-32 x .63 inch Phillips panhead screws (Item 5) in the holes of the right Front Mounting Bracket (Item 8, right side) and the matching holes and retainer nuts in the rack, and tighten to 25 inch-pounds.
 - d. Position two 10-32 x .63 inch Phillips panhead screws (Item 5) in the holes of the left Front Mounting Bracket (Item 8, left side) and the matching holes and retainer nuts in the rack, and tighten to 25 inch-pounds.
7. Connect each of the six power cables to a power source. Route one cable per channel through each of the six channels under the switches, and plug each cable into the power connector of the corresponding switch. Verify that each power cable is firmly seated in the power connector.

NOTE: Each time the switch is powered on, it automatically performs a POST (Power On Self Test), which takes approximately two minutes and is complete when LED activity stops.

THE SILKWORM 6400 INSTALLATION IS NOW COMPLETE.

At this point, the SilkWorm 6400 will need to be configured. For configuration instructions, as well as operating and maintenance information, refer to the SilkWorm 6400 Product Guide, Publication Number 53-0000109-01.

PRODUCT DOCUMENTATION: [*], AND DISTRIBUTION

Supplier will provide to HP an electronic master copy of Supplier's standard documentation made generally available for the Products, using the FrameMaker on an HP FTP site. It is an express condition to the timely release of the OEM Products that all applicable documentation be timely submitted by Supplier to HP in acceptable format and content. Such documentation will include, but is not limited to, planning, installation, operation, and service and user guides, as appropriate. Supplier retains ownership of all such customized documentation performed by Supplier. Any costs associated with the preparation of the [*] Product documentation are set forth in this Agreement. Supplier shall provide HP with master copies of the documentation in both hard copy and electronic form. Except as otherwise provided and subject to the retention of all copyright notices and/or confidentiality legends, HP shall have the right to [*] for use internally by its employees and Resellers. HP shall have the right to [*] supplied to it by Supplier. HP shall provide Supplier with a [*], and Supplier agrees to [*] of any release within [*] of receipt of such [*]. Further, HP shall have the right to [*] to its Resellers and End Users Customers. Such license shall continue [*] after the date of last shipment by HP of the Products purchased under this Agreement. If HP [*] into the Documentation, then Supplier shall have [*].

PRODUCT AND DOCUMENTATION

1. PRODUCT DOCUMENTATION. As stated in this Agreement, Supplier will prepare for HP and provide standard documentation made generally available for the Product(s) [*].

2. OTHER DOCUMENT REQUESTS.

2.1 CD Manual Files. If requested, [*] Suppliers generally available CDs with manual text files will be supplied [*]. Please specify the manuals and indicate the preferred file format desired. (PDF and FrameMaker 5.5 source files). [*] of each manual may be ordered for each revision level.

2.2 Illustrations. Upon request, [*] of each [*] used in the Manual(s) will be provided [*] when text files of each manual are ordered. These files will be provided in both .cdr and .bmp formats.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE/HP CONFIDENTIAL

EXHIBIT (A-5)

HP OPENVIEW DEVELOPERS' GUIDE - SDK

This Exhibit (A-6) incorporates by reference the publication issued by HP and generally known as "HP OpenView Storage Area Manager Developer's Guide, Edition 1200," a copy of which Supplier acknowledges receipt from HP prior to or on the Effective Date of the Agreement.

EXHIBIT (A-5)

Page 1 of 1

EXHIBIT (A-6)

HETEROGENEOUS SWITCH INTEROPERABILITY

During the Term of this Agreement and any extension(s) thereto, and upon written request from HP, Supplier and HP shall use [*] to achieve mutually agreed switch fabric interoperability between Supplier's [*] and [*] switch products from [*]. (Note: all current switch interoperability testing performed by Supplier to date has been done with the [*] product in [*] only. Any new switch platforms to be tested that are not specified in Attachment (A) to this Exhibit (A-6) will require HP to obtain such equipment for all labs involved in the interoperability development.) In furtherance of the objectives under this Exhibit (A-6), HP and Supplier further agree to:

1. Evaluate Supplier's then-currently available firmware for standards-compliant interoperability capability;
2. Review HP-completed test results for the following configurations set forth in Attachment (A) of this Exhibit (A-6) and mutually establish defined configurations substantially derived from the baseline configurations set forth in Attachment (A) to this Exhibit (A-6). Supplier will support such configurations according to the provisions of Exhibit (D) of the Agreement.
3. Continue to add mutually agreeable and feasible configurations/functions to be qualified and supported.
4. Mutually establish a test plan, including equipment, resources required (people, etc.) and milestones/timelines for future supported configurations.
5. Mutually establish a communication and program management plan to address operational issues and status updates in a timely manner.

Supplier will retain responsibility to comply with the FC-SW2-Rev4.8 standard and FC-MI Rev 1.5 Technical Report Section 7 (Fabric Behaviors) which identify the areas of Supplier's required compliance including, but not limited to, the following functions:

1. [*]
2. [*]
3. [*]
4. [*]
5. [*]

Any unique development requested by HP to facilitate interoperability with other third party providers will be based on joint specification and endorsement by all interested parties and prioritized considering implementations to be included in any resulting future standard. Supplier will have [*] testing, test results, or resulting changes to Supplier's products, and will have [*] OEM products or firmware to fix problems reasonably determined by both HP and Supplier to be the responsibility of any unaffiliated third party. HP acknowledges that it has [*] to ensure similar cooperation to facilitate this tripartite interoperability effort.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Supplier and HP shall review current HP test results from the configurations set forth in Attachment (A) to this Exhibit (A-6), and will mutually establish defined configurations substantially derived from those baseline configurations designated in Attachment (A). Supplier will [*] such mutually defined configurations. Subject to completion of steps 1 through 5 listed above and mutually agreeable validation test results, Supplier will [*] HP on the mutually defined configurations within [*] of the Effective Date of this Agreement. Additionally, program teams from Supplier and HP will continue to [*] configurations and test plans. The first joint program team meeting shall occur within [*] of the Effective Date of this Agreement and shall include Vice President and Director level attendees from both Supplier and HP.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

ATTACHMENT (A)

[GRAPHIC IMAGE APPEARS HERE]

EXHIBIT (A-6)
Page 4 of 7

ATTACHMENT (A)

[GRAPHIC IMAGE APPEARS HERE]

EXHIBIT (A-6)
Page 4 of 7

ATTACHMENT (A)

[GRAPHIC IMAGE APPEARS HERE]

EXHIBIT (A-6)
Page 4 of 7

ATTACHMENT (A)

[GRAPHIC IMAGE APPEARS HERE]

EXHIBIT (A-6)
Page 4 of 7

ATTACHMENT (A)

[GRAPHIC IMAGE APPEARS HERE]

EXHIBIT (A-6)
Page 4 of 7

EXHIBIT (B)

ELIGIBLE PURCHASERS & [*]

ELIGIBLE PURCHASERS:

HP [*] COMPUTER

[*]

[*]

[*] Germany

HEWLETT-PACKARD COMPANY

[*]

[*] CA [*]

HP GLOBAL SUPPORT LOGISTICS

PRODUCT SUPPORT DIVISION

[*]

[*] CA [*]

[*] LOCATIONS:

EUROPEAN REGION [*] :

[*]

[*]

Germany

NORTH AMERICAN REGION [*]

Hewlett-Packard Company

[*] -

[*] CA [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE/HP CONFIDENTIAL

EXHIBIT (C)

PRICING AND FEES

OEM PRODUCT PRICING.

Subject to the terms and conditions of the Agreement, [*] made available by Supplier to HP, as set forth in this Agreement and more particularly described in Exhibit (A), are as set forth below.

All prices listed below are in United States Dollars (USD) and are [*]. All OEM Product pricing herein is subject to the terms and conditions of this Agreement and more particularly those of this Exhibit (C). [*]

BROCADE OEM SOFTWARE PRODUCTS TERMS AND CONDITIONS.

Silkworm 6400 OEM Product Orders. All Silkworm 6400 OEM Product units purchased under this Agreement shall include [*] as described herein [*].

No Distribution Obligation. Notwithstanding anything to the contrary herein, [*] in new purchase orders is expressly subject to the provisions of Section 13.1 (Marketing and Distribution) of this Agreement.

All Other Software License Fees. For the Term of this Agreement and any extension(s) thereof, Supplier will provide to HP [*] for use in conjunction with OEM products provided by Supplier [*] will be released to HP [*]. Supplier shall provide such copies and/or required [*] of the Software listed in this Section in [*].

Security Software. If or when this Software product is offered to any of [*], Supplier will [*] to HP at [*].

Internal-use Copies. [*] shall be due for copies of the Software used by HP for [*]

Software Delivery. All Software provided by Supplier under this Agreement shall be offered to HP [*]

Software Licenses. All Software license OEM Products listed in this Exhibit (C) shall include HP's right to [*] will be due for any package item subsequently [*].

SILKWORM 6400 AGGREGATOR FC SWITCH OEM PRODUCT PRICING.

HP PART DESCRIPTION: HP Surestore FC-6400 (64-Port Fibre Channel Fabric Switch)

SUPPLIER MODEL NO. / DESCRIPTION: [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*] HP PURCHASE PRICE

[*] [*]

[*] [*]

[*] [*]

[*] [*]

BROCADE FABRIC SOFTWARE OEM PRODUCT PER-COPY FEES.

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

FRU OEM PARTS.

All FRU pricing listed below shall be effective beginning on the Effective Date of the Agreement [*]

FRU OEM PARTS (FOR BR-6400 OEM PRODUCT):

SUPPLIER MODEL NO. / DESCRIPTION: [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

[*]	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

[*]	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

[*]	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

[*]	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

[*]	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (C)
Page 3 of 3

BROCADE/HP CONFIDENTIAL

EXHIBIT (D)

MAINTENANCE AND SUPPORT

- - GENERAL TERMS:

- SCOPE: Supplier will provide maintenance and support services to HP as specified in these Support Terms to allow HP to provide effective service to end-user customers ("Customers") of the Product. Unless otherwise agreed, HP will serve as the primary support contact with Customers, and Supplier shall have no direct end-user customer support obligations except as otherwise provided herein. The obligations of each party are specified below.
- DEFINITIONS: The following capitalized terms will have these meanings when used in these Support Terms:
 - "ACTION PLAN" means the initial plan to be created and implemented by Supplier in response to an HP Problem Resolution or Escalation request. At a minimum, the Action Plan must contain the following:

[*]
 - "ESCALATION" is the process described in ARTICLE 4 below through which HP declares that a Customer situation requires immediate action. Under this process, the nature and severity of the problem is raised in each party's organization and additional resources are allocated as specified in these Support Terms toward solving the problem.
 - "FIX" means a change in a Product that removes a problem in that product. A Fix must be designed and tested so that it can be distributed to all Customers. A Fix may be temporary or permanent. A temporary Fix may be a patch or bug fix that temporarily modifies a Product or any software in the product without rebuilding that product. A permanent Fix provides a permanent solution to the problem, agreed upon by both HP and the Supplier.
 - "PROBLEM RESOLUTION" is the process described in ARTICLE 3 below through which HP submits a Request for Technical Assistance to notify Supplier when a problem (such as a fault or defect) is suspected in a Product. Under this process, HP confirms the problem diagnosis with Supplier, and the parties cooperate to resolve the problem.
 - "SUPPORT INFORMATION" means Product Service Information and a Knowledge Data Base of known problems related to Supplier's support of Products.
 - "STATUS UPDATE" means Supplier's summary of the problem, describing the possible cause and the incremental work to be performed to reach resolution, including the Action Plan and the availability date of a Fix.
 - "TECHNICAL ASSISTANCE" is the process described in Article 2 below through which HP obtains assistance from Supplier in the support of Customers. Technical Assistance includes the

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

exchange of information, such as product configuration, product operation, or other necessary answers or assistance to support questions.

- "TRACKING, SYSTEM" means an electronic database to be maintained by the parties for updating and communicating information pertaining to Service Requests, Technical Assistance, Problem Resolution and Escalation. The particular type of Tracking System will be mutually determined, as more particularly described in Section 1.7 below.
- "WORKAROUND" means a temporary solution or temporary Fix that restores operational capability for the Product, without severely compromising the performance of that product, until a permanent Fix is available. A Workaround can be a change in the configuration or a change in Customer documentation.
- "PRODUCTS" means the products listed in Exhibit (A) of the Agreement to which this Exhibit is attached, including all related Documentation. Software licenses and media, Parts, and other deliverables provided pursuant to the Agreement.
- GENERAL OBLIGATIONS: Each party agrees to the following general terms:
 - For each Product, Supplier will provide a product support plan incorporating HP's support planning processes and support recommendations.
 - Unless expressly authorized under these Support Terms, neither party will commit resources of the other to Customers.
 - Both parties will provide such information to each other as is needed to implement these Support Terms, subject to the confidentiality and licensing provisions of this Agreement. Unless otherwise specified, all such information will be used by the other party solely for its internal use to fulfill its obligations under these Support Terms.

[*]

[*]

[*]

[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

[*]

- STRATEGIC AND TECHNICAL SUPPORT CONTACTS: Supplier and HP have each designated in Appendix I a Strategic Support Contact and a Technical Support Contact, which may be one and the same person. The Strategic Support Contacts will be the focal points for general relationship and process issues and will be responsible for managing the overall relationship of the parties. The Technical Support Contacts will be the focal points for Customer technical issues, including Technical Assistance, Problem Resolution and Escalation. Technical and Strategic Support Contacts may be changed at any time upon written notice to the other party.
- STATUS REVIEW MEETINGS: Supplier and HP Strategic Support Contacts or their designees will meet on a regular basis for the purpose of reviewing the effectiveness of their support relationship, suggesting changes, implementing improvements and sharing technical information. Meetings will take place at least [*] in the [*] of the Agreement, and at least [*] thereafter.
- COMMUNICATIONS BETWEEN PARTIES: Any support-related communications required or permitted to be given under these Support Terms will be made by telephone, or by electronic mail ("e-mail") in a standard format agreed to by the parties, to the appropriate contact.
- PROBLEM TRACKING SYSTEM: The parties agree to implement and maintain a problem tracking database (the "Tracking System") for inputting, accessing and updating information on Requests for Technical Assistance, Problem Resolution and Escalation.
- RESPONSE TIMES: Supplier agrees to respond to HP requests for Technical Assistance, Problem Resolution and Escalation as soon as possible after receipt of the request, but in no event later than the response times specified in Appendix II to these Support Terms, in accordance with the problem classification listings in that Appendix.
- TECHNICAL ASSISTANCE:
 - HP REQUEST FOR TECHNICAL ASSISTANCE.
 - When making a request for Technical Assistance, HP will provide the following information to Supplier: (a) description of the situation; (b) the HP assigned call classification and the HP identification number; and (c) the call back phone number if different from the Technical Support Contact phone number listed in Appendix I.
 - COLLECT THE FOLLOWING INFORMATION FOR ANALYSIS:
[*]

- -
* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- PROVIDE INFORMATION FOR BROCADE TO BE ABLE TO REPRODUCE THE PROBLEM: Step-by-step procedure(s) used to recreate the problem, if possible.
- SYSTEM CONFIGURATION INFORMATION:
 - HOST: All OS platforms and versions; HBA type and driver version
 - HOST Applications: List
 - STORAGE: Disk or tape subsystem type (i.e: RAID, JBOD, public, private, DLT, etc.), manufacturer and firmware version.
 - Storage management software and applications
 - SWITCH TOPOLOGY: Describe the network configuration. Provide SAN diagram if possible.
 - Is the switch in a cascaded or meshed environment?
 - How many switches are in the configuration? Of what types?
 - How are the switches zoned?
 - Are there parallel fabrics? Dual host, storage connections
 - Are there any third-party switches linked in the fabric?
 - Are there any arbitrated loop devices connected?
 - Are any bridges, gateways, or routers connected? To what?
- Effective as of the date of [*] of the Product, Supplier will make its Technical Support Contacts available to receive Technical Assistance requests from HP through the supplier's designated toll-free telephone number, designated e-mail address, _____, or designated web site, _____. The supplier shall provide technical support to HP Support as set forth in this Agreement [*]
- Supplier will take all necessary steps to resolve the Technical Assistance request and provide HP with the resolution and all available information as soon as it is available but no later than the response times specified in Appendix II.
- HP agrees that the support engineers that contact Supplier for Technical Assistance have previously received a substantial level of training on the Product.
- TECHNICAL ASSISTANCE RECORDS:

Supplier will keep a record of all Technical Assistance requests in Supplier's Tracking System and update their current status. As soon as possible after final resolution, Supplier will input a detailed description of the "Technical Assistance request and resolution in Supplier's Tracking System.

 - TECHNICAL ASSISTANCE RECORDS WILL INCLUDE, AT A MINIMUM. THE FOLLOWING INFORMATION:
 - HP tall identification number and Supplier call tracking number.
 - Date of initial call to the supplier.
 - Names of call participants.
 - Times and dates of subsequent calls to HP
 - Model, version and serial number of Product(s) involved; and version of operating system involved.
 - Problem Description (Symptoms) as provided by HP.
 - Root Cause(s) as provided by the supplier
 - Recommended Corrective Action(s) Alternatives and Priorities (Steps taken to diagnose and remedy the problem.) provided by the supplier.
 - Any Action Plan(s) required for follow-up or resolution.
 - Date of resolution.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (D)
Page 4 of 9

- CLOSING TECHNICAL ASSISTANCE REQUEST: After a Technical Assistance request is resolved and the resolution information is communicated to HP and documented in the Tracking System, HP will contact Supplier to close the request.
- WEEKLY TECHNICAL ASSISTANCE REPORT: The Supplier will provide a weekly technical report covering all problems received from HP during the current week, all problems still open from previous weeks including the original date forwarded to the Supplier, current status of each problem, categorization of problems and resolutions, and problem metrics including average response time and number of escalations. Note: Problems include both Problem Resolution Requests (paragraph 3) and Escalations (paragraph 4).
- PROBLEM RESOLUTION:
 - REQUESTING PROBLEM RESOLUTION SERVICE:
 - HP will receive defect reports, inquiries and problem calls about Products from HP's Customers. If HP is unable to resolve a problem after Technical Assistance and after reasonable efforts, HP may provide Supplier a Request for Technical Assistance.
 - When making a Request for Technical Assistance, HP will provide the following information in addition to the HP-provided information as identified and listed in Section 2.1.1 & 2.2.1 above:
 - Description of diagnostic work performed and data collected by HP.
 - Action being requested (e.g. remedying or assisting in isolating the fault)
 - Problem classification pursuant to the definitions in Appendix II.
 - PROBLEM RESOLUTION PROCESS:
 - After Supplier receives a Request for Technical Assistance, it will acknowledge receipt and then acknowledge HP's diagnosis of the problem. When it is mutually deemed necessary, [*] contact may be established. Supplier will recommend appropriate corrective action(s) on the Request for Technical Assistance to resolve the problem as soon as possible, but in no event later than the response times specified in Appendix II, according to the classification of the problem.
 - In the event that neither HP nor Supplier is able to isolate and resolve a Critical or Serious situation. HP may request that Supplier assist HP in dialing into the Customer's system directly to assist HP in analyzing and troubleshooting the problem. Supplier will provide any necessary diagnostic tools to troubleshoot the problem on site. HP will provide Supplier access through telnet or web tools. If the problem is mutually deemed to require Supplier on-site presence in order to diagnose and isolate a problem, the Supplier will provide technical assistance on-site (see paragraph 4 - Escalation).
 - SUPPLIER WILL PROVIDE AN ACTION PLAN WITHIN THE RESPONSE TIMES LISTED IN APPENDIX II; based on HP's classification of the problem. An Action Plan may require Supplier to: (a) reprioritize its other activities in order to meet the commitment to solve a Customer problem; (b) increase resources to address the problem; (c) assist HP with remote dial into a Customer system for direct observation; (d) assist HP with on-site analysis.
 - SUPPLIER WILL NOTIFY HP UPON RESOLUTION OF THE PROBLEM: or upon the availability of a Fix or Workaround. If a permanent resolution cannot be achieved within the response times

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

specified in Appendix II, Supplier will notify HP of any modification to the original Action Plan and the anticipated availability of a permanent problem resolution.

- Supplier will enter in the Supplier's Tracking System all Status Updates, Action Plans and other communications requested by HP's Technical Support Contact. Supplier may request additional information from the HP Technical Support Contact in order to meet the response times specified in Appendix II.

- PROBLEM RESOLUTION RECORDS:

- Supplier will keep records of all Requests for Technical Assistance in the Suppliers Tracking System and update their current status. Supplier will also be responsible for accessing, reviewing, and updating defect information related to the Products. The Supplier will provide a weekly report as referenced in paragraph 2.4.
- PROBLEM RESOLUTION RECORDS WILL INCLUDE, AT A MINIMUM, THE ITEMS LISTED IN SECTIONS 2.1.1, 2.2.1. AND 3.1.2 ABOVE ALONG WITH THE FOLLOWING INFORMATION:
 - Summary of the problem as finally diagnosed.
 - Detailed description of the root causes and symptoms.
 - Actions taken to resolve the situation.
 - Date of Problem Resolution request and Final resolution.
 - Likelihood of problem recurring and recommended action in the event of a recurrence.
 - Supplier and HP Service Request numbers for cross reference purposes.
 - Fix or Workaround implemented and how and when available.
 - Tests performed on the Fix or Workaround.
 - If only temporary Fix or Workaround is available, the Action Plan for Permanent Fix.

- CLOSING PROBLEM RESOLUTION REQUEST:

- After problem resolution has been communicated to HP and verified by agreement of HP and the Customer, HP will notify Supplier that HP is closing the Problem Resolution and Request for Technical Assistance.

- ESCALATION:

- REQUESTING AN ESCALATION:

- If HP determines that [*] are needed to resolve a Customer situation or to [*] may request an Escalation. Supplier will cooperate with HP by following the Escalation procedures set forth below.
- WHEN REQUESTING ESCALATION, in addition to the HP-provided information required under Problem Resolution in Sections 2.1.1, 2.2.1, and 3.1.2 above, HP will provide:
 - Caller's location.
 - Any currently installed Fixes or Workarounds.
 - Reason for escalation.
 - Steps taken to resolve problem.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- Any Requests for Problem Resolution issued with respect to the problem.
- RESPONSE TO ESCALATIONS: Supplier will continue to cooperate with HP until the Escalation is resolved, or until HP and Supplier mutually agree that all reasonable means of resolution have been exhausted. Effective as of the date of first customer shipment, Supplier will respond to an Escalation from HP [*].
- ESCALATION PROCESS: HP's Technical Support Contact may contact Supplier's Technical Support Contact to request Escalation. HP will follow-up by e-mail with any additional information available at the time. Supplier will have [*] to resolve the Escalation, and when mutually deemed necessary, [*] contact may be established. If Problem Resolution Service Requests are produced as a result of the Escalation, the procedure defined above for Problem Resolution must be followed.
- ESCALATION RECORDS:
 - Supplier will keep a record of all Escalation requests in the Supplier's Tracking System and update their current status.
 - ESCALATION RECORDS WILL INCLUDE, AT A MINIMUM, THE ITEMS LISTED IN SECTION 3.3.2 ABOVE ALONG WITH THE FOLLOWING INFORMATION:
 - [*]
- THE ROLE OF TECHNICAL SUPPORT CONTACT DURING ESCALATIONS: The Supplier's Technical Support Contact will prepare an Action Plan as quickly as possible [*] request for Escalation. This Action Plan may be modified by mutual agreement of the parties.
- MONITOR PHASE:

A MONITOR PHASE MAY BE IMPLEMENTED by HP to evaluate the situation over a period of time to verify that the problem has been resolved to the Customer's satisfaction. The Monitor Phase starts after a resolution is provided to the Customer. When the problem has been resolved to the Customer's satisfaction, the Monitor Phase is terminated and the Escalation is closed by HP. Both HP and Supplier will coordinate monitoring activities. [*] will determine the [*] CLOSING AN ESCALATION. When HP and the Customer agree that the problem has been resolved satisfactorily or the situation no longer requires Escalation, the Escalation will be closed by HP at the end of the Monitor Phase. The Tracking System will then be updated as necessary by Supplier to record the results of the Monitor Phase, including any actions taken, results of those actions, likelihood of problem reoccurrence and recommended future actions.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

APPENDIX I

STRATEGIC AND TECHNICAL SUPPORT CONTACTS

INITIAL CALLS FOR BROCADE'S TECHNICAL ASSISTANCE NEED TO GO THROUGH:

PHONE:
EMAIL:

THE FOLLOWING PERSONS ARE DESIGNATED TO SERVE AS STRATEGIC SUPPORT CONTACTS:

SUPPLIER:	HP:
- - - - -	--
NAME:	[*]
ADDRESS: Brocade Communications	ADDRESS: Hewlett-Packard Company
1745 Technology Drive	602 E, Montecito St.
San Jose, CA 95110	Santa Barbara, CA 93103
[*]	[*]

THE FOLLOWING PERSONS ARE DESIGNATED AS TECHNICAL SUPPORT CONTACTS:

SUPPLIER:	HP:
- - - - -	--
NAME:	[*]
ADDRESS: Brocade Communications	ADDRESS: Hewlett-Packard Company
1745 Technology Drive	602 E. Montecito St.
San Jose, CA 95110	Santa Barbara, CA 93103
[*]	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

APPENDIX II

[*]

HP CAL/PROBLEM CLASSIFICATION	ACKNOWLEDGE PROBLEM RECEIPT; ENGINEER ASSIGNED	INITIAL ACTION PLAN/STATUS UPDATE	FIX, OR WORKAROUND TO HP	PERMANENT FIX OR LONG TERM ACTION FOR A PERMANENT FIX
[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]	[*]

*BCS =Business Continuity Service

CLASSIFICATION OF PROBLEM SITUATION.

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (E)

HP EQUIPMENT LOAN AGREEMENT

THIS EQUIPMENT LOAN AGREEMENT, (the "Agreement") is entered into between HEWLETT-PACKARD COMPANY, ("HP"), and Brocade. This Agreement is effective as of February 28, 2001 (the "Effective Date").

- - LOAN OF EQUIPMENT. HP hereby loans to Brocade, for the applicable Term defined below, the HP-owned equipment (collectively, "HP Equipment"), which may consist of hardware, software and documentation described in the HP Equipment Schedule attached as Exhibit A. HP may, from time to time, add, upgrade, or remove HP Equipment from Brocade's site during the Term. All HP Equipment received by Brocade during the Term will be described in an amended HP Equipment Schedule signed by Brocade and appended to this Equipment Loan Agreement. Brocade agrees, by its receipt of HP Equipment, that all HP Equipment is subject to the provisions of this Agreement.
- - TERM. This Agreement will begin as of the Effective Date and run for a term of [*] or the completion of [*] (the "Term"), unless earlier terminated by HP or Brocade upon [*] written notice to the other. HP may in writing extend the Term, or establish a separate Term with respect to particular items of HP Equipment.
- - USE. Brocade may use the HP Equipment solely for purpose of performing testing services in support of the HP NSSO/SNS Testing. Brocade may not use this equipment or offer testing services to any third party or other HP Divisions or Entities without express written permission from the SNS division of HP. Brocade may not move any HP Equipment from the location specified in the HP Equipment Schedule without the prior written consent of HP. Brocade's right to use the HP Equipment is non-transferable.
- - SOFTWARE AND DOCUMENTATION. All software provided with the HP Equipment is hereby licensed to Brocade Under HP's Software License Terms, a current form of which is attached as Exhibit B. If Brocade requires a license to use any software other than as stated in the Software License Terms, that license must be specified in the HP Equipment Schedule. Any documentation listed in the HP Equipment Schedule is licensed to Brocade for its use solely for tile purposes stated in Section 3 above. If Brocade wishes to make copies of any documentation, it must first obtain HP's prior written consent.
- - OWNERSHIP. HP retains all right, title and ownership to the HP Equipment, unless any such HP Equipment is purchased by Brocade. Brocade hereby nominates and appoints HP as its attorney-in-fact for the sole purpose of executing and filing, on Brocade's behalf, UCC-1 financing statements (and any appropriate amendments thereto) or a suitable substitute document (including this Agreement) under the provisions of the Uniform Commercial Code for the HP Equipment loaned to Brocade hereunder. If requested by HP, Brocade will affix any label or marking supplied by HP evidencing HP's ownership of the HP Equipment. HP may, from time to time, inspect the HP Equipment. Brocade may not sell, transfer, assign, pledge, or in any way encumber or convey the HP Equipment or any portion or component of such equipment.
- - WARRANTY DISCLAIMER. ALL HP EQUIPMENT IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Brocade understands that some newly manufactured HP equipment may contain remanufactured parts equivalent to new in performance.
- - INDEMNIFICATION. Brocade hereby agrees to defend, indemnify and hold HP harmless from any claims or suits against HP arising From Brocade's use of the HP Equipment, including use by its employees, agents or subcontractors. Brocade will pay [*] incurred by HP and will pay [*] with respect to any such claim or agreed to in any settlement.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- - MAINTENANCE. During the Term, Brocade will maintain all HP Equipment in good operating order and condition. All maintenance must be provided by personnel authorized by HP. HP will provide standard installation, support and maintenance for the HP Equipment [*] to Brocade during the Term; however, [*] due to Brocade's negligence will be borne by Brocade. Brocade will be responsible for providing HP personnel ready and safe access to the HP Equipment for such maintenance and support.
- - RISK OF LOSS. Brocade will bear [*] risk of loss with respect to the HP Equipment from receipt until such HP Equipment is returned to HP. All HP Equipment returned to HP must include the same components as received by Brocade, and must be in good operating order and condition. Charges may be imposed by HP if Brocade fails to return the HP Equipment in such condition or within the return timeframe set forth herein.
- - SHIPPING COSTS. Unless otherwise agreed in writing by HP, Brocade will be responsible for and pay [*] with respect to the delivery or return of any HP Equipment hereunder.
- - LIMITATION OF LIABILITY. HP WILL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY, ARISING OUT OF THIS EQUIPMENT LOAN AGREEMENT OR BROCADE'S USE OF THE HP EQUIPMENT.
- - TERMINATION. Upon expiration or earlier termination of the Term, Brocade will return to HP all HP Equipment within [*]. HP may permit Brocade to purchase certain items of the HP Equipment upon termination under the purchase terms set forth below. In the event that Brocade is permitted to purchase any of the HP Equipment and fails to return that Equipment to HP upon expiration of the Term within such [*] period, Brocade will be deemed to have elected to purchase the LIP Equipment, and HP will invoice Brocade accordingly.
- - PURCHASE OPTION. If HP permits Brocade to purchase any of the HP Equipment, Brocade may elect to purchase those items of the HP Equipment Under HP's then current standard terms and conditions. Upon purchase, such HP Equipment will be provided with HP's then current standard warranty provisions for used equipment. The purchase price for HP Equipment purchased under tills Section will be [*]. No other promotional or purchase discounts will apply. Such purchase will not quality for any stock rotation or price protection under any other agreement which Brocade may have with HP.
- - GENERAL PROVISIONS.
 - Notices. All notices to be given under this Agreement must be in writing and addressed to the location specified in the Master Agreement or as designated in the opening paragraph of this Agreement if there is no Master Agreement. Notices are validly given upon the earlier of confirmed receipt by the receiving party or three days after dispatch by courier or certified mail, postage prepaid, properly addressed to the receiving party. Notices may also be delivered by telefax and will be validly given upon oral or written confirmation of receipt. Either party may change its address for purposes of notice by giving notice to the other party in accordance with these provisions.
 - No Assignment. Neither this Agreement nor any right, privilege, license or obligation set forth herein may, be assigned, transferred or shared by Brocade without HP's prior written consent, and any such attempted assignment or transfer is void. Any merger, consolidation, reorganization, transfer of substantially all assets of Brocade or other change in control or ownership of Brocade will be considered an assignment for the purposes of this Agreement.
 - Entire Agreement. This Agreement and the attached Exhibits comprise tile entire understanding between the parties with respect to its subject matter and supersede any previous communications,

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

representations, or agreements, whether oral or written. No modification of this Agreement will be binding on either party unless in writing and signed by an authorized representative of each party.

- Governing Law. This Agreement will be governed in all respects by the laws of the State of California without reference to any choice of laws provisions, as though this Agreement were entered into by residents of that State to be wholly performed within that State. The parties hereby waive any application of the United Nations Convention on Contracts for the International Sale of Goods (as promulgated in 1980 and any successor or subsequent conventions) with respect to the performance or interpretation of this Agreement.

APPROVED AND AGREED:

BROCADE: _____

HEWLETT-PACKARD COMPANY

By: /s/ Charles Smith

By: /s/ Martin D. King

Print Name: Charles Smith

Print Name: Martin D. King

Title: VP, Worldwide Sales

Title: Functional Manager

SNS Solutions
Development Organization

EXHIBIT B
HP SOFTWARE LICENSE TERMS

EXHIBIT (E)
Page 5 of 8

HP EQUIPMENT LOAN AGREEMENT

ATTENTION: UPON PURCHASE OF AND PAYMENT FOR THE SOFTWARE LICENSE, USE OF THE SOFTWARE IS SUBJECT TO THE HP SOFTWARE LICENSE TERMS SET FORTH BELOW, USING THE SOFTWARE INDICATES YOUR ACCEPTANCE OF THESE LICENSE TERMS. IF YOU DO NOT ACCEPT THESE LICENSE TERMS, YOU MAY RETURN THE SOFTWARE FOR A FULL REFUND. IF THE SOFTWARE IS BUNDLED WITH ANOTHER PRODUCT, YOU MAY RETURN THE ENTIRE UNUSED PRODUCT FOR A FULL REFUND.

HP SOFTWARE LICENSE TERMS

Upon purchase of and payment for the appropriate software license, the following License Terms govern your use of the accompanying Software unless you have a separate written agreement with HP.

LICENSE GRANT. HP grants you a license to Use one copy of the Software. "Use" means storing, loading, installing, executing or displaying the Software. You may not modify the Software or disable any licensing, or control features of the Software. If the Software is licensed for "concurrent use", you may not allow more than the maximum number of authorized users to Use the Software concurrently. Additional license restrictions if any, for HP OpenView products are contained in "Additional License Restrictions" as attached.

OWNERSHIP. The Software is owned and copyrighted by HP or its third party suppliers. Your license confers no title to, or ownership in, the software and is not a sale of any rights in the Software. HP's third party suppliers may protect their rights in the event of any violation of these License Terms.

COPIES AND ADAPTATION. You may only make copies or adaptations of the Software for archival purposes or when copying or adaptation is an essential step in the authorized Use of the Software. You must reproduce all copyright notices in the original Software on all copies or adaptations. You may not copy the Software onto any public network.

NO DISASSEMBLY OR DECRYPTION. You may not disassemble or decompile the Software unless HP's prior written consent is obtained. In some jurisdictions, HP's consent may not be required for limited disassembly or decompilation. Upon request, you will provide HP with reasonably detailed information regarding any disassembly or decompilation. You may not decrypt the Software unless decryption is a necessary part of the operation of the Software.

TRANSFER. Your license will automatically terminate upon any transfer of the Software. Upon transfer, you must deliver the Software, including any copies and related documentation, to the transferee. The transferee must accept these License Terms as a condition to the transfer.

TERMINATION. HP may terminate your license upon notice for failure to comply with any of these License Terms. Upon termination, you must immediately destroy the Software, together with all copies, adaptations and merged portions in any form.

EXPORT REQUIREMENTS. You may not export or re-export the Software or any copy or adaptation in violation of any applicable laws or regulations.

U.S. GOVERNMENT RESTRICTED RIGHT. The Software and Documentation have been developed entirely at private expense. They are delivered and licensed as "commercial computer software" as defined in DFARS 252.227-7013 (Oct 1988), DFARS 252.211-7015 (May 1991) or DFARS 252.227-7014 (Jun 1995), as a "commercial item" as defined in FAR 2.101 (a), or as "Restricted computer software" as defined in FAR 52.227-19 (Jun 1987) (or any equivalent agency regulation or contract clause), whichever is applicable. You have only those rights provided for such Software and Documentation by the applicable FAR or DFARS clause or the HP standard software agreement for the product involved.

ADDITIONAL LICENSE RESTRICTIONS FOR HP OPENVIEW STORAGE AREA MANAGER SOFTWARE

You are granted the right to install and use the Software for management of your SAN in accordance with the storage based licensing policy. You are only granted the right to manage as much storage as your license allows (specified in your HP Entitlement Certificate). Exceeding that limit is a violation of this license agreement.

ADDITIONAL LICENSE RESTRICTIONS FOR ANY EMBEDDED HP-UX RUNTIME ENVIRONMENT FOR
JAVA SOFTWARE

* License to Distribute HP-UX Runtime Environment for Java (tm). You are granted a royalty-free right to reproduce and distribute the HP-UX Runtime Environment for Java provided that you distribute the HP-UX Runtime Environment for Java complete and unmodified, only as a part of, and for the sole purpose of running your Java compatible applet or application into which the HP-UX Runtime Environment for Java is incorporated.

* Java Platform Interface. Licensee may not modify the Java Platform Interface ("JPI," identified as classes contained within the "java" package or any subpackages of the "java" package), by creating additional classes within the JPI or otherwise causing the addition to or modification of the classes in the JPI. In the event that Licensee creates any Java-related API and distributes such API to others for applet or application development, Licensee must promptly publish broadly, an accurate specification for such API for free use by all developers of Java-based software.

* You acknowledge the Software is not designed or intended for use in on-line control of aircraft, air traffic, aircraft navigation, or aircraft communications; or in the design, construction, operation or maintenance of any nuclear facility. HP disclaims any express or implied warranty of fitness for such uses.

* You may make the HP-UX Runtime Environment for Java accessible to application programs developed by you provided that the programs allow such access only through the Invocation Interface specified and provided that you shall not expose or document other interfaces that permit access to such HP-UX Runtime Environment for Java. You shall not be restricted hereunder from exposing or documenting interfaces to software components that use or access the HP-UX Runtime Environment for Java.

HP OPENVIEW STORAGE AREA MANAGER SOFTWARE
LIMITED WARRANTY STATEMENT

- * Duration of limited warranty: 90 clays from date of purchase.
- * HP warrants to you, the end customer, that the media upon which this product is recorded will be free from defects in materials and workmanship after the date of purchase for the period specified above. If HP receives notice of such defects during; the warranty period, HP will, at its option, either repair or replace products which prove to be defective.
- * HP warrants to you that the Software will not fail to execute its programming instructions after the date of purchase, for the period specified above, due to defects in materials and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace Software which does not execute its programming instructions due to such defects.
- * HP does not warrant that the operation of HP products will be uninterrupted or error free. If HP is unable, within a reasonable time, to repair or replace any product to a condition warranted, you will be entitled to a refund of the purchase price upon prompt return of the product. Alternatively, in the case of HP Software, you will be entitled to a refund of the purchase price upon prompt delivery to HP of written notice from you confirming destruction of the HP Software, together with all copies, adaptations, and merged portions in any form.
- * Warranty does not apply to defects resulting from: (a) improper or inadequate maintenance or calibration; (b) software, interfacing, parts or supplies not supplied by HP, (c) unauthorized modification or misuse; (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance. * Warranty does not apply to non-HP software supplied by third parties including the embedded HP-UX runtime environment for Java.
- * TO THE EXTENT ALLOWED BY LOCAL LAW. THE ABOVE WARRANTIES ARE EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION. WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED. HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE. Some Countries, states or provinces do not allow limitations on the duration of an implied warranty, so the above limitation or exclusion might not apply to you. This warranty gives you specific legal rights and you might also have other rights that vary from country to country, state to state, or province to province.
- * TO THE EXTENT ALLOWED BY LOCAL LAW. THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT TO THE EXTENT PROHIBITED BY LOCAL LAW. IN NO EVENT WILL HP OR ITS SUBSIDIARIES, AFFILIATES OR SUPPLIERS BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES (INCLUDING LOST PROFIT, LOST DATA, OR DOWNTIME COSTS), ARISING OUT OF THE USE, INABILITY TO USE, OR THE RESULTS OF USE OF THE SOFTWARE, WHETHER BASED IN WARRANTY, CONTRACT, TORT OR OTHER LEGAL THEORY, AND WHETHER OR NOT ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Your use of the Software is entirely at your own risk. Some Countries, states and provinces do not allow the exclusion or limitation of liability for incidental or consequential damages, so the above limitation may not apply you.
- * Except to the extent allowed by local law, these warranty terms do not exclude, restrict or modify, and are in addition to, the mandatory statutory rights applicable to the license of the software to you.
- * Warranty service may be obtained from the nearest 1-IP sales office or other location indicated in the owners manual or service booklet.

EXHIBIT (F)

CONFIDENTIAL DISCLOSURE AGREEMENT

In order to protect certain confidential information, HP and the Participant identified below, agree to the Following:

- - DEFINITIONS. A Discloser is a party disclosing confidential information. A Recipient is a party receiving disclosed confidential information. An Associate is a subsidiary, parent or corporate affiliate of Recipient, or a third party contractually bound to Recipient in accord with this Agreement.

- - AGREEMENT COORDINATOR. Each party designates the following person, if any, as its Agreement Coordinator for coordinating the disclosure or receipt of confidential information:

[*]

- - HP CONFIDENTIAL INFORMATION.

[*]

- - PARTICIPANT CONFIDENTIAL INFORMATION.

[*]

- - RECIPIENT'S OBLIGATIONS.

- Recipient will protect, and will ensure its participating Associates will protect, the disclosed confidential information by using the same degree of care, but no less than a reasonable degree of care, to prevent the unauthorized use, dissemination or publication of the confidential information its Recipient uses to protect its own confidential information of a like nature. Recipient may reassign its employees. Recipient will provide reasonable prior notice to Discloser if Recipient is required to disclose the confidential information under operation of law.

- Recipient will comply with all applicable export laws.

- - DISCLOSURE AND PROTECTION PERIODS. The Disclosure Period and the Protection Period start on the Begin Disclosure Date unless a different start date is specified. Recipient's obligations under Section 5(a) only apply to confidential information disclosed during the Disclosure Period. Recipient's obligations under Section 5(a) stop at the end of the Protection Period.

The Begin Disclosure Date is [*].

The Disclosure Period ends on [*]

The Protection Period ends on [*]

- - MARKING. Recipient's obligations under this Agreement extend only to confidential information that is

- itemized in Section 3(a) or 4(a); or

- both described generally in Section 3(a) or 4(a) and

- marked at the time of disclosure to show its confidential nature, or

- unmarked (for example, orally or visually disclosed) but treated as confidential at the time of disclosure, and designated to show its confidential nature in a written message sent to Recipient's Agreement Coordinator within thirty days after disclosure, summarizing the disclosed confidential information sufficiently for identification.

- - EXCLUSIONS. This Agreement imposes no obligation upon Recipient with respect to information that (a) was in Recipient's possession before receipt from Discloser, (b) is or becomes publicly known without breach by Recipient, (c) is rightfully received by Recipient from a third party without a duty of confidentiality, (d) is disclosed by Discloser to a third party without a duty of confidentiality on the third party, (e) is independently developed or learned by Recipient or (f) is disclosed by Recipient with Discloser's prior written approval.

[*]

- - CHOICE OF LAW. Without regard to choice of law provisions, this Agreement is governed by and will be construed in accordance with the laws of the State of New York and the USA unless if filled in here, then the laws of _____.

- - WARRANTY. Each Discloser warrants that it has the right to make the

disclosures under this Agreement. Each Recipient warrants that its participating Associates will protect disclosed confidential information in accordance with the terms of this Agreement. NO OTHER WARRANTIES ARE MADE BY EITHER PARTY UNDER THIS AGREEMENT. ANY CONFIDENTIAL INFORMATION DISCLOSED UNDER THIS AGREEMENT IS PROVIDED "AS IS."

- - MISCELLANEOUS. Neither party acquires any intellectual property rights under this Agreement except the rights granted in Sections 3, 4 and 9. This Agreement imposes no obligation on either party to purchase, sell, license, transfer or otherwise dispose of any technology, services or products. This Agreement does not create any agency or partnership relationship. All additions or modifications to this Agreement

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (F)
Page 1 of 2

must be made in writing, and must be signed by both parties. This Agreement may be signed in duplicate originals, or in separate counterparts, which are effective as if the parties signed to single original. A facsimile of an original signature transmitted to the other party is effective as if the original was sent to the other Party.

HP

PARTICIPANT

HEWLETT-PACKARD

BROCADE

(Address)

(Address)

(Address)

(Address)

By: /s/ Martin D. King

By: /s/ Charles Smith

(Financial Manager's Signature)

(Authorized Signature)

Martin D. King

Charles Smith

(Name)

(Name)

Product Engineering Center Manager

VP, OEM Sales

(Title)

(Title)

EXHIBIT (G)

RECIPIENTS FOR RECEIPT OF NOTICES

FOR HP:

BUSINESS CONTACT:
[*]
8000 Foothills Blvd.
[*]
Roseville, CA 95747

[*]

Technical Contact:
[*]
8000 Foothills Blvd.
[*]
Roseville, CA 95747

[*]

[*]

FOR SUPPLIER:

BUSINESS CONTACT:
[*]
1745 Technology Drive
San Jose, CA 95110
[*] @brocade.com

TECHNICAL CONTACT:

[*]
1745 Technology Drive
San Jose, CA 95110
[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE [*]
SUPPLIER QUALITY/RELIABILITY
REQUIREMENTS DOCUMENT

Model Numbers:
TBD - [*]
Supplier: Brocade

DOCUMENT REVISION HISTORY

REVISION #	DATE	DESCRIPTION
00	3/31/01	- Initial Release

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (H)

TABLE OF CONTENTS

1. PURPOSE.....4
2. DEFECTIVE PRODUCT.....4
2.1 [*].....4
3. [*] TEST PROCESS.....5
3.1 [*].....5
3.2 HP Incoming [*].....5
3.3 Dock-To-Stock.....5
3.4 Ooba Inspection5
4. FIELD QUALITY/ RELIABILITY.....6
4.1 AFR (Annual Failure Rate).....6
5. FAILURE ANALYSIS EXPECTATIONS.....6
6. QUALITY DATA EXPECTATIONS.....6
6.1 HP'S Responsibility6
6.2 Supplier's Responsibility7
 [*] Reports.....7
 Other Reports.....8
7. COMMUNICATION EXPECTATIONS.....8
7.1 PRODUCT Changes REQUIRING HP Approval.....8
7.2 Process Changes Requiring HP Approval.....8
7.3 Shipment Hold Notification.....8
7.4 [*].....9
8.0 SUPPLIER QUALITY SYSTEM.....9

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (H)

1. PURPOSE

The purpose of this Qualim/Reliability Requirements Document is to establish an understanding and agreement between Hewlett-Packard (HP) and Seller with regard to quality and reliability expectations and responsibilities. The terms Supplier and Seller are used interchangeably in this Quality/Reliability Requirements Document. It is HP's objective to receive Product of the [*]. The Product must consistently [*] the requirements of this document and the individual specifications applicable to each Product. It is HP's expectation that Supplier shall strive to ship defect-free, fully tested Product as measured at the first operational test at HP. Repaired units are subject to the same Product Specifications as when originally shipped.

HP's objective is to work in close cooperation with Supplier to resolve any quality issue, and expects the Supplier to work diligently to resolve any quality issue.

2. DEFECTIVE PRODUCT:

HP shall inform Supplier of any units or lots that fail, and provide Supplier with yield percentages. Defective units or lots will be shipped to Supplier's facility as instructed by Supplier. Supplier shall test and verify all failed units, and provide the data of failure symptoms observed or NTF (No Trouble Found), on all units returned from HP worldwide manufacturing sites.

2.1 [*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (H)

[*]

[*] 3. [*] TEST PROCESS

3.1 [*] [*]

First production shipment to HP will be [*][*] listed in the Configuration Specification. The [*][*] will include a review of the following items:

- Packaging (check for damage during shipment)
- Identification (labeling of product and package)
- Content (proper components in the package)
- Configuration (correct revisions, jumper settings, etc)

3.2 HP INCOMING [*]

All new suppliers must demonstrate relevant process control through a quality system [*]. HP shall thoroughly [*] the [*] units received from the Supplier. If there are any functional failures or cosmetic failures HP has the right to [*] the Supplier's manufacturing process immediately.

Incoming [*] will include a review of the following items:

- Packaging (check for damage during shipment)
- Identification (labeling of product and package)
- Content (proper components in the package)
- Configuration (correct revisions, jumper settings, etc)
- Operation (HP manufacturing test)

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (H)

- Firmware level and license key.

All failures require a corrective action report completed by the Supplier within [*] after notification. If the Supplier needs the defective unit to determine the root cause, the Supplier shall complete a [*] report within [*] after receipt of the defective unit(s). The report shall contain detailed explanation of the root cause and [*] performed. HP shall verify the report during the audit.

3.3 DOCK-TO-STOCK

Product will move to Dock-To-Stock status after successful completion of [*] as listed in Section 3.2. Upon successful completion of [*] and [*], subsequent shipments will not be inspected as they are received by HP-NSSO.

3.4 OOBA INSPECTION

OOBA is performed after a [*] final Inspection on the BROCADE manufacturing line. The focus of OOBA is to screen for failures, rectify any lots with problems, and implement [*] based on the observed failures.

The In-Process Acceptance Limit has been established and specified in the following chart. The In-Process Lot Sample Inspection shall be used when determining the Q1 score for the TQRDC/E review.

PART DESCRIPTION	PART NUMBER	DPM UPPER LIMIT
[*]	TBD	[*]

If the DPM goal is not met, Brocade will provide [*] and [*] the manufacturing process (and/or contract supplier process if necessary) and hold [*] until [*] the stated goal.

[*]

4. FIELD QUALITY / RELIABILITY

4.1 AFR (ANNUAL FAILURE RATE)

The AFR Limits are defined in the following AFR Chart. The Field Failure Rate (AFR) Limit shall be used when determining the Q2 score for the TQRDC/E review.

PART DESCRIPTION	HP REPLACEMENT PART NUMBER	FIELD FAILURE RATE (AFR) LIMIT
[*]	TBD	[*]

These number do not include [*].

5. FAILURE ANALYSIS EXPECTATIONS

Supplier shall test and verify all unit failures returned by HP worldwide manufacturing organizations, HP field or found in Brocade's manufacturing line. The supplier shall promptly institute the [*] report and [*] that may be required to prevent any further rejects for such cause.

[*] first evaluation shall be completed to the component level within [*] after receipt of the unit at Brocade. If problem cannot be detected with typical diagnostic tests and burn-in/stress testing is required, then an evaluation report will be sent within [*] of receipt of unit. Complete [*] report will be completed in [*] and sent to OEM Engineering at HP.

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

6. QUALITY DATA EXPECTATIONS

Quality data supplied by Supplier shall include, but not be limited to, [*] and [*] regarding failures.

6.1 HP'S RESPONSIBILITY

HP shall inform Supplier of In-Process Failures that occur at [*] on a [*] basis.

6.2 SUPPLIER'S RESPONSIBILITY

[*] REPORTS

Supplier shall provide the following reports to HP-LASSO s OEivl Engineer on a [*] basis:

- [*] of all reports contained in following [*] report section.printed: Supplier shall provide the following reports to HP-NSSO's Mass Storage OEM Engineers on a [*] basis:

[*]

OTHER REPORTS

Supplier shall provide the following additional information to the HP Fibre Channel OEM Engineer.

- [*] upon completion.

7. COMMUNICATION EXPECTATIONS

7.1 PRODUCT CHANGES REQUIRING HP APPROVAL

The evaluation period for changes is covered in the HP/Brocade Purchase Agreement. The intent is to allow HP [*] to review the proposed change and Supplier [*] and to perform [*], if necessary. Supplier must [*] of upcoming changes in order to assure a smooth implementation. Changes must be communicated in writing in the form of an Engineering Change Request (ECR) document and sent to the OEM Engineer. Changes that must be communicated in writing are:

[*]

- - [*]

7.2 PROCESS CHANGES REQUIRING HP APPROVAL

Supplier shall notify HP of any major changes to the manufacturing process in [*] proposed implementation. These include:

1. [*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

7.3 SHIPMENT HOLD NOTIFICATION

Supplier shall notify HP verbally of any line-down or ship hold situations that will adversely affect HP shipments or HP's installed base within [*] of such situation occurring. A written analysis of I-IP's inventory exposure and a recover, plan, if applicable, shall be provided within [*] of such situation occurring.

7.4 [*]

Supplier will maintain a [*] with HP to address all open issues and will [*].

8. SUPPLIER QUALITY SYSTEM

[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (H)

EXHIBIT (I)
HP END USER SOFTWARE LICENSE AGREEMENT

ATTENTION NOTICE

ATTENTION: USE OF THE SOFTWARE IS SUBJECT TO THE HP SOFTWARE LICENSE TERMS CONTAINED IN THE ACCOMPANYING DOCUMENTATION. USING THE SOFTWARE INDICATES YOUR ACCEPTANCE OF THESE LICENSE TERMS. IF YOU DO NOT ACCEPT THESE LICENSE TERMS, YOU MAY RETURN THE SOFTWARE FOR A FULL REFUND. IF THE SOFTWARE IS BUNDLED WITH ANOTHER PRODUCT, YOU MAY RETURN THE ENTIRE UNUSED PRODUCT FOR A FULL REFUND.

EXHIBIT (I)
Page 1 of 2

ATTENTION: USE OF THE SOFTWARE IS SUBJECT TO THE HP SOFTWARE LICENSE TERMS SET FORTH BELOW. USING THE SOFTWARE INDICATES YOUR ACCEPTANCE OF THESE LICENSE TERMS. IF YOU DO NOT ACCEPT THESE LICENSE TERMS, YOU MAY RETURN THE SOFTWARE FOR A FULL REFUND. IF THE SOFTWARE IS BUNDLED WITH ANOTHER PRODUCT, YOU MAY RETURN THE ENTIRE UNUSED PRODUCT FOR A FULL REFUND.

HP SOFTWARE LICENSE TERMS

The following License Terms govern your use of the accompanying Software unless you have a separate written agreement with HP.

LICENSE GRANT. HP grants you a license to Use one copy of the Software. "Use" means storing, loading, installing, executing or displaying the Software. You may not modify the Software or disable any licensing or control features of the Software. If the Software is licensed for "concurrent use", you may not allow more than the maximum number of authorized users to Use the Software concurrently.

OWNERSHIP. The Software is owned and copyrighted by HP or its third party suppliers. Your license confers no title or ownership and is not a sale of any rights in the Software, its documentation or the media on which they are recorded or printed. Third party suppliers may protect their rights in the Software in the event of any infringement.

COPIES AND ADAPTATIONS. You may only make copies or adaptations of the Software for archival purposes or when copying or adaptation is an essential step in the authorized Use of the Software on a backup product, provided that copies and adaptations are used in no other manner and provided further that Use on the backup product is discontinued when the original or replacement product becomes operable. You must reproduce all copyright notices in the original Software on all copies or adaptations. You may not copy the Software onto any public or distributed network.

NO DISASSEMBLY OR DECRYPTION. You may not disassemble or decompile the Software without HP's prior written consent. Where you have other rights under statute, you will provide HP with reasonably detailed information regarding any intended disassembly or decompilation. You may not decrypt the Software unless necessary for the legitimate use of the Software.

TRANSFER. Your license will automatically terminate upon any transfer of the Software. Upon transfer, you must deliver the Software, including any copies and related documentation, to the transferee. The transferee must accept these License Terms as a condition to the transfer.

TERMINATION. HP may terminate your license upon notice for failure to comply with any of these License Terms. Upon termination, you must immediately destroy the Software, together with all copies, adaptations and merged portions in any form.

EXPORT REQUIREMENTS. You may not export or re-export the Software or any copy or adaptation in violation of any applicable laws or regulations.

U.S. GOVERNMENT RESTRICTED RIGHTS. The Software and any accompanying documentation have been developed entirely at private expense. They are delivered and licensed as "commercial computer software" as defined in DFARS 252.227-7013 (Oct. 1988), DFARS 252.211-7015 (May 1991) or DFARS 252.227-7014 (Jun 1995), as a "commercial item" as defined in FAR 2.101(a), or as "Restricted computer software" as defined in FAR 52.227-19 (Jun 1987) (or any equivalent agency regulation or contract clause), whichever is applicable. You have only those rights provided for such Software and any accompanying documentation by the applicable FAR or DFARS clause or the HP standard software agreement for the product involved.

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (J)
Page 1 of 4

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (J)
Page 2 of 4

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (J)
Page 3 of 4

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (J)
Page 4 of 4

AMENDMENT NO. 1 TO
OEM PURCHASE AGREEMENT

This Amendment No. 1 (the "Amendment") to the OEM Purchase Agreement dated April 20, '2001 by and between HEWLETT-PACKARD COMPANY, a Delaware corporation ("HP") and BROCADE COMMUNICATIONS SYSTEMS, INC., a Delaware corporation, having its principal place of business at 1745 Technology Drive, San Jose, California 95110, and Brocade Communications Switzerland SarL, a corporation organized under the laws of Geneva, and having its principal place of business at 29-31 Route de l'Aeroport, CH-1205 Geneva, Switzerland (collectively "Supplier") (the "Agreement") is entered into by HP and Supplier effective as of July 1, 2001 (the "Effective Date"). The parties hereby agree as follows.

Except as expressly amended herein all unmodified and remaining terms and conditions of the Agreement shall remain in full force and effect. All capitalized terms not defined in this Amendment shall have the meaning set forth in the Agreement.

WHEREAS, HP and Supplier wish to amend certain provisions of the Agreement to provide revised pricing.

NOW THEREFORE, the parties hereto agree as follows:

Section 1. Amendment to page 2 of 5 of Exhibit C of the Agreement. :
Page 2 of Exhibit C to the Agreement is hereby deleted in its entirety and replaced with the revised Page 2 as set forth in Exhibit A attached hereto.

AGREED:

BROCADE COMMUNICATIONS
SYSTEMS, INC.

By: /s/ Jack Cuthbert
Name: Jack Cuthbert
Title: VP Worldwide Marketing,
Sales and Support

HEWLETT-PACKARD COMPANY

By: /s/ Don Kleinschnitz
Name: Don Kleinschnitz
Title: GM SNS Hewlett-Packard

BROCADE COMMUNICATIONS
SWITZERLAND, SARL.

29, route de l'Aeroport, CP 105
1211 Geneve 15

By: /s/ Jean Marie Mathiot
Name: Jean Marie Mathiot
Title: Vice President EMEA

EXHIBIT A

Software Delivery. All Software provided by Supplier under this Agreement shall be offered to HP [*]

Software Licenses. All Software license OEM Products listed in this Exhibit (C) shall include HP's right to [*] will be due for any package item subsequently [*].

SILKWORM 6400 AGGREGATOR FC SWITCH OEM PRODUCT PRICING.

HP PART DESCRIPTION: HP Surestore FC-6400 (64-Port Fibre Channel Fabric Switch)

SUPPLIER MODEL NO./DESCRIPTION: [*]

[*]	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

BROCADE FABRIC SOFTWARE OEM PRODUCT PER-COPY FEES.

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO./DESCRIPTION: [*]

HP per-license fee: [*]

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO./DESCRIPTION: [*]

HP per-license fee: [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO./DESCRIPTION: [*]

HP per-license fee: [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 1
Page 3 of 3

AMENDMENT NO. 2 TO
OEM PURCHASE AGREEMENT

This Amendment No. 2 (the "Amendment") to the OEM Purchase Agreement (the "Agreement") dated April 20, 2001 by and between HEWLETT-PACKARD COMPANY, a Delaware corporation ("HP") and BROCADE COMMUNICATIONS SYSTEMS, INC., a Delaware corporation, having its principal place of business at 1745 Technology Drive, San Jose, California 95110, and Brocade Communications Systems Switzerland SarL, a corporation organized under the laws of Geneva, and having its principal place of business at 29-31 Route de l'Aeroport, CH-1205 Geneva, Switzerland (collectively "Supplier") is entered into by HP and Supplier effective as of November 6, 2001, (the "Effective Date"). This Amendment is a Product Addendum as described in Section 2.18 of the Agreement. The parties hereby agree as follows.

Except as expressly amended herein all unmodified and remaining terms and conditions of the Agreement shall remain in full force and effect. All capitalized terms not defined in this Amendment shall have the meaning set forth in the Agreement. In the event a conflict between the Agreement and this Amendment, the terms of this Amendment shall govern.

WHEREAS, HP and Supplier wish to add additional OEM Products, and terms specific to those additional products.

NOW THEREFORE, the parties hereto agree as follows:

1. TRAINING

- 1.1 Technical & Presales Training. Supplier shall provide to HP, at [*] in Supplier's technical training course on installation and configuration of the Silkworm 3800. Such training shall take place at Supplier's San Jose location and within [*] prior to, and [*] after HP's product launch. In addition, Supplier shall provide to HP, at [*] per HP's [*] for the term of this Agreement, in Supplier's technical training course on installation and configuration of the Silkworm 3800.

All such training provided by Supplier will be [*] by Supplier to HP. Supplier will maintain a designated training contact for HP University personnel, and will provide technical support for, and a qualified Supplier training resource to participate in, the first [*] taught by HP utilizing the training provided hereunder by Supplier. Such classes will be up to [*] in length. HP will be responsible for reasonable travel and expenses incurred by the Supplier training resource. Other training (including without limitation [*] technical training) will be provided upon mutually agreed terms and conditions.

- 1.2 HP's License to Training Materials. Subject to the provisions of Article (19) of the Agreement Supplier will provide to HP, [*] portions referred to as "Training Materials"). Supplier will provide [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*] of the Silkworm 3800 to HP [*]. HP will then indicate to Supplier which of the portions of such materials HP would like to license. Once the [*] for which HP will receive a license, Supplier will provide the Training Materials [*] Supplier shall provide such Training Materials to HP no later than November 30, 2001. Supplier hereby grants to HP, under Supplier's copyright and trade secret rights, a non-exclusive, worldwide license to [*] of the Training Materials solely for use in conjunction with HP's delivery of internal training relative to the Silkworm 3800. The right to [*] is granted solely for the purpose of combining the Training Materials with HP produced instructional materials, and formatting and preparing the Training Materials for training delivery. Except as provided in this Section 1.2, HP may [*] No portion of the Training Materials may be offered for resale by HP or used by HP to offer courses other than to HP employees.

- 1.3 HP Trainer Certification. HP shall use reasonable [*] to ensure that [*] HP SNS personnel take and pass Supplier's "Fabric Professional" certification examination, no later than February 1, 2002. Such examinations will take place at a VUE location of HP's choice. Supplier will provide [*] to HP [*] vouchers valid for [*] each. If at least [*] of HP University's training personnel have not passed Supplier's "Fabric Professional" certification examination by March 15 1, 2002, Supplier may, at its sole option, suspend HP's license to Supplier's training materials, granted in article 1.2 herein, until such time as at least [*] of HP University's training personnel pass the examination.
- 1.4 HP Training Requirement. HP shall use its reasonable [*] to conduct, no later than March 15, 2002, internal training courses on the Silkworm 3800 sufficient to cover no less than [*] HP personnel in order to allow HP to become fully familiar with the Silkworm 3800 and its market. The HP resources may include but will not be limited to field and inside sales personnel, customer engineers, technical consultants, and HP University Trainers.
- 1.5 HP TRAINING DEMONSTRATION HARDWARE. HP SNS will make its reasonable [*] to provide Supplier with [*] of HP Demonstration Equipment to be hosted in Supplier's [*] facilities. For the purpose of this Agreement, HP Demonstration Equipment shall refer to HP [*] Hardware, of the current or recent generation of the applicable HP product. Each piece of HP Demonstration equipment will be provided under the terms of a separately executed HP Equipment Loan Agreement, the term of which shall be no less than [*].

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

2. DOCUMENTATION

- 2.1 Preparation of Documentation. Supplier shall prepare for HP and provide a [*] of Supplier's standard documentation for the Silkworm 3800 ("Documentation") [*] and in accordance with the provisions of Exhibit (A-5). Such Documentation will include planning, installation and operation, service and user guides, as enumerated in Exhibit (A-5). Supplier shall retain ownership of such Documentation.
- 2.2 License to Documentation. Supplier shall provide HP with master copies of the Documentation in both hard copy and electronic form. Except as otherwise provided and subject to the retention of all copyright notices and/or confidentiality legends, HP shall have the right to [*] for use internally by its employees, contract employees, and Resellers. HP shall have the right to [*] from the masters supplied to it by Supplier for distribution to purchasers of the HP version of the Silkworm 3800. HP shall not have the right to [*] except to [*] HP part numbers and or product names. HP shall provide Supplier with a copy of such [*] Product documentation for verification, and Supplier agrees to perform such verification on the first version of any release within [*] of receipt of such [*] Supplier's verification of the [*] Documentation is for Supplier's internal purposes only, and HP will not rely on such verification for any purposes. Further, HP shall have the right to distribute such Product documentation and software media to its Resellers and End User Customers. Such License shall continue during the Term of this Agreement and for [*] after the date of last shipment by HP of the Products purchased under this Amendment.

3. DEVICE PLUG-IN LICENSE

In the event that Supplier incorporates the same Management Information Base ("MIB") structure on the 3800 as is on the 2800 utilizing the same strategy of distinguishing between Supplier's existing devices, HP will use its reasonable [*] to perform the development and testing of a Device Plug-in ("DPI") applicable to HP's OpenView Storage software products to support the 3800, [*]. Supplier shall maintain a designated development contact for HP, and will provide reasonable technical support [*] and discretion for HP's development of a DPI for the Silkworm 3800.

In the event that Supplier incorporates a different MIB structure than the 2800, Supplier will use all reasonable efforts to support the Fibre Alliance MIB 3.0.

4. ENVIRONMENTAL

Notwithstanding the provisions of section 16 of the Agreement Supplier agrees that the Silkworm 3800 and its packaging will comply with HP's General Specifications for Environment, [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*], attached hereto as Exhibit (B) provided however that those provision(s) of HP's General Specifications for Environment relating to batteries should not apply.

5. HP EQUIPMENT [*]:

Upon the effective date of this Amendment, and continuing for a period of not less than [*], HP shall extend to Supplier a [*] of [*] of HP's [*] for [*] and related products, and [*] and related products. These [*] levels shall extend only to products procured by Supplier direct from HP's sales organization, for Supplier's internal production or testing use.

6. HP [*]:

For the term of the Agreement, HP shall [*] Supplier, on a [*], "[*] Data" relative to the OEM Products. Within [*] after the end of each [*] (beginning with January 2002), HP shall provide a [*] Data report covering [*] during that [*]. For the purposes of this Agreement, "[*] Data" shall refer only to: the [*], separated by [*] and by [*] (and if possible, [*] domestically, of each of the OEM Products [*] (as determined by the [*] [*]); the HP [*] for each of the Products [*] and the total [*] the Products [*] Such [*] shall be provided subject to the provisions of Article (19) of the Agreement.

For the purposes of this Amendment, [*] Data shall not include any [*] specific information.

7. HP MARKETING [*]

In [*] of Supplier's marketing activities related to Supplier's 2Gb fibre channel switching technology, HP shall provide [*] in the form of (1) an HP [*] in [*] of Supplier's 2Gb technology, which [*] shall be delivered in accordance with HP's standard [*] policy and no later than 12/31/01 and (2) an HP [*], delivered to Supplier no later than 11/3/01 in [*] of Supplier's 2Gb technology, which [*] may be referenced by Supplier in Supplier's [*]

8. HP BUSINESS CONTINUANCE PROGRAM

HP agrees to use its reasonable [*] to define a high value "Business Continuance" marketing program containing HP's XP512, VA7X00's, HP Surestore FC 6164, Extended Fabrics, Remote Switch, and HP's Disaster Recovery applications for the HPUX and NT environments. Deliverables will include [*] or more disaster recovery solution diagrams/slides utilizing the products and software applications mentioned above. Additionally, the [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

solutions shall include [*] positioning information. It is intended that the components of these solutions are already tested and can be supported by the key labs and HP support organizations. HP shall use its best reasonable efforts to complete the Deliverables and deliver the Deliverables to HP's front-end storage marketing organizations no later than 12/15/01. By 11/20/2001, HP will conduct a marketing meeting with Supplier to define the Deliverables, and the Deliverables will be defined within [*] after such meeting.

9. TERMINATION

In addition to the provisions in Article 22 of the Agreement, HP agrees that if this Amendment or the Agreement is terminated due to HP's breach, then HP will reimburse Supplier for its [*] to rework HP-customized Silkworm 3800 units back to Supplier's standard product, as described in exhibit (A-2) hereto. HP's duty to reimburse shall extend only to units within the [*] and to units for which HP-requested customization has begun or is completed, up to the number of units in the HP Forecasts as of the termination date.

10. EXHIBITS

Each of the following Exhibits referred to in this Amendment is incorporated in full in this Amendment wherever reference to it is made:

- AMENDMENT TWO - EXHIBIT (A) -- OEM PRODUCTS AND SPECIFICATIONS
 - (A-1) Supplier Product Specifications
 - (A-2) HP Configuration Specification Document
 - (A-3) HP Supplier Quality System Requirements
 - (A-4) Packaging
 - (A-5) Documentation
 - (A-6) OEM Product Interoperability Requirements

AMENDMENT TWO -- EXHIBIT (B) HP's General Specifications for Environment, [*]

AMENDMENT TWO -- EXHIBIT (C) -- PRICING AND FEES

AGREED:

BROCADE COMMUNICATIONS SYSTEMS, INC.	HEWLETT-PACKARD COMPANY
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE COMMUNICATIONS
SWITZERLAND, SARL.

By: -----
Name: -----
Title: -----

AMENDMENT TWO - EXHIBIT (A-1)
SUPPLIER PRODUCT SPECIFICATIONS

[PROVIDED IN PDF FORM; TO BE PRINTED IN SIGNATURE VERSION OF DOCUMENT.]

[GRAPHIC IMAGE APPEARS HERE]

AMENDMENT TWO - EXHIBIT (A-2)
HP CONFIGURATION SPECIFICATION DOCUMENT

Configuration Specification
for
Brocade's 3800 Network Switch

[GRAPHIC IMAGE APPEARS HERE]

Brocade 3800 Configuration Specification

Product Number: [*]

Model Numbers: [*]

Supplier: Brocade

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

1. Scope of Document

This document describes the expectations of how HP expects to receive the 2Gb Network Switch and all parts, devices and components associated with the switch. Typical expectations described in this document are:

- Part Numbering and Cross Referencing
- Configuration and revision
- Labeling
- Packaging

This document supercedes any specification described in the Supplier's Product Specification Documentation.

2. Hewlett-Packard's Product Requirements

2.1 SOURCING MATERIAL AS LOGICAL UNITS

All material shall be sourced as individual logical units as defined in section 3. A logical unit is one that will be consumed as a single item within a single process area or not consumed within the process area and can be set aside without impacting the integrity of the end product. See section 3 for definition and declaration of consumable and non-consumable material.

All logical units must be labeled (human readable and 3x9 barcode for scanning) with a part number, serial number (if applicable) and quantity (if shipped in bulk). See bar code information for more details. Individual part labeling is applicable to all parts except when individual labeling is impractical (e.g. screws, nuts, bolts, etc.).

ESD sensitive parts and material are to be packaged and labeled per industry standards.

Shipping cartons shall not contain mixed logical units. Each shipping carton may contain a maximum of one purchase order line item or part number.

2.2 BAR CODE REQUIREMENTS

- The bar code symbol bar shall be Code 39 (also known as "Code 3 of 9") as specified by the AIM Uniform Symbology Specification Code 39.
- The symbol bar shall start with a minimum "Quiet Zone" of .25 inches and an asterisk "Start" character (* in Code 39) where applicable (no adjacent labels). The symbol shall end in the asterisk followed again by a minimum .25 inches of "Quiet Zone".
- The bar code height shall be .125 inches (minimum).

2.3 POWER CORDS

Power cords have strict sourcing requirements. Power cords may only be sourced from HP specified vendors and only under the HP part number. No other power cord shall be considered. Because of these requirements, it is not necessary to include power cords with the 6400 switch.

3.0 NSSO Purchased Parts

MODEL NUMBER [*]
 PART NUMBER: [*]
 DESCRIPTION: BASE UNIT

MODEL NUMBER: [*]
 PART NUMBER: [*]
 DESCRIPTION: PERFORMANCE UPGRADE
 OPT 001

LICENSES

Webtools	[*]	[*]
Zoning	[*]	[*]
Quickloop	[*]	[*]
Fabric Watch	[*]	[*]
Trunking		[*]
Perf. Monitoring		[*]
Extended Fabric		[*]
Remote Switch		[*]

HARDWARE

Accessory Kit	[*]	[*]
Rails	[*]	[*]
Power Cords	[*]	[*]
Manuals	[*]	[*]

SWITCH CONFIGURATION

Chassis Color	[*]	[*]
Bezel Color	[*]	[*]
Badge	[*]	[*]
Firmware	[*]	[*]
IP Address default	[*]	[*]
Subnetmask	[*]	[*]

4.0 Labels

Label	Description	Location
Serial Number	HP Format (SN and bar code) Base Unit: [*] Performance Upgrade: [*] See section 5.1 for details	Switch: top, rear, right dimple; centered

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Agency	HP customized See section 5.2	Switch: bottom, front in dimple; centered.
3800 Product label	HP Part Number and Bar code Base Unit: [*] [GRAPHIC IMAGE APPEARS HERE] Performance Upgrade [*] [GRAPHIC IMAGE APPEARS HERE] See section 5.3	Switch: top, rear, left dimple; centered.
Shipping label	Ship to Address Description HP Serial Number Revision HP Purchase Order Brocade PN CE mark GOST mark See section 5.7	Packaging: 2 labels per switch placed in opposite sides of packing box in upper right corner.
3800 P/S rating label	[*]	Switch (power supply): Top of power supply bezel, centered.
Over pack label	No change	Upper right corner of pallet on top of shrink wrap
IP address label	[GRAPHIC IMAGE APPEARS HERE]	Question: Will text be pad printed where IP label is placed?
Front panel overlay label	Background: Brocade default Text: Brocade default [GRAPHIC IMAGE APPEARS HERE]	Switch: Front of unit
Brocade Serial Number	No change	Switch: Vertically placed to left of left power supply.
Top cover removal/insertion label	Background: Brocade default Text: Brocade default [GRAPHIC IMAGE APPEARS HERE]	Switch: Centered in recessed area on top cover of enclosure

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

LED label

Background: Brocade default
Text: Brocade default
[GRAPHIC IMAGE APPEARS HERE]

Switch: On back of enclosure
between cooling trays

Warning label

[GRAPHIC IMAGE APPEARS HERE]

Switch: Right side, towards
front between screw thread holes.

Accessory Kit label

Accessory Kit, 2Gb 16 Port Switch
[*]
[GRAPHIC IMAGE APPEARS HERE]

Located on accessory kit box.
Must contain:
- Description
- HP P/N
- Bar code of P/N.

5.0 Labels

5.1 HP SERIAL NUMBER LABEL

See 2.3 for more details.

BASE UNIT

[*]

where US = Country of Manufacture
 B = Supplier ID, Brocade
 0 = Revision Number 0
 R = HP Product Name abbreviation
 XXXXX = sequential numeric counter to start with 00001 and not reset when revision number is changed.

PERFORMANCE UPGRADE

[*]

where US = Country of Manufacture
 B = Supplier ID, Brocade
 0 = Revision Number 0
 S = HP Product Name abbreviation
 XXXXX = sequential numeric counter to start with 00001 and not reset when revision number is changed.

CONTENT:

HP Serial Number format
Bar code (3x9) of serial number

Examples:

Base Unit

[*]

[GRAPHIC IMAGE APPEARS HERE]

Performance Upgrade

[*]

[GRAPHIC IMAGE APPEARS HERE]

LOCATION:

Switch: Top, rear (power supply side) of unit, in dimple to right of unit.

FONT: Same as HP part number label. 11 font.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

5.2 AGENCY LABEL

Note: These drawings are for reference only. The text of the label now states "surestore fc 1Gb/2Gb switch 16B" not "surestore fc switch 4316" as shown.

The label below shall be used once Korean Regulatory Approval is obtained.

[GRAPHIC IMAGE APPEARS HERE]

The label below shall be used until Korean Regulatory Approval is obtained.

[GRAPHIC IMAGE APPEARS HERE]

AGENCY LABEL PLACEMENT:

Bottom of unit, rear (towards power supplies) centered in dimple.

[GRAPHIC IMAGE APPEARS HERE]

5.3 3800 PRODUCT LABEL

CONTENT

HP Part Number Human Readable (either A7430-63001 or A7340-63004) Bar code (3x9) of HP part Number

Examples for:

Base Unit

[*]
[GRAPHIC IMAGE APPEARS HERE]

Performance Upgrade

[*]
[GRAPHIC IMAGE APPEARS HERE]

LOCATION

Switch: Top, rear (power supply slide) of unit in dimple to left of unit.

SIZE:

2.25"(h) x 2"(w) (maximum)

FONT: 11 and same as 3800 product label.

5.4 RATING LABEL

[GRAPHIC IMAGE APPEARS HERE]

Place rating label on top of power supply bezel, centered. Present location is left side of recessed area at the front of the power supply. It is obstructed and difficult to read in this location.

[GRAPHIC IMAGE APPEARS HERE]

5.5 ACCESSORY KIT LABEL

Accessory kit box must be labeled with the following:

- Description: Accessory Kit, 2Gb 16 Port Switch
- Part Number: [*]
- Bar Code of part number: [GRAPHIC IMAGE APPEARS HERE]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

5.6 BROCADE SHIPPING LABEL

The shipping label for A7340-63001 and A7340-63004 must contain the following fields:

- Ship to Address
- Description
- HP Serial Number
- Revision
- Purchase Order
- Brocade Part Number
- CE mark
- GOST mark

Example:

[GRAPHIC IMAGE APPEARS HERE]

Label location [GRAPHIC IMAGE APPEARS HERE]

6.0 Bezel Graphics

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

[GRAPHIC IMAGE APPEARS HERE]

Note: Brocade default color with Quartz Gray lettering

7.0 FRUs

Description	Supplier Part Number	HP Replacement Part Number	HP Exchange Part Number
Switch	[*]	[*]	[*]
Power Supply	[*]	[*]	[*]
Fan Module	[*]	[*]	[*]
Serial Cable	[*]	[*]	[*]

8.0 CD-ROM Artwork

[GRAPHIC IMAGE APPEARS HERE]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

BROCADE/HP CONFIDENTIAL
AMENDMENT TWO - EXHIBIT (A-3)
HP SUPPLIER QUALITY SYSTEM REQUIREMENTS

-- HEWLETT-PACKARD CO. --

This page provides a running history of changes for a multi-page drawing. List all changes below, referencing page number and section number, if applicable. Be concise when describing changes. If extensive revisions have been made, a general statement that the document has been "revised and redrawn" is permissible.

LTR.	REVISIONS	DATE	INITIALS OEM ENGINEER
-----	-----	-----	-----
A	Preliminary Draft	9/6/01	[*]
B	Updated Draft	11/02/01	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

[HEWLETT PACKARD LOGO]
HP PROPRIETARY

This document is the property of Hewlett-Packard Company (HP) and contains confidential and proprietary information of HP. Neither it, nor the information contained herein shall be disclosed to others, or duplicated, or used by other except as authorized by HP writing.

HP P/N: [*]

DATE: NOVEMBER 2, 2001

DESCRIPTION:
16 PORT 2GB 3800 SWITCH
SUPPLIER QUALITY/RELIABILITY REQUIREMENTS
DOCUMENT: QUALITY PLAN

BY: [*]

BROCADE 3800 2Gb SWITCH
SUPPLIER QUALITY/RELIABILITY
REQUIREMENTS DOCUMENT

Model Numbers:

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

A7340A/AZ -- 16 Port 2Gb 3800 Switch

Supplier: Brocade

DOCUMENT REVISION HISTORY

REVISION #	DATE	DESCRIPTION
-----	-----	-----
00	09/06/01	- Initial Release
01	11/02/01	- [*]
		[*]
		[*]
		[*]
		[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

TABLE OF CONTENTS

1.	PURPOSE	6
2.	DEFECTIVE PRODUCT:	6
2.1.	[*]	6
3.	[*] TEST PROCESS	7
3.1.	[*]	7
3.2.	HP INCOMING [*]	7
3.3.	DOCK-TO-STOCK	8
3.4.	OOBA INSPECTION	8
4.	FIELD QUALITY / RELIABILITY	9
4.1.	AFR (ANNUAL FAILURE RATE)	9
5.	FAILURE ANALYSIS EXPECTATIONS	9
6.	QUALITY DATA EXPECTATIONS	10
6.1.	HP'S RESPONSIBILITY	10

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

6.2.	SUPPLIER'S RESPONSIBILITY	10
	[*] REPORTS	10
	OTHER REPORTS	27
7.	COMMUNICATION EXPECTATIONS	11
7.1	PRODUCT CHANGES REQUIRING HP APPROVAL	11
7.2	PROCESS CHANGES REQUIRING HP APPROVAL	11
7.3	SHIPMENT HOLD NOTIFICATION	11
7.4	[*]	11
8.0	SUPPLIER QUALITY SYSTEM	11

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

PURPOSE

The purpose of this Quality/Reliability Requirements Document is to establish an understanding and agreement between Hewlett-Packard (HP) and the Supplier with regard to quality and reliability expectations and responsibilities. The terms Supplier and Seller are used interchangeably in this Quality/Reliability Requirements Document.

It is HP's objective to receive product of the [*]. The product must consistently [*] the requirements of this document and the individual specifications applicable to each Product. It is HP's expectation that Brocade shall strive to ship defect-free, fully tested product as measured at the first operational test at HP. Repaired units are subject to the same product specifications as when originally shipped.

HP's objective is to work in close cooperation with Brocade to resolve any quality issue and expects Brocade to work diligently to resolve any quality issue.

DEFECTIVE PRODUCT:

HP shall inform Brocade of any units or lots that fail, and provide Brocade with yield percentages. Defective units or lots will be shipped to Brocade's facility as instructed by Brocade. Brocade shall test and verify all failed units, and provide the data of failure symptoms observed or NTF (No Trouble Found), on all units returned from HP worldwide manufacturing sites.

[*]

[*]

[*]

[*]

[*]

[*]

[*]

[*]

[*]

[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]

[*] TEST PROCESS

[*] [*]

First production shipment to HP will be [*] at [*] listed in HP's Configuration Specification for the 3800 switch. The [*] [*] will include a review of the following items:

- a) Packaging (check for damage during shipment)
- b) Identification (labeling of product and package)
- c) Content (proper components in the package)
- d) Configuration (correct revisions, jumper settings, etc)

HP INCOMING [*]

Brocade's process control must be demonstrated through a [*] of all new product. HP shall [*] [*] units received from Brocade. If there are any functional failures or cosmetic failures HP has the right to [*] Brocade's [*].

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- [*]
- [*]
- [*]
- [*]
- [*]
- [*]
- [*]

All failures require a [*] report completed by Brocade within [*] after notification. If Brocade needs the defective unit to determine the root cause, then Brocade shall complete a [*] report within [*] after receipt of the defective unit(s). The report shall contain detailed explanation of the root cause and [*] performed. HP shall verify the report during the [*]

DOCK-TO-STOCK

The 3800 switch will move to Dock-To-Stock status after successful completion of [*] as listed in Section 3.2. Upon successful completion of [*] and [*] subsequent shipments will not be inspected as they are received by HP-NSSO.

OOBA INSPECTION

OOBA is performed after a [*] Final Inspection at Brocade's manufacturing line. The focus of OOBA is to screen for failures, rectify any lots with problems, and implement [*] based on the observed failures.

The In-Process Acceptance Limit has been established and specified in the following chart. The In-Process Lot Sample Inspection shall be used when determining the Q1 score for the TQRDC/E review.

PART DESCRIPTION -----	PART NUMBER -----	DPM UPPER LIMIT -----
[*]	[*]	[*]

If the DPM goal is not met, Brocade will provide [*] and [*] the manufacturing process (and/or contract supplier process if necessary) and hold [*] until [*] the stated goal.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

[*]

[*]

[*]

[*]

FIELD QUALITY / RELIABILITY
AFR (ANNUAL FAILURE RATE)

AFR is calculated as number of verified failures per annual installed based. The Field Failure Rate (AFR) Limit shall be used when determining the Q2 score for the TQRDC/E review.

PART DESCRIPTION	HP REPLACEMENT PART NUMBER	FIELD FAILURE RATE (AFR) LIMIT
-----	-----	-----
[*]	[*]	[*]

AFR limit does not include [*].

FAILURE ANALYSIS EXPECTATIONS

Supplier shall test and verify all unit failures returned by HP worldwide manufacturing organizations, HP field and failures found at Brocade's manufacturing line. Brocade shall promptly institute the [*] report and [*] that may be required to prevent any further rejects for such cause.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

OTHER REPORTS

Brocade shall provide the following additional information to the HP's Material Engineer.

- [*] upon completion.

COMMUNICATION EXPECTATIONS

7.1 PRODUCT CHANGES REQUIRING HP APPROVAL

The evaluation period for changes is covered in the HP/Brocade Purchase Agreement. The intent is to allow HP [*] to review the proposed change and supplier [*] and to perform [*], if necessary. Brocade must [*] [*] of upcoming changes in order to assure a smooth implementation. Changes must be communicated in writing in the form of an Engineering Change Request (ECR) document and sent to the OEM Engineer. Changes that must be communicated in writing are:

1. [*]
[*] [*]
[*]

7.2 PROCESS CHANGES REQUIRING HP APPROVAL

Brocade shall notify HP of any major changes to the manufacturing process in writing [*] prior to proposed implementation. These include:

- [*]
[*]
[*]
[*]

7.3 SHIPMENT HOLD NOTIFICATION

Brocade shall notify HP verbally of any line-down or ship hold situations that will adversely affect HP shipments or HP's installed base within [*] of such situation occurring. A written analysis of HP's inventory exposure and a recovery plan, if applicable, shall be provided within [*] of such situation occurring.

7.4 [*]

Brocade will maintain a [*] with HP to address all open issues and will [*]

8.0 SUPPLIER QUALITY SYSTEM

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

A. [*]

B. [*]

C. [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

BROCADE / HP CONFIDENTIAL
AMENDMENT TWO - EXHIBIT (A-4)
PACKAGING

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

[GRAPHIC IMAGE APPEARS HERE]

PARTS LIST
FOAM MATERIAL 2# PLM POLYETHYLENE FOAM
COLOR WHITE
STYLE: CORR/FOAM SNAP CRADLE PACK

PART A) FABRICATED PAD
SIZE: 2n x 4 x 4.4375
QTY: 3 PER SET

PART B) FABRICATED PAD
SIZE: 2n x 4 x 4.4375
QTY: 2 PER SET

PART C) FABRICATED PAD
SIZE: 2n x 30625 x 4
QTY: 4 PER SET

PART D) FABRICATED PAD
SIZE: 2n x 2.75 x 4
QTY: 2 PER SET

PART E) FABRICATED PAD
SIZE: 25n x 55 x 7.3125
QTY: 4 PER SET

PART F) FABRICATED PAD
SIZE: 2.5n x 2.75 x 4
QTY: 2 PER SET

PART G) FABRICATED PAD
SIZE: 2n x 3.1875 x ??
QTY: 4 PER SET

PART H) SPDC
MATERIAL: 200# C FLUTE KRAFT
SIZE: 60 x 22 KNOCKED DOWN
QTY: 1

PART I) OUTER CARTON (NOT SHOWN)

XPEDX
31129 WIEGMAN ROAD HAYWARD, CA 95444
PHONE: 800-468-0204 FAX: (510)-477-6622

	QTY. PER SET:		CLIENT:
	APPROVAL:	DATE:	BROCADE COMMUNICATION
TOLERANCE:	SCALE:	UNITS:	CUSTOMER:
1.125 UNLESS NOTED	NONE	INCH	PART#:
	MATERIAL/FINISH NOTED AS APPLICABLE		
NOTE:		XP=DX	CYLON
UNLESS OTHERWISE NOTED ALL UNITS ARE INCH RULE DIMENSIONS ARE VARIABLE UNTIL FINAL APPROVAL			FILE REF#:CYLON ASSEMBLY
			DRAFTER:??USTEN BAUSEWEIN
			DATE:08 08 01
			PAGE: 1 OF 3 REV#: B0

DO NOT SCALE DRAWING

[GRAPHIC IMAGE APPEARS HERE]

[GRAPHIC IMAGE APPEARS HERE]

- ??
- 1) ??
- 2) ??
- 3) ??
- 4) ??
- 5) ??
- 6) ??

XPEDX
31129 WIEGHAN ROAD HAYWARD, CA 95444
PHONE: 800-468-0204 FAX: (510)-477-6622

QTY. PER SET:	CLIENT:
APPROVAL:	BROCADE
DATE:	
TOLERANCE:	CUSTOMER:
# 125 UNLESS NOTED	
SCALE:	UNITS:
1:1	??
MATERIAL/FINISH NOTED AS APPLICABLE	PART #:
	NYLON FOAM
NOTE:	
UNLESS OTHERWISE NOTED:	
ALL UNITS ARE INCH RULE	
DIMENSIONS ARE VARIABLE	
UNTIL FINAL APPROVAL	
	XP=DX
	FILE REF#:CYLON FOAM
	DRAFTER:
	DATE: 8 08 01
	PAGE: 2 OF 3 / REV #: ??

Do not scale drawing.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

[GRAPHIC IMAGE APPEARS HERE]

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

[GRAPHIC IMAGE APPEARS HERE]

- ??
- 1.) ??
- 2.) ??
- 3.) ??
- 4.) ??
- 5.) ??
- 6.) ??

[*]

[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

[GRAPHIC IMAGE APPEARS HERE]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

EXHIBIT (A-5)
DOCUMENTATION

[*]

October 8, 2001

CONTENT CHANGES

[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]

STYLE AND FORMAT

[*]
[*]
[*]
[*]
[*]

PROCESS

[*]
[*]
[*]
[*]

DELIVERY

[*]
[*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

EXHIBIT (A-6) (ADDITION)
OEM PRODUCT INTEROPERABILITY REQUIREMENTS

This is an ADDITION to Exhibit (A-6) of the Agreement.

Based on the interoperability specifications and FC standards compliance outlined in EXHIBIT -- A6, the Supplier will make [*] the following heterogeneous switch configurations involving Brocade-3800 and fc-64 products [*] The configurations below assume same host and target connectivity and port topologies as defined in the test plan referenced in step 1) below. Supported features are outlined below.

As a correction to the version of EXHIBIT (A-6) appended to the Agreement as of the Agreement's Effective Date, if the mutually agreed upon configurations include a switch not manufactured by Supplier, then HP shall supply such switch.

As an update to the version of EXHIBIT (A-6) appended to the Agreement as of the Agreement's Effective Date, Supplier and HP acknowledge that the 1 Gbit IOP testing process specified in Exhibit (A-6) was not completed. Supplier and HP agree that the configurations specified in this Exhibit (A-6) (Addition), for which configurations the 5 step process below is successfully completed, will be supported by Supplier. The combination 1Gbit and 2Gbit configurations in this exhibit will supersede and replace the 1 Gbit configurations specified in EXHIBIT (A-6).

Below is the agreed upon process required for Supplier to support configurations containing fabrics with switches not manufactured by Supplier.

1) HP and Supplier define the mutually agreed upon configuration and test plan.

2) HP will supply to Brocade detailed test results they have completed. Detailed results will include but are not limited to:

- a) [*]
- b) [*]
- c) [*]
- d) [*]
- e) [*]
- f) [*]

3) Based on the detailed HP test results, Supplier will then define what additional testing is required to satisfy support requirements.

4) HP agrees to supply the non-Supplier manufactured switch equipment contained in the mutually agreed upon configurations for testing and bug replication. The non-Supplier manufactured switches will be loaned for the period that Supplier support is required by HP.

5) Once the tests are passed to HP and Supplier's satisfaction, Supplier agrees to support the configurations to the levels defined in the Agreement. If HP requests that Supplier support a configuration that includes non-Supplier manufactured switches that have not been provided to Supplier for test and bug replication purposes, then HP agrees Supplier will not be held to the Support response times defined in the Agreement. If these configurations produce mutually agreed upon test results, HP and Supplier agree to make commercially reasonable efforts to meet Support requirements in the Agreement.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

[GRAPHIC IMAGE APPEARS HERE]

[*]

[*]

[*]
[*]
[*]
[*]
[*]
[*]

[*]

[*]
[*]
[*]
[*]

[*]

[*] [*]
[*]
[*] [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

[*]

[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]

[*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

BROCADE / HP CONFIDENTIAL

AMENDMENT TWO - EXHIBIT (B)
HP'S GENERAL SPECIFICATIONS FOR ENVIRONMENT, [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 2 -- Rev 8.0 dated 11/07/2001- Tippens

SPECIFICATION CONTROL DRAWING

1. GENERAL

- 1.1 This specification provides Hewlett-Packard Company's (HP's) general requirements for either restricting or prohibiting certain chemical compounds as constituents of parts, components, materials and products purchased by HP worldwide, or prohibiting the use of certain compounds in the manufacture of parts, components materials and products purchased by HP worldwide.
- 1.2 This specification also provides HP's general requirements for recycling and disposal-marking and labeling of HP purchased parts, components, materials and products; in particular, for batteries.
- 1.3 This specification is not intended to be a listing of all product content limitations or restrictions that may be established as a matter of law. Seller's compliance with this specification does not relieve or diminish Seller's obligation to comply with all applicable laws.
- 1.4 This specification is in addition to, and does not in any way limit or supersede, any other product specifications that may be established by HP.
- 1.5 This specification contains the following sections:
 - 1.5.1 General
 - 1.5.2 Purpose
 - 1.5.3 General Product Content Restrictions
 - 1.5.4 Battery Content Restrictions
 - 1.5.5 Packaging Materials Content Restrictions
 - 1.5.6 Product Labeling and Marking Requirements
 - 1.5.7 New Chemical Registration Requirements
 - 1.5.8 Tables
 - 1.5.8.1 Ozone Depleting Substances Prohibited From Product Manufacturing Process
 - 1.5.8.2 Ozone Depleting Substances Prohibited From Products
 - 1.5.8.3 Polybrominated Biphenyl/Polybrominated Biphenyl Ether/Polybrominated Diphenyl Oxide (PBB/PBDE/PBDO) Flame Retardants Prohibited from Products
 - 1.5.8.4 Labeling Requirements for Batteries, and Products and Packaging Containing Batteries

Date: 09/29/99
Changes since previous issue noted
by approval: [*]

GENERAL
SPECIFICATION FOR
ENVIRONMENT

Page 1 of 8
[*]
Rev. D

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

SPECIFICATION CONTROL DRAWING

2. PURPOSE

The purpose of this specification is to present HP's general product content requirements for HP purchased parts, components, materials and products that HP sells or that are incorporated into the products HP sells.

3. GENERAL PRODUCT CONTENT RESTRICTIONS

The content restrictions specified in this Section apply to the specified compound as a constituent of all parts, components, materials or products purchased by HP. For additional product content restrictions applicable to batteries only, see Section 4. For additional product content restrictions applicable to packaging materials only, see Section 5.

3.1 Asbestos Restrictions

Asbestos must not be present in parts, components, materials or products.

3.2 Cadmium Restrictions

3.2.1 Cadmium must not be used as a stabilizer, coloring agent or as a surface coating treatment.

3.2.2 The total concentration of cadmium in parts, components, materials or products must not exceed 50 parts per million (50 PPM) by weight (50 mg/kg). This cadmium restriction does not apply to batteries.

3.2.3 Lead Restrictions in Paints

Lead carbonates and sulfates must not be used in any paint applied to parts, components, or products.

3.2.4 Mercury Restrictions

Mercury must not be contained in any part, material, component or product, including but not limited to switches, relays or electrical contacts. This mercury restriction does not apply to lamps with less than 10 mg of mercury.

3.3 Ozone Depleting Substances (ODS) Restrictions.

3.3.1 ODS Use in Product Manufacturing Process.

The ODS substances listed in Table 8.1 must not be used in the manufacturing process of any parts, components, materials or products.

3.3.1 ODS in Products Parts, Components, Materials and Products

The ODS substances listed in Table 8.2 must not be contained in any parts, components, materials or products.

Date: 09/29/99
Changes since previous issue noted
by approval: [*]

GENERAL
SPECIFICATION FOR
ENVIRONMENT

Page 2 of 8
[*]
Rev. D

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

SPECIFICATION CONTROL DRAWING

3.4 Polybrominated Biphenyls (PBBs) and Polybrominated Biphenyl Ethers (PBBEs)/ Polybrominated Biphenyl Oxides (PBBOs) Restrictions

Plastic parts, components, materials and products must not contain polybrominated biphenyls or polybrominated biphenyl ethers, also known as polybrominated biphenyl oxides, flame retardants. Specific PBBs and PBBEs, include but are not limited to, those listed in Table 3.3.

3.5 Polychlorinated Biphenyl (PCB) and Polychlorinated Terphenyls (PCT) Restrictions

Polychlorinated biphenyls (PCB) and polychlorinated terphenyls (PCT) must not be present in parts, components, materials, or products.

4. BATTERY CONTENT RESTRICTIONS

The content restrictions specified in this Section apply to all batteries purchased by HP, and to all batteries contained in any parts, components or products purchased by Hewlett-Packard.

4.1 Mercury Restrictions

4.1.1 Batteries must not contain mercury exceeding 5 part per million (5 PPM) by weight (5 mg/kg).

4.1.2 Products, parts and components must not contain mercuric oxide batteries.

4.2 Cadmium Restrictions

The total cadmium content of alkaline-manganese batteries must not exceed 10 parts per million (10 PPM) by weight (10 mg/kg).

5. PACKAGING MATERIALS CONTENT RESTRICTIONS

The content restrictions specified in this section apply to all packaging materials purchased by HP and used to package HP products that are incorporated in the products HP sells.

5.1 ODS Restrictions in Packaging Materials

CFCs and HCFCs listed in Tables 8.1 and 3.2 must not be used in plastic foam packaging materials, for example, as foaming agents.

5.2 Heavy Metals Restrictions in Packaging Materials.

Packaging materials must not contain any amount of lead, mercury, cadmium, or hexavalent chromium as an intentionally added element. The sum concentration of incidental lead, mercury, cadmium, and hexavalent chromium must not exceed 100 parts per million, 100 PPM, by weight (100 mg/kg).

Date: 09/29/99
Changes since previous issue noted
by approval: [*]

GENERAL
SPECIFICATION FOR
ENVIRONMENT

Page 3 of 8
[*]
Rev. D

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

SPECIFICATION CONTROL DRAWING

Table 8.2 - Ozone Depleting Substances Prohibited From Products

Group I Chlorofluorocarbons, CFCs (includes isomers of listed substances)

[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]

Group II Other Fully Halogenated CFCs (includes isomers of listed substances)

[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]

Group III Halons (includes isomers of listed substances)

[*]	[*]	[*]	[*]
[*]	[*]		

Group IV

[*]

Group V

[*]

Group VI

[*]

Date: 09/29/99
Changes since previous issue noted
by approval: [*]

GENERAL
SPECIFICATION FOR
ENVIRONMENT

Page 5 of 8
[*]
Rev. D

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

SPECIFICATION CONTROL DRAWING

Table 8.4 - Labeling Requirements for Batteries, Consumer Products Containing Batteries, and their Packaging

PRODUCT TYPE -----	SYMBOL -----	WORDING ON LABEL -----
Alkaline batteries	See Note 1 below	- Manufacturer's name and address
lead-acid (sealed) batteries and their packaging	[GRAPHIC IMAGE APPEARS HERE]	- Manufacturer's name and address - Pb - "BATTERY MUST BE RECYCLED."
Lithium and Lithium ion batteries	See Note 1 below	- Manufacturer's name and address - lithium or lithium ion
Nickel-Cadmium batteries and their packaging	[GRAPHIC IMAGE APPEARS HERE]	- Manufacturer's name and address - Ni-Cd - "BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY."
Nickel metal hydride batteries	See Note 1 below	- Manufacturer's name and address - "CONTAINS NICKEL METAL HYDRIDE (NIMH) BATTERY."
Rechargeable consumer products containing not easily removable sealed lead acid batteries	[GRAPHIC IMAGE APPEARS HERE]	- Manufacturer's name and address - "CONTAINS SEALED LEAD BATTERY. BATTERY MUST BE RECYCLED."
Rechargeable consumer products containing not easily removable Nickel-Cadmium batteries	[GRAPHIC IMAGE APPEARS HERE]	- Manufacturer's name and address - "CONTAINS NICKEL-CADMIUM BATTERY. BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY."
Packaging of rechargeable consumer product containing sealed lead battery	[GRAPHIC IMAGE APPEARS HERE]	- Manufacturer's name and address - "CONTAINS SEALED LEAD BATTERY. BATTERY MUST BE RECYCLED."
Packaging of rechargeable consumer product containing nickel-cadmium battery	[GRAPHIC IMAGE APPEARS HERE]	- Manufacturer's name and address - "CONTAINS NICKEL-CADMIUM BATTERY. BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY."

NOTE 1: LABELING REQUIREMENT FOR THE NETHERLANDS

This label must be on the packaging of the battery (if sold separate from the product) or in the manual of the product containing the battery with statements about removal of the battery.

Date: 09/29/99
Changes since previous issue noted by approval: [*]

GENERAL
SPECIFICATION FOR
ENVIRONMENT

Page 8 of 8
[*]
Rev. D

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE FABRIC SOFTWARE OEM PRODUCT PER-COPY FEES.
HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO. / DESCRIPTION: [*]

HP per-license fee: [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE / HP CONFIDENTIAL

AMENDMENT NO. 3 TO

OEM PURCHASE AGREEMENT

This Amendment No. 3 (the "Amendment") to the OEM Purchase Agreement (the "Agreement") dated April 20, 2001 by and between HEWLETT-PACKARD COMPANY, a Delaware corporation having its principal place of business at 3000 Hanover Street, Palo Alto, California 94304 ("HP") and BROCADE COMMUNICATIONS SYSTEMS, INC., a Delaware corporation, having its principal place of business at 1745 Technology Drive, San Jose, California 95110, and Brocade Communications Systems Switzerland SarL, a corporation organized under the laws of Geneva, and having its principal place of business at 29-31 Route de l'Aéroport, CH-1205 Geneva, Switzerland (collectively "Supplier") is entered into by HP and Supplier effective as of February 1, 2002 (the "Effective Date"). This Amendment is a Product Addendum as described in Section 2.18 of the Agreement. The parties hereby agree as follows.

Except as expressly amended herein all unmodified and remaining terms and conditions of the Agreement shall remain in full force and effect. All capitalized terms not defined in this Amendment shall have the meaning set forth in the Agreement. In the event a conflict between the Agreement and this Amendment, the terms of this Amendment shall govern.

WHEREAS, HP and Supplier wish to add additional OEM Products, and terms specific to those additional products.

NOW THEREFORE, the parties hereto agree as follows:

1. TRAINING

- 1.1 Technical & Presales Training. Supplier shall provide to HP, [*] in Supplier's technical training course on installation and configuration of the SilkWorm 3200 (which is the same course as that for the SilkWorm 3800). Such training shall take place at Supplier's San Jose location and within [*] prior to, and [*] after HP's product launch. In addition, Supplier shall provide to HP, at [*] per HP's [*] for the term of this Agreement, in Supplier's technical training course on installation and configuration of the SilkWorm 3200.

All such training provided by Supplier will be [*] by Supplier to HP. Supplier will maintain a designated training contact for HP University personnel, and will provide technical support for, and a qualified Supplier training resource to participate in, the first [*] taught by HP utilizing the training provided hereunder by Supplier. Such classes will be up to [*] in length. HP will be responsible for reasonable travel and expenses incurred by the Supplier training resource. Other training (including without limitation [*] technical training) will be provided upon mutually agreed terms and conditions.

- 1.2 HP Training Requirement. HP shall use its reasonable best efforts to conduct, no later than May 30, 2002, internal training courses on the SilkWorm 3200 sufficient to cover no less than [*] HP personnel in order to allow HP to become fully familiar with the SilkWorm 3200 and its market. The HP resources may include but will not be

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

limited to field and inside sales personnel, customer engineers, technical consultants, and HP University Trainers.

- 1.3 HP Training Demonstration Hardware. HP's Scalable Network Solutions division ("SNS") will make its reasonable best efforts to provide Supplier with [*] of HP Demonstration Equipment to be hosted in Supplier's training facilities. For the purpose of this Agreement. HP Demonstration Equipment shall refer to HP [*] Hardware, of the current or recent generation of the applicable HP product. Each piece of HP Demonstration equipment will be provided under the terms of a separately executed HP Equipment Loan Agreement, the term of which shall be no less than [*]

2. DOCUMENTATION

- 2.1 Preparation of Documentation. Supplier shall [*] of Supplier's standard documentation for the SilkWorm 3200 ("Documentation") [*] and in accordance with the provisions of Exhibit (A-5). Such Documentation will include [*], as enumerated in Exhibit (A-5). Supplier shall retain ownership of such Documentation.
- 2.2 License to Documentation. Supplier shall provide HP with [*] in [*] form. Except as otherwise provided and subject to the retention of all copyright notices and/or confidentiality legends, HP shall have the right to [*] for [*]. HP shall have the right to [*] from the [*] to it by Supplier for [*] to purchasers of the HP version of the SilkWorm 3200. HP shall not have the right to [*] except to [*]. HP shall provide Supplier with a copy of such [*] Product documentation for verification, and Supplier agrees to perform [*] on the [*] of any release within [*] of receipt of such [*] Supplier's [*] of the [*] is for Supplier's internal purposes only, and HP will not rely on [*] for any purposes. Further, HP shall have the right to [*] its Resellers and End User Customers. The Licenses granted in this Article 2.2 shall continue during the Term of this Agreement and for [*] after the date of last shipment by HP of the Products purchased under this Amendment.

3. ENVIRONMENTAL

Notwithstanding the provisions of Article 16 of the Agreement Supplier shall use its reasonable best efforts to ensure that the SilkWorm 3200 and its packaging will comply with HP's General Specifications for Environment, [*] attached hereto as Exhibit (B) and incorporated herein by reference, provided however that those provision(s) of HP's General Specifications for Environment relating to batteries shall not apply.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

4. PRICING

4.1 [*]. If HP meets all the following conditions by the specified due dates, then the [*] in this Section 4 shall apply:

4.1.1 Launch. HP must formally launch and make generally available for sale [*].

4.1.2 Certification. HP must provide to Brocade by April 1, 2002, subject to the provisions of Article (19) of the Agreement, a copy of the [*]. For [*] and high availability [*] must generate a [*] including the [*] configuration of the SilkWorm 3200.

Sections 4.2 and 4.3 shall not apply if HP does not meet all of the conditions in this Section 4.1 by the specified due dates.

4.2 [*] The unit prices listed in Exhibit C for the Base configuration of the SilkWorm 3200 (not the Entry configuration) shall be [*].

4.3 [*] HP will [*] for the completed purchase of [*] of the [*] configuration of the SilkWorm 3200 (not the [*] configuration), up to [*] in each Supplier [*] for use in promoting [*] products as more specifically described in the Supplier [*] the current revision of which is attached hereto as Exhibit D-1, and subject to the terms and conditions of the [*] as they may be provided and amended [*] from time to time. HP and Supplier agree that the [*] shall be [*] to allow for a [*] of [*] as described in Exhibit D-2.

5. TERMINATION

In addition to the provisions in Article 22 of the Agreement, HP agrees that if this Amendment or the Agreement is terminated due to HP's breach, then HP will reimburse Supplier for its [*] to rework HP-customized SilkWorm 3200 units back to Supplier's standard product, as described in exhibit (A-2) hereto. HP's duty to reimburse shall extend only to units within the [*] and to units for which HP-requested customization has begun or is completed, up to the number of units in the HP Forecasts as of the termination date.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

6. HP MARKETING [*]

In [*] of Supplier's marketing activities related to Supplier's 2Gb fibre channel switching technology, HP shall provide [*] in the form of (1) an HP [*] in [*] of Supplier's 2Gb technology specifically as it relates to the 2 SilkWorm 3200 models HP is [*], which [*] shall be delivered in accordance with HP's standard [*] policy and no later than 3/1/02 and (2) an HP [*], delivered to Supplier no later than 3/1/02 in support of Supplier's SilkWorm 3200 2Gb technology, which [*] may be referenced by Supplier in Supplier's [*]

7. [*] DATA

As a clarification, Section 6 of Amendment No. 2 to the Agreement ("HP [*] DATA") shall apply to all OEM Products, including the SilkWorm 3200.

8. EXHIBITS

Each of the following Exhibits referred to in this Amendment is incorporated in full in this Amendment wherever reference to it is made:

AMENDMENT 3 - EXHIBIT (A) - OEM PRODUCTS AND SPECIFICATIONS
(A-1) Supplier Product Specifications
(A-2) HP Configuration Specification Documents
(A-3) HP Supplier Quality System Requirements
(A-4) Packaging
(A-5) Documentation

AMENDMENT 3 - EXHIBIT (B) HP's General Specifications for Environment, [*]

AMENDMENT 3 - EXHIBIT (C) - PRICING AND FEES

AMENDMENT 3 - EXHIBIT (D) - [*]
(D-1) Brocade [*] - January 2002
(D-2) Changes to [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

This Amendment may be executed in counterparts each of which will be deemed an original, but both of which together will constitute one and the same instrument. The parties agree that facsimile signatures of the parties will be binding.

AGREED:

BROCADE COMMUNICATIONS
SYSTEMS, INC.

HEWLETT-PACKARD COMPANY

By: /s/ Mark E. Favreau

By: _____

Name: Mark E. Favreau

Name: _____

Title: V.P. Global OEM Sales

Title: _____

BROCADE COMMUNICATIONS
SWITZERLAND, SARL.

By: _____

Name: _____

Title: _____

BROCADE/HP CONFIDENTIAL

EXHIBIT (A-1)
Supplier Product Specifications

AMENDMENT NO. 3
Page 6 of 15

EXHIBIT (A-2)
HP Configuration Specification Documents

AMENDMENT NO. 3
Page 7 of 15

BROCADE / HP CONFIDENTIAL

EXHIBIT (A-3)
HP Supplier Quality System Requirements

TO BE ADDED SUBJECT TO BROCADE / HP REVIEW AND APPROVAL

AMENDMENT NO. 3
Page 8 of 15

EXHIBIT (A-4)
Packaging

AMENDMENT NO. 3
Page 9 of 15

EXHIBIT (A-5)
DOCUMENTATION

[*]
October 8, 2001

CONTENT CHANGES

- 1. [*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]
[*]

STYLE AND FORMAT

- 1. [*]
[*]
[*]
[*]
[*]

PROCESS

- 1. [*]
[*]
[*]
[*]

DELIVERY

- 1. [*]
[*]
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (B)
HP's General Specifications for Environment, [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (C)
PRICING

ENTERPRISE - SILKWORM 3200 SWITCH OEM PRODUCT PRICING.
HP PART DESCRIPTION: [HP private-label name pending] (8-Port Fibre Channel Fabric Switch)

SUPPLIER MODEL NO./DESCRIPTION: [*]

[*]	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

ENTRY SILKWORM 3200 SWITCH OEM PRODUCT PRICING.
HP PART DESCRIPTION: [HP private-label name pending] (8-Port Fibre Channel Fabric Switch)

SUPPLIER MODEL NO./DESCRIPTION: [*]

[*]	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

BROCADE SILKWORM SWITCH UPGRADE
HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO./DESCRIPTION: [*]

HP Upgrade Purchase Price	[*]
---------------------------	-------

BROCADE FABRIC SOFTWARE OEM PRODUCT PER-COPY FEES.
HP PART DESCRIPTION: [HP private-label name pending]

SUPPLIER MODEL NO./DESCRIPTION:
[*]

HP per-license fee:	[*]
---------------------	-------

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

BROCADE/HP CONFIDENTIAL

EXHIBIT (D-1)
BROCADE [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 3
Page 13 of 15

EXHIBIT (D-2)
CHANGES TO [*]

BACKGROUND: HP and Supplier would like to amend the [*] to allow HP to use its [*] for a [*] until Brocade issues the end of life notice for the SilkWorm 3200 ("3200 EOL"). Thereafter, HP and Brocade intend for HP to use its [*] only as described in the unmodified [*]. Except as modified by the Amended Terms below, the [*] remain unchanged.

AMENDED TERMS:
- - - - -

The provisions of this Amendment governing [*] DATA shall supercede the section of the Guideline titled [*] Reports.

During the pre-approval process for each [*] Activity, HP and Brocade will mutually agree upon whether a [*] or [*] will be used to [*] the initiative.

From the Effective Date of this Amendment until 3200 EOL, the section of the [*] entitled [*] is replaced with the following. After 3200 EOL the original, unmodified section shall apply:

[*]

To qualify for Brocade [*] the marketing activity must be directed at promoting and supporting Brocade products. To the extent that an activity promotes a SAN solution and involves other vendor offerings, Brocade must be shown as the [*].

Brocade [*] is available to [*] general types of marketing activities with HP worldwide. These are [*] known as [*] marketing and [*] known as [*] marketing. Up to [*] of the prior [*] with a maximum of [*] per [*] can be used for pre-approved [*] marketing activities.

All activities must be mutually agreed upon in writing by Brocade and the OEM prior to moving forward on them in order for Brocade [*] to be used for [*]. The following [*] activities qualify under the Brocade [*] when pre-approved in writing by Brocade:

[*] qualifying marketing activities:

- [*]
- [*]
- [*]
- [*]
- [*]
- [*]
- [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

- [*]

[*] qualifying marketing activities:

- [*]
[*]
[*]

Any activity that does not fall within these [*], yet which the OEM views as [*] Brocade solutions, should be discussed with the Brocade OEM account team to determine if that activity could be designated as a qualifying activity. Brocade may determine if such proposed activities are qualifying activities at its sole discretion on a case-by-case basis.

Detailed information regarding eligible reimbursable activities can be found on PAGES 4-9 of the [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 4
TO
OEM PURCHASE AGREEMENT

This Amendment No. 4 (the "Amendment") to the OEM Purchase Agreement (the "Agreement") dated April 20, 2001, by and between HEWLETT-PACKARD COMPANY, a Delaware corporation having its principal place of business at 3000 Hanover Street, Palo Alto, California 94304 ("HP") and BROCADE COMMUNICATIONS SYSTEMS, INC., a Delaware corporation, having its principal place of business at 1745 Technology Drive, San Jose, California 95110, and Brocade Communications Systems Switzerland SarL, a corporation organized under the laws of Geneva, and having its principal place of business at 29-31 Route de l'Aeroport, CH-1205 Geneva, Switzerland (collectively "Supplier") is entered into by HP and Supplier effective as of June 5, 2002 (the "Effective Date"). This Amendment is a Product Addendum as described in Section 2.18 of the Agreement. The parties hereby agree as follows:

Except as expressly amended herein all unmodified and remaining terms and conditions of the Agreement shall remain in full force and effect. All capitalized terms not defined in this Amendment shall have the meaning set forth in the Agreement. In the event a conflict between the Agreement and this Amendment, the terms of this Amendment shall govern.

WHEREAS, HP and Supplier wish to include the SilkWorm 12000 and related products as additional OEM Products, and terms specific to those additional products;

NOW THEREFORE, the parties hereto agree as follows:

1. TRAINING

- 1.1 Technical & Presales Training. Supplier shall provide to HP, [*] in Supplier's technical training course, AFS 212, on installation and configuration of the SilkWorm 12000 during the Term of this Agreement. Such training shall take place at Supplier's San Jose location and in accordance with the published schedule for the AFS 212 training class on the Supplier web site at Brocade.com. In addition, Supplier shall provide [*] licenses for the AFS 212 class course material in exchange for the equipment as described below in Section 1.4. Supplier shall also make available to HP the FRP 212 course for break/fix training for [*].

Supplier will maintain a designated training contact for HP SAN University personnel, and will provide technical support for, and a qualified Supplier training resource (including but not limited to a system engineer) to participate in, the [*] taught by HP utilizing the training provided hereunder by

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Supplier. Such classes will be up to [*] days in length. HP will be responsible for reasonable travel and expenses incurred by Supplier's training resource. Other training (including without limitation Supplier's Educational Services technical training) may be provided upon mutually agreed terms and conditions.

- 1.2 HP Training Requirement. HP shall use its commercially reasonable efforts to conduct, no later than [*] after the Effective Date of this Amendment, internal training courses on the SilkWorm 12000 sufficient to cover no less than [*] HP personnel in order to allow HP to become fully familiar with the SilkWorm 12000 and its market.
- 1.3 It is understood between HP and Supplier that the following equipment has been provided to Supplier by HP as consideration for the AFS 212 course training materials provided by Supplier to HP as identified in Section 1.1 above: [*].

2. DOCUMENTATION

- 2.1 Preparation of Documentation. Supplier shall provide HP Supplier's standard documentation for the SilkWorm 12000 ("Documentation") [*]. Such Documentation will include planning, installation and operation, and service and user guides. Supplier shall retain ownership of such Documentation.
- 2.2 License to Documentation. Supplier shall provide HP with master copies of the Documentation in both hard copy and electronic form. Except as otherwise provided and subject to the retention of all copyright notices and/or confidentiality legends, HP shall have the right to [*] for use internally by its employees, contract employees, and resellers. HP shall also have the right to [*] from the masters supplied to it by Supplier for distribution to purchasers of the HP version of the SilkWorm 12000. HP shall not have the right to [*] except to [*] HP part numbers and/or product names. HP shall provide Supplier with a copy of such [*] Product documentation for [*], and Supplier agrees to perform such [*] on the [*] of any release within [*] of receipt of such [*] If verification is not received by HP within [*] of Supplier's receipt of such [*] Product documentation, said [*] Product documentation will be deemed to have been verified and consented to by Supplier. Supplier's verification of the [*] Documentation is for Supplier's internal purposes only, and HP will not rely on such verification for any purposes. Further, HP shall have the right to distribute such Product documentation and software media to its resellers and end user customers. The Licenses granted in this Article 2.2 shall continue during the term of this Amendment and for [*] after the date of last shipment by HP of the Products purchased under this Amendment.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

3. [*] DATA

As a clarification, Section 6 of Amendment 2 to the Agreement ("HP [*] DATA") shall apply to all OEM Products, including the SilkWorm 12000.

4. ENVIRONMENTAL

Notwithstanding the provisions of Article 16 of the Agreement, Supplier shall use its commercially reasonable efforts to ensure that the SilkWorm 12000 and its packaging will comply with HP's General Specifications for Environment, [*], attached hereto as Exhibit (B) and incorporated herein by reference, provided however that those provision(s) of HP's General Specifications for Environment relating to batteries shall not apply.

5 [*] INVENTORY

[*] inventory and supply model) shall not apply to any Orders for the SilkWorm 12000 Product pursuant to this Amendment 4 to the Agreement.

6 EXHIBITS

Each of the following Exhibits referred to in this Amendment is incorporated in full in this Amendment wherever reference to it is made:

AMENDMENT 4 - EXHIBIT (A) - OEM PRODUCTS AND SPECIFICATIONS
(A-1) Supplier Product Specifications
(A-2) HP Configuration Specification Documents
(A-3) HP Supplier Quality System Requirements

AMENDMENT 4 - EXHIBIT (B) HP's General Specifications for Environment, [*]

AMENDMENT 4 - EXHIBIT (C) - PRICING AND FEES

[SIGNATURE PAGE FOLLOWS]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

This Amendment may be executed in counterparts, each of which will be deemed an original, but both of which together will constitute one and the same instrument. The parties agree that facsimile signatures of the parties will be binding.

AGREED:

BROCADE COMMUNICATIONS
SYSTEMS, INC.

HEWLETT-PACKARD COMPANY

BY: _____

BY: _____

NAME: _____

NAME: _____

TITLE: _____

TITLE: _____

BROCADE COMMUNICATIONS
SWITZERLAND, SARL.

BY: _____

NAME: _____

TITLE: _____

[GRAPHIC IMAGE APPEARS HERE]

The Brocade SilkWorm 12000 Core Fabric Switch provides a highly reliable solution for deploying enterprise-class Storage Area Networks (SANs).

SILKWORM SWITCH FAMILY

SILKWORM 12000

Highlights

- Simplifies enterprise SAN deployment by combining high port density with exceptional scalability, performance, reliability, and availability
- Delivers industry-leading port density with up to 128 ports in a single 14U enclosure and up to 384 ports in a single rack, facilitating manageable SAN fabrics composed of thousands of ports
- Meets enterprise-level availability requirements with redundant, hot-pluggable components, no single points of failure within the switch, and non-disruptive software upgrades
- Supports emerging storage networking technologies with a unique multiprotocol architecture
- Provides 1 Gbit/sec and 2 Gbit/sec operation today with seamless extension to 10 Gbit/sec in the future
- Employs Brocade Inter-Switch Link (ISL) Trunking to provide a high-speed data path between switches
- Leverages Brocade Secure Fabric OS to help ensure a comprehensive security platform for the entire SAN fabric

HIGH-PORT-DENSITY, MULTIPROTOCOL CORE FABRIC SWITCH

As the industry's first 2 Gbit/sec enterprise-level switch, the Brocade(R) SilkWorm(R) 12000 Core Fabric Switch provides unprecedented levels of availability, scalability, manageability, and security for open enterprise storage applications. Possible configurations range from a 32-port switch to a dual 64-port switch in a single enclosure that provides "pay-as-you-grow" scalability.

Based on the Brocade Intelligent Fabric Services Architecture, the SilkWorm 12000 provides a reliable foundation for high-performance core-to-edge SANs that leverage proven core backbone networking methodology. In addition, multiple SilkWorm 12000 switches can be interconnected at the core to form enterprise SAN fabrics capable of supporting thousands of hosts and storage devices (see Figure 1).

The SilkWorm 12000 provides higher levels of performance and availability than director-class switches while supporting a more intelligent and scalable networked storage model. Moreover, the SilkWorm 12000 is designed to integrate with heterogeneous environments that include multiple operating systems such as Windows NT, UNIX, Linux, Solaris, AIX, and others. As a result, organizations have the flexibility to build cost-effective and easy-to-manage enterprise SAN fabrics. These capabilities make the SilkWorm 12000 ideal for mission-critical business continuance applications such as LAN-free backup, remote mirroring, data replication, and high-availability clustering.

[GRAPHIC IMAGE APPEARS HERE]

SILKWORM 12000

FIGURE 1. A SilkWorm 12000 core fabric surrounded by SilkWorm edge switches enables cost-effective, highly scalable enterprise SANs.

[GRAPHIC IMAGE APPEARS HERE]

HIGH AVAILABILITY THROUGHOUT THE FABRIC

The core-to-edge SAN model features redundancy within the core fabric switch as well as a high-availability network approach for the entire fabric. Combining the proven reliability of the SilkWorm family with enterprise-level availability features, the SilkWorm 12000 provides a SAN fabric with built-in redundancy and no single point of failure. This infrastructure is capable of delivering overall system availability greater than 99.999 percent--the "five nines" of availability. Other key availability features include:

- - Fabric Shortest Path First (FSPF) traffic rerouting
- - Dual-redundant control processors
- - Redundant, hot-swappable components
- - Redundant power and cooling subsystems
- - Non-disruptive software upgrades

INDUSTRY-LEADING PERFORMANCE

The SilkWorm 12000 is designed to provide high-performance switching at the core of large SANs. All external Fibre Channel ports can operate at 1 and 2 Gbit/sec per port (inbound and outbound) at distances up to 10 km. In addition, auto-sensing and speed matching of data traffic ensures interoperability between 1 and 2 Gbit/sec devices. With Brocade Extended Fabrics software and Dense Wave Division Multiplexing (DWDM) technology, ISLs can span up to 100 km over Metropolitan Area Networks (MANs)--extending SAN connectivity without significantly inhibiting performance.

To provide even higher performance in the core, Brocade ISL Trunking technology combines up to four ISLs between a pair of switches into a single, logical high-speed trunk running at up to 8 Gbit/sec (see Figure 2).

INTELLIGENCE WITHIN THE SWITCH

To improve security and manageability, Brocade Frame Filtering intelligence is built directly into the SilkWorm 12000 ASIC technology. This design will enable new capabilities such as hardware-enforced zoning based on World Wide Name (WWN), Logical Unit Number (LUN), or protocol. Organizations can also use Brocade Advanced Performance Monitoring to improve end-to-end performance analysis on a fabric-wide basis. This optional feature helps reduce storage costs by enabling improved SAN performance tuning, resource optimization, and administrator productivity.

OPEN SAN MANAGEMENT

The SilkWorm 12000 simplifies management by networking both core and edge switches under Brocade Fabric OS, the embedded real-time operating system. In addition to centralizing management, this design enables heterogeneous device connectivity, automatic data routing and rerouting, self-healing capabilities, and scalable connectivity. Moreover, the Brocade Fabric Access API enables software vendors to develop feature-rich management applications that leverage the distributed intelligence of Brocade SANs.

SEAMLESS UPGRADES, COST-EFFECTIVE MIGRATION, AND INVESTMENT PROTECTION

To help protect existing technology investments, the SilkWorm 12000 provides a seamless upgrade path and backward and forward compatibility with SilkWorm entry, midrange, and port aggregation offerings. As SAN technologies evolve, the SilkWorm 12000 architecture is designed to integrate with emerging storage networking protocols such as FICON, iSCSI, FC-IP, and InfiniBand. The current design is extendable to future 10 Gbit/sec technologies with a switch module upgrade rather than a forklift upgrade of the chassis.

A NEW LEVEL OF SAN SECURITY

The SilkWorm 12000 supports Brocade Secure Fabric OS, the most comprehensive SAN security architecture available. Based on state-of-the-art networking security technology, this architecture addresses a wide variety of vulnerabilities within the SAN fabric. Advanced security features provide powerful tools for securing SAN access and supporting mission-critical applications. In addition, software- and hardware-enforced Brocade Zoning helps secure data by preventing unauthorized access.

SUPERIOR RELIABILITY, AVAILABILITY, AND SERVICEABILITY

Enterprise-level SilkWorm 12000 reliability features include the following:

- Redundant control processors provide continuous performance during failovers and enable non-disruptive firmware upgrades.
- Continuous monitoring of environmental components helps reduce service costs.
- Power-On Self-Test (POST), online/offline diagnostics, and per-port statistics enable administrators to monitor ports and diagnose problems without disrupting switch operations.
- Error detection and fault isolation facilities automatically disable failing ports and restart them when the problem has been resolved.

INTELLIGENT SAN MONITORING

To simplify SAN monitoring and maintenance, the SilkWorm 12000 provides the following functions:

- Fabric OS enables value-added Brocade SAN fabric monitoring and management applications.
- Industry-standard Management Information Base (MIB) support enables SNMP-based interfaces to access switch information.
- Network administrators can manage switch configurations through a command line interface or Brocade WEB TOOLS.

MAXIMIZING SAN INVESTMENTS

Brocade and its partners offer complete SAN solutions to meet a wide range of technology and business requirements. These solutions include education and training, support, service, and professional services to help optimize SAN investments. For more information, contact an authorized Brocade sales partner or visit WWW.BROCADE.COM.

FIGURE 2. Trunking groups multiple ISLs to enable high-speed data traffic.

[GRAPHIC IMAGE APPEARS HERE]

SILKWORM 12000 CORE FABRIC SWITCH SPECIFICATIONS

SYSTEMS ARCHITECTURE

FIBRE CHANNEL PORTS	128 ports, universal (E, F, and FL); up to eight 16-port Fibre Channel modules
CONTROL PROCESSOR	Redundant (active/standby) control processor modules
SCALABILITY	Full fabric architecture: 239 switches maximum
PERFORMANCE	1.063 Gbit/sec line speed, full duplex; 2.125 Gbit/sec line speed, full duplex; auto-sensing of 1 Gbit/sec and 2 Gbit/sec port speeds; optionally programmable to fixed port speed; speed matching between 1 Gbit/sec and 2 Gbit/sec ports
ISL TRUNKING	Up to four 2.125 Gbit/sec ports per ISL trunk; up to 8.5 Gbit/sec per ISL trunk
AGGREGATE BANDWIDTH	512 Gbit/sec end-to-end
SWITCH LATENCY	<2.1 (μ)sec any port to any port at 2 Gbit/sec, cut-through routing
MAXIMUM FRAME SIZE	2112-byte payload
FRAME BUFFERS	108 per 4-port group, dynamically allocated
CLASSES OF SERVICE	Class 2, Class 3, Class F (inter-switch frames)
PORT TYPES	FL_Port, F_Port, and E_Port; self-discovery based on switch type (U_Port); optional port type control
DATA TRAFFIC TYPES	Fabric switches supporting unicast, multicast

(255 groups), and broadcast

MEDIA TYPES

Hot-pluggable, industry-standard Small Form-Factor Pluggable (SFP), LC connector; Short-Wavelength Laser (SWL), up to 500 m (1,640 ft); Long-Wavelength Laser (LWL), up to 10 km (6.2 mi); distance depends on fiber optic cable and port speed

FABRIC SERVICES

Simple Name Server; Registered State Change Notification (RSCN); Alias Server (multicast); Brocade Advanced Zoning; WEB TOOLS; Fabric Watch; Extended Fabrics; Remote Switch; ISL Trunking; Advanced Performance Monitoring

SILKWORM 12000

HIGH AVAILABILITY

CONTROL PROCESSOR Redundant (active/standby) control processor modules; automatic failover; non-disruptive software upgrades; dual-flash memory on each control processor to store two software images

MODULES Hot-swappable

BACKPLANE Fully passive

INPUT POWER Dual AC inputs

CHASSIS POWER Four AC-DC power supply modules, 2N redundant

COOLING Three blower assembly modules (two operational required)

MANAGEMENT

MANAGEMENT Telnet; SNMP (FE MIB, FC Management MIB); WEB TOOLS; Fabric Watch; Fabric Access layer

MANAGEMENT ACCESS 10/100 Ethernet (RJ-45), in-band over Fibre Channel (requires fabric); two serial ports (DB-9) per control processor module

DIAGNOSTICS POST and embedded online/offline diagnostics

MECHANICAL SPECIFICATIONS

MOUNTING Rack mountable in a standard 19 in. EIA rack; Telco-style mid-mounting available

PORTS PER RACK Up to 384 ports per 42U rack

ENCLOSURE Rear panel-to-door airflow

SIZE 43.74 cm (17.22 in.) width
61.24 cm (24.11 in., 14U) height
70.90 cm (27.90 in.) depth without door
74.20 cm (29.20 in.) depth with door

WEIGHT 98 to 113 kg (215 to 250 lb)

ENVIRONMENT

TEMPERATURE Operating: 0(degree)C to 40(degree)C

HUMIDITY Operating: 20% to 85% non-condensing at 40(degree)C

ALTITUDE 0 to 3 km

SHOCK 20 g, 6 ms, half sine

VIBRATION Operating: 0.5 g p-p, 5 to 500 Hz;
Non-operating: 2.0 g, 5 to 500 Hz

HEAT DISSIPATION 1960 Watts (6700 BTU/hour) fully loaded

POWER

SUPPORTED POWER RANGE Nominal: 200 to 240 VAC, single phase
Operational: 180 to 264 VAC auto-sensing
Maximum 2300 Volt-Amps
Maximum 12 Amps

IN-RUSH CURRENT 40A maximum, < 1/4 AC cycle, per AC input

FREQUENCY 47 to 63 Hz

FIBRE CHANNEL STANDARDS

STANDARD	REVISION
FC-AL	ANSI X3.272: 1996
FC-AL-2	NCITS 332: 1999
FC-FLA	NCITS TR-20: 1998
FC-GS-3	NCITS 348: 2000
FC-FG	ANSI X3.289: 1996
FC-PH	ANSI X3.230: 1994
FC-PH-2	ANSI X3.297: 1997
FC-PH-3	ANSI X3.303: 1998
FC-PLDA	NCITS TR-19: 1998
FC-SW-2	Rev 5.3
FC-VI	Rev 1.61

IPFC	RFC 2625
FCP	ANSI X3.269: 1996
FCP-2	Rev 7
SCSI Enclosure Services	Rev 8b
FC-SB-2	Rev 2.1
FC-BB	Rev 4.7
FC-FS	Rev 1.7

REGULATORY COMPLIANCE

	SAFETY	EMC
Canada	CSA 60950	ICES-003 Class A
United States	UL 60950	FCC Part 15 Class A
Japan	IEC60950	VCCI Class A
European Community	EN60950	EN55022 Level A
	TUV, NEMKO	EN55024
Australia/New Zealand		AS/NZS 3548
International	IEC 60950	CISPR 22

[GRAPHIC IMAGE APPEARS HERE]

CORPORATE HEADQUARTERS

1745 Technology Drive
San Jose, CA 95110
T:(408) 487-8000
F:(408) 487-8101
info@brocade.com

EUROPEAN HEADQUARTERS

29, route de l'Aeroport
Case Postale 105
Geneva 15, Switzerland 1215
T:+41 22 799 56 40
F:+41 22 799 56 41
europe-info@brocade.com

ASIA PACIFIC HEADQUARTERS

Brocade Communications Systems, Inc.
The Imperial Tower 15th Fl.
1-1-1 Uchisaiwaicho
Chiyoda-ku, Tokyo 100-0011, Japan
T:+81 33507 5802
F:+81 33507 5900
apac-info@brocade.com

(C)2002 Brocade Communications Systems, Inc. All Rights Reserved.03/02
GA-DS-103-03

Brocade, the Brocade B weave logo, and SilkWorm are registered trademarks of Brocade Communications Systems, Inc., in the United States and/or in other countries. All other brands, products, or service names are or may be trademarks or service marks of, and are used to identify, products or services of their respective owners.

Notice: This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered or to be offered by Brocade. Brocade reserves the right to make changes to this document at any time, without notice, and assumes no responsibility for its use. This informational document describes features that may not be currently available. Contact a Brocade sales office for information on feature and product availability. Export of technical data contained in this document may require an export license from the United States government.

[GRAPHIC IMAGE APPEARS HERE]

CONFIGURATION SPECIFICATION

HP STORAGEWORKS CORE SWITCH
2/64

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 1 of 1
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

BROCADE 12000 INFORMATION

PRODUCT : hp StorageWorks Core Switch 2/64

MODEL NUMBERS:

[*] hp StorageWorks Core Switch 2/64
[*] Blade

[*] hp StorageWorks Core Switch 2/64 (w/ 32
ports)

[*]
[*] hp StorageWorks Core Switch Blade (16
port)

[*]

SUPPLIER: Brocade

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 2 of 2
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY
WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT
TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

DOCUMENT REVISION HISTORY

REVISION #	DATE	DESCRIPTION
00	1/24/02	Preliminary
01	2/26/02	Added p/n's, agency label and button drawings
02	2/28/2002	Changed bar coding of FRU spec. Page 8
03	3/14/2002	product name change, brocade badges
04	3/19/02	Added FRU information & license information
05	3/20/02	Dropped AZ. Removed reference to quickloop Added 5.X Port card requirements
06	3/25/02	Corrected rail kit pn in 4.0 to -87903 not -87902
E7	3/29/02	Added contents of rack mount hw kit (BOB)
E8	4/9/02	CD-Rom artwork
E9	4/23/02	Corrected formatting issues, added pn to assy & rail kit subcomponents.
E10	4/23/02	Add route.delayReroute:1 All material to be included from Brocade (Polish Doc, Power Cord, Getting Started Guide, BOB)
E11	5/24/02	Included changes to make similar to pre merger Compaq model.
E12	5/29/02	Pre Merger Compaq team added their content
E13	5/30/02	Added shipping labels, Compaq part # labels, and locations
E14	6/6/2002	Samples only added on page 11 and 15

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 3 of 3
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

TABLE OF CONTENTS

DOCUMENT REVISION HISTORY	3
1. SCOPE OF DOCUMENT	5
2. HP'S GENERAL REQUIREMENTS	5
2.1 Bar Code Requirements	5
2.2 Power Cords	5
3.0 PURCHASED PARTS	6
4.0 SWITCH	7
4.1 Switch Configuration	7
4.2 Switch: Configuration Parameters	7
4.3 Switch: Licenses	8
4.4 Switch: Accessory Kit	8
4.5 Switch: Rack Mount Kit [*]	10
4.6 Switch: Labels	11
4.7 Label Locations	13
4.8 Label: Accessory Kit	13
4.9 Label: Rack Mount Kit	13
4.10 Label: Agency	14
4.11 Switch: FRUs	14
4.12 Switch: Packaging	14
4.13 Switch: Documentation CD-ROM Artwork	16
5.0 PORT CARD	17
5.1 Port Card: Serial Label	17
5.2 Port Card Packaging:	17
5.3 Port Card Shipping Labeling:	17
6.0 POLISH ENTERPRISE SAFETY & REG INFO [*]	18
7.0 [*] CLAMP	22

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 4 of 4
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

1. SCOPE OF DOCUMENT

This document describes the expectations of how HP expects to receive the 2Gb Network Switch and all parts, devices and components associated with the switch. Typical expectations described in this document are:

- Part Numbering and Cross Referencing
- Configuration and revision
- Labeling
- Packaging

This document supercedes any specification described in the Supplier's Product Specification Documentation.

2. HP'S GENERAL REQUIREMENTS

2.1 BAR CODE REQUIREMENTS

- The bar code symbol bar shall be Code 39 (also known as "Code 3 of 9") as specified by the AIM Uniform Symbology Specification Code 39.
- The symbol bar shall start with a minimum "Quiet Zone" of [*] inches and an asterisk "Start" character ((*) in Code 39) where applicable (no adjacent labels). The symbol shall end in the asterisk followed again by a minimum [*] inches of "Quiet Zone".
- The bar code height shall be [*] inches (minimum).

2.2 POWER CORDS

Accessory kit includes a total of [*] power cords ([*] and [*] power, see CSD for part numbers).

Power cords have strict sourcing requirements. Power cords may only be sourced from HP specified vendors and only under the HP part number. No other power cord shall be considered. The power cords to be included with the 12000 switch are manufactured by [*] , part number [*]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 5 of 5
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

3.0 PURCHASED PARTS

HP PART NUMBER / COMPAQ PART NUMBER	BROCADE PART NUMBER	DESCRIPTION	CONTENTS	CONTENT
[*]	[*]	[*]	[*]	[*]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 6 of 6
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

4.0 SWITCH

MODEL NUMBER: [*]

PART NUMBER: [*]
[*]
[*]

DESCRIPTION: HP STORAGEWORKS CORE SWITCH 2/64

4.1 SWITCH CONFIGURATION

ITEM	DESCRIPTION (6/1)	7/26
Chassis Color	[*]	
Chassis Door (metal)	[*]	
Chassis Door (plastic)	[*]	
Chassis Door 2" Badge	[*]	
WWN bezel (plastic)	[*]	
WWN Mylar label	[*]	
WWN 1" Badge	[*]	
Cable Management Tray	[*]	
Agency Certification	[*]	
Cable Pillars	[*]	
Firmware	[*]	
IP Address default	[*]	
Subnetmask	[*]	
Power Supplies	[*]	
Blowers	[*]	

4.2 SWITCH: CONFIGURATION PARAMETERS

CLI Timeout [*]
[Configuration] [*]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 7 of 7
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

4.3 SWITCH: LICENSES

LICENSES	SHIPPING STATUS	HP PN	CPQ PN (SS, SN *)	BROCADE PN
FabricOS 4.0	[*]			
Adv. Webtools	[*]			[*]
Adv. Zoning	[*]			[*]
Fabric Watch	[*]		[*]	[*]
Adv. Perf. Monitoring	[*]		[*]	[*]
LUN Zoning (**)	[*]		[*]	
Qkloop Fabric Assist (**)	[*]		[*]	
Secure Fabric O/S (**)	[*]		[*]	
ISL Trunking	[*]	[*]	[*]	[*]
Extended Fabrics	[*]	[*]	[*]	[*]
Remote Switch	[*]	[*]	[*]	[*]
Repair keys	[*]	[*]	[*]	[*]

(*) [*]

(**) [*] POST FRS

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 8 of 8
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

4.4 SWITCH: ACCESSORY KIT

HPPN: [*]

BROCADE PN: TBD

HP PART NUMBER	CPQ PN	BROCADE PN	DESCRIPTION (HPPN)	QTY
-----	-----	-----	-----	---
[*]		[*]	[*]	[*]

Date: 6/6/2002

Configuration Specification

Page 9 of 9

[*]

Revision E14

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

4.5 SWITCH: RACK MOUNT KIT [*]

DESCRIPTION QTY

[*]

Date: 6/6/2002 Configuration Specification Page 10 of 10
[*] Revision E14 [*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

4.6 SWITCH: LABELS

LABELS

Brocade Std [*]
Product
(Placement:
Front Inside Left
- - SFP side)

Brocade [*]
Serial Number
(Placement:
Front Inside Left
- - SFP side)

Compaq [*]
product label
(includes 2-
5-2 p/n, 6-3
p/n, s/n)
(Placement:
Front Inside Left
- - SFP side)

Switch HP
Serial Number HP Serial Number:[*]
(Placement: [*]
Back of unit)

[*] Serial Number Format:
US = Country of Manufacture
B = Supplier ID, Brocade
0 = Revision 0. To be updated per applicable PCNs
V = Project Identifier
xxxxx = sequential numeric counter starting with 00001 and
not reset when revision level is changed.
(Note: For June 3, 02 launch use serial [*])

HP Part Number
Label HP Part Number: [*]
(Placement: [*]
Back of unit) [*]

5x5 part number in human readable and 3x9 bar code.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

4.7 LABEL LOCATIONS

[*]

4.8 LABEL: [*]

Description: [*]
HP Part Number: [*]
[*]

4.9 LABEL: [*]

Description: [*]
HP Part Number: [*]
[*]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 12 of 12
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

4.10 LABEL: AGENCY

[GRAPHIC IMAGE APPEARS HERE]

4.11 SWITCH: FRUS

HP DESCRIPTION -----	BROCADE PART NUMBERS -----	HP REPLACEMENT PART NUMBER -----	HP EXCHANGE PART NUMBER -----	COMPAQ DESCRIPTION -----
Port Card	[*]		[*]	[*]
Power Supply	[*]	[*]		[*]
Blower	[*]	[*]		[*]
Assembly				
Rear wWN	[*]	[*]		
Assembly				
CP Card	[*]		[*]	[*]
				[*]

4.12 SWITCH: PACKAGING

Brocade Standard Packaging for the switch

HP SHIPPING LABEL

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 13 of 13
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

[*]
Sample only

COMPAQ SHIPPING LABEL

[*]
Sample only

LABEL PLACEMENT: Add the Compaq shipping label on the same side of the shipping crate as the HP shipping label but separated from each other (i.e. opposite corners of the box)

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 14 of 14
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

4.13 SWITCH: DOCUMENTATION CD-ROM ARTWORK

CD-ROM is included in the accessory kit.

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002

Configuration Specification
Revision E14

Page 15 of 15

[*]

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

5.0 PORT CARD

5.1 PORT CARD: SERIAL LABEL

Port Card HP Serial
Number

HP Serial Number:[*]
[GRAPHIC IMAGE APPEARS HERE]

[*]

5.2 PORT CARD: PART NUMBER LABEL (IMAGE NOT SHOWN)

5.3 PORT CARD PACKAGING:

[*] packaging.

5.4 PORT CARD SHIPPING LABELING:

Label must contain:
SHIP TO ADDRESS
DESCRIPTION
HP SERIAL NUMBER
COUNTRY OF ORIGIN
HP PURCHASE ORDER
CE MARK
GOST MARK

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 16 of 16
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

6.0 [*]

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 17 of 17
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 18 of 18
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 19 of 19
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 20 of 20
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

7.0 [*] CLAMP

[*]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 21 of 21
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

8.0 INSTALLATION SHEET SHIPPED WITH PORT CARD

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 22 of 22
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 23 of 23
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 24 of 24
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 25 of 25
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[GRAPHIC IMAGE APPEARS HERE]

[GRAPHIC IMAGE APPEARS HERE]

Date: 6/6/2002
[*]

Configuration Specification
Revision E14

Page 26 of 26
[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (A-3)

HP SUPPLIER QUALITY SYSTEM REQUIREMENTS

Note: The parties intend to amend this Exhibit (A-3) to include the applicable HP Supplier Quality System Requirements for the 12000 Silkworm switch OEM product as soon as such information is made available.

----- HEWLETT-PACKARD CO. -----

This page provides a running history of changes for a multi-page drawing. List all changes below, referencing page number and section number, if applicable. Be concise when describing changes. If extensive revisions have been made, a general statement that the document has been "revised and redrawn" is permissible.

LTR.	REVISIONS	DATE	INITIALS OEM ENGINEER
A	Initial Release	6/05/02	[*]

[GRAPHIC IMAGE APPEARS HERE]
HP PROPRIETARY

This document is the property of Hewlett-Packard Company (HP) and contains confidential and proprietary information of HP. Neither it, nor the information contained herein shall be disclosed to others, or duplicated, or used by other except as authorized by HP writing.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

ASSEMBLY #: N/A

HP P/N: [*]

DATE: JUNE 5, 2002

DESCRIPTION:
12000 SILKWORM SWITCH
SUPPLIER QUALITY/RELIABILITY REQUIREMENTS
DOCUMENT: QUALITY PLAN

BY[*]

[*]

BROCADE 12000 SWITCH
SUPPLIER QUALITY/RELIABILITY
REQUIREMENTS DOCUMENT

Model Numbers:

A6509A - 128 Port Switch

Supplier: Brocade

DOCUMENT REVISION HISTORY
DESCRIPTION

REVISION #	DATE	DESCRIPTION
00	5/05/02	- Initial Release

Printed: 03/26/02

12000 SWITCH

Page: 2 of 9

Drawing Number:
TBD.

SUPPLIER QUALITY/RELIABILITY REQUIREMENTS
DOCUMENT

Filename:
Rubiconqp.doc

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

1. PURPOSE

The purpose of this Quality/Reliability Requirements Document is to establish an understanding and agreement between Hewlett-Packard (HP) and Seller with regard to quality and reliability expectations and responsibilities. The terms Supplier and Seller are used interchangeably in this Quality/Reliability Requirements Document.

It is HP's objective to receive Product of the highest possible quality and reliability with the lowest cost of ownership. The Product must consistently meet or exceed the requirements of this document and the individual specifications applicable to each Product. It is HP's expectation that Supplier shall strive to ship defect-free, fully tested Product as measured at the first operational test at HP. Repaired units are subject to the same Product Specifications as when originally shipped.

HP's objective is to work in close cooperation with Supplier to resolve any quality issue, and expects the Supplier to work diligently to resolve any quality issue.

2. DEFECTIVE PRODUCT:

HP shall inform Supplier of any units or lots that fail, and provide Supplier with yield percentages. Defective units or lots will be shipped to Supplier's facility as instructed by Supplier. Supplier shall test and verify all failed units, and provide the data of failure symptoms observed or NTF (No Trouble Found), on all units returned from HP worldwide manufacturing sites.

[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*]

3. [*] [*]

3.1. [*] [*]

First production shipment to HP will be [*] to verify that product meets all conditions listed in the Configuration Specification. The [*] inspection will include a review of the following items: [*]

3.2. HP INCOMING [*] [*]

All new suppliers must demonstrate relevant process control through a quality system [*]. HP shall thoroughly [*] the [*] customer [*] unit received from the Supplier. If there are any functional failures or cosmetic failures HP has the right to [*] the Supplier's [*]

[*]

All failures require a [*] report completed by the Supplier within [*] after notification. If the Supplier needs the defective unit to determine the root cause, the Supplier shall complete a [*] report within [*] after receipt of the defective unit(s). The report shall contain detailed explanation of the root cause and [*](s) performed. HP shall verify the report during the [*]

3.3. DOCK-TO-STOCK

Product will move to Dock-To-Stock status after successful completion of Incoming [*] as listed in Section 3.2. Upon successful completion of [*] and [*], subsequent shipments will not be inspected as they are received by HP-NSS0.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

ITEM	LOWER BOUNDARY	UPPER BOUNDARY	COMMENTS
Reproduce Failures	1 day	1-4 days	Will notify Customer if longer than stated time
I.D. Root Cause	5 days	5-30 days	Will notify Customer if longer than stated time
Short Term Containment	1 day	1-10 days	Will notify Customer if longer than stated time
Implement CLCA	10 days	10+days	Will notify Customer if longer than stated time

NOTE:- TAT is cumulative, from receipt of unit at repair center

6. QUALITY DATA EXPECTATIONS

Quality data supplied by Supplier shall include, but not be limited to, process yield information and corresponding [*] regarding failures.

6.1. HP'S RESPONSIBILITY

HP shall inform Supplier of In-Process failures that occur at [*] on a [*]y basis.

6.2. SUPPLIER'S RESPONSIBILITY

[*] REPORTS

Supplier shall provide the following reports to HP-NSSO's OEM Engineer on a [*] basis:

- [*] summary of all reports contained in following [*] report section.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

[*] REPORTS

Supplier shall provide the following reports to HP-NSSO's Mass Storage OEM Engineers on a [*] basis:

- [*]

The following is available upon request with reasonable advance notice: History Matrix/ECO log with the following information for example:

- Brocade ECO#
- Implementation Date
- Serial Number Range
- Part Number Revision
- Firmware Revision
- Hardware Revision
- Description of change

OTHER REPORTS

Supplier shall provide the following additional information to the HP Fibre Channel OEM Engineer.

- Failure Analysis (FA) Report upon completion.

7. COMMUNICATION EXPECTATIONS

7.1 PRODUCT CHANGES REQUIRING HP APPROVAL

The evaluation period for changes is covered in the HP/Brocade Purchase Agreement. The intent is to allow HP sufficient time to review the proposed change and Supplier qualification data and to perform additional testing, if necessary. Supplier must notify HP within [*] of upcoming changes in order to assure a smooth implementation. Changes must be communicated in writing in the form of an Engineering Change Request (ECR) document and sent to the OEM Engineer. Changes that must be communicated in writing are:

1. Form, fit or function
2. Significant changes in sources of supply
 - Power supply, printed circuit assemblies (PCA's), fan assembly, wire harnesses, and chassis
3. Significant changes in code or hardware with potential impact on data interface including maintenance updates.

7.2 PROCESS CHANGES REQUIRING HP APPROVAL

Supplier shall notify HP of any major changes to the manufacturing process in writing [*] prior to proposed implementation. These include:

1. Change in manufacturing facility for Product of major sub-components.
2. Change in test times or sample sizes.
3. Addition/deletion of tests, inspections, and/or screens
4. Addition or deletion of automated process steps

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

7.3 SHIPMENT HOLD NOTIFICATION

Supplier shall notify HP verbally of any line-down or ship hold situations that will adversely affect HP shipments or HP's installed base within [*] of such situation occurring. A written analysis of HP's inventory exposure and a recovery plan, if applicable, shall be provided within [*] of such situation occurring.

7.4 [*]

Supplier will maintain a [*] with HP to address all open issues and will maintain a [*]
[*]

8.0 SUPPLIER QUALITY SYSTEM

- A. Supplier is expected to have a quality system in place that meets the requirements of ISO 9000 as a minimum.
- B. Supplier shall control every critical point in the manufacturing/test process and maintain documentation as evidence of such process controls (e.g. control charts).
- C. Supplier shall provide details of its test process. The Supplier shall notify HP of any major changes to the test process.

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Printed: 03/26/02

12000 SWITCH

Page: 9 of 9

- - - - - SUPPLIER QUALITY/RELIABILITY REQUIREMENTS - - - - -

Drawing Number: DOCUMENT

Filename:

TBD. Rubiconqp.doc

3.4 Polybrominated Biphenyls (PBBs) and Polybrominated Biphenyl Ethers (PBBEs)/ Polybrominated Biphenyl Oxides (PBBOs) Restrictions

Plastic parts, components, materials and products must not contain polybrominated biphenyls or polybrominated biphenyl ethers, also known as polybrominated biphenyl oxides, flame retardants. Specific PPBs and PBBEs, include but are not limited to, those listed in Table 8.3.

3.5 Polychlorinated Biphenyl (PCB) and Polychlorinated Terphenyls (PCT) Restrictions

Polychlorinated biphenyls (PCB) and polychlorinated terphenyls (PCT) must not be present in parts, components, materials, or products.

4. BATTERY CONTENT RESTRICTIONS

The content restrictions specified in this Section apply to all batteries purchased by HP, and to all batteries contained in any parts, components or products purchased by Hewlett-Packard.

4.1 Mercury Restrictions

4.1.1 Batteries must not contain mercury exceeding 5 part per million (5 PPM) by weight (5 mg/kg).

4.1.2 Products, parts and components must not contain mercuric oxide batteries.

4.2 Cadmium Restrictions

The total cadmium content of alkaline-manganese batteries must not exceed 10 parts per million (10 PPM) by weight (10 mg/kg).

5. PACKAGING MATERIALS CONTENT RESTRICTIONS

The content restrictions specified in this section apply to all packaging materials purchased by HP and used to package HP products that are incorporated in the products HP sells.

5.1 ODS Restrictions in Packaging Materials

CFCs and HCFCs listed in Tables 8.1 and 8.2 must not be used in plastic foam packaging materials, for example, as foaming agents.

5.2 Heavy Metals Restrictions in Packaging Materials.

Packaging materials must not contain any amount of lead, mercury, cadmium, or hexavalent chromium as an intentionally added element. The sum concentration of incidental lead, mercury, cadmium, and hexavalent chromium must not exceed 100 parts per million, 100 PPM, by weight (100 mg/kg).

Date: 09/29/99	GENERAL	Page 3 of 8
Changes since previous issue noted by approval: [*]	SPECIFICATION FOR ENVIRONMENT	DWG. [*] Rev. D

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Table 8.2 - Ozone Depleting Substances Prohibited From Products

Group I Chlorofluorocarbons, CFCs (includes isomers of listed substances)

[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]

Group II Other Fully Halogenated CFCs (includes isomers of listed substances)

[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]
[*]	[*]	[*]	[*]

Group III Halons (includes isomers of listed substances)

[*]	[*]	[*]	[*]
[*]	[*]		

Group IV

[*]	[*]
-----	-----

Group V

[*]	[*]
-----	-----

Group VI

[*]	[*]
-----	-----

Date: 09/29/99	GENERAL	Page 5 of 8
Changes since previous issue	SPECIFICATION FOR	[*]
noted by approval: [*]	ENVIRONMENT	Rev. D

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

SPECIFICATION CONTROL DRAWING

TABLE 8.4 - LABELING REQUIREMENTS FOR BATTERIES, CONSUMER PRODUCTS
CONTAINING BATTERIES, AND THEIR PACKAGING

PRODUCT TYPE	SYMBOL	WORDING ON LABEL
ALKALINE BATTERIES	SEE NOTE 1 BELOW	- MANUFACTURER'S NAME AND ADDRESS
LEAD-ACID (SEALED) BATTERIES AND THEIR PACKAGING	[GRAPHIC IMAGE APPEARS HERE]	- MANUFACTURER'S NAME AND ADDRESS - Pb - "BATTERY MUST BE RECYCLED."
LITHIUM AND LITHIUM ION BATTERIES	SEE NOTE 1 BELOW	- MANUFACTURER'S NAME AND ADDRESS - LITHIUM OR LITHIUM ION
NICKEL-CADMIUM BATTERIES AND THEIR PACKAGING	[GRAPHIC IMAGE APPEARS HERE]	- MANUFACTURER'S NAME AND ADDRESS - Ni-Cd - "BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY."
NICKEL METAL HYDRIDE BATTERIES	SEE NOTE 1 BELOW	- MANUFACTURER'S NAME AND ADDRESS - "CONTAINS NICKEL METAL HYDRIDE (NiMH) BATTERY."
RECHARGEABLE CONSUMER PRODUCTS CONTAINING NOT EASILY ADDRESS REMOVABLE SEALED LEAD ACID BATTERIES	[GRAPHIC IMAGE APPEARS HERE]	MANUFACTURER'S NAME AND - "CONTAINS SEALED LEAD BATTERY. BATTERY MUST BE RECYCLED."
RECHARGEABLE CONSUMER PRODUCTS CONTAINING NOT EASILY REMOVABLE NICKEL-CADMIUM BATTERIES	[GRAPHIC IMAGE APPEARS HERE]	- MANUFACTURER'S NAME AND ADDRESS - "CONTAINS NICKEL-CADMIUM BATTERY. BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY."
PACKAGING OF RECHARGEABLE CONSUMER PRODUCT CONTAINING ADDRESS SEALED LEAD BATTERY	[GRAPHIC IMAGE APPEARS HERE]	- MANUFACTURER'S NAME AND - "CONTAINS SEALED LEAD BATTERY. BATTERY MUST BE RECYCLED"
PACKAGING OF RECHARGEABLE CONSUMER PRODUCT CONTAINING NICKEL-CADMIUM BATTERY	[GRAPHIC IMAGE APPEARS HERE]	- MANUFACTURER'S NAME AND ADDRESS - "CONTAINS NICKEL-CADMIUM BATTERY. BATTERY MUST BE RECYCLED OR DISPOSED OR PROPERLY."

NOTE 1: LABELING REQUIREMENT FOR THE NETHERLANDS

[GRAPHIC IMAGE APPEARS HERE]	This label must be on the packaging of the battery (if sold separate from the product) or in the manual of the product containing the battery with statements about removal of the battery.
------------------------------	---

Date: 09/29/99	GENERAL	Page 8 of 8
Changes since previous issue noted by approval: [*]	SPECIFICATION FOR ENVIRONMENT	DWG [*] Rev. D

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

EXHIBIT (C)
PRICING & FEES

OEM PRODUCT PRICING.

SHIPPING TERMS. Shipping terms for the SILKWORM 12000 during the allocation period of [*] shall be DDU (port) pursuant to Incoterms 2000. HP shall be the U.S. Principal Party in Interest.

ORDERS. All Orders for the SILKWORM 12000 shall be "Discrete Purchase Orders" which shall mean Orders that are not pursuant to nor subject to the [*] model [*] nor its associated fees. The lead- time for the forecasted Orders shall be [*] pursuant to the [*] forecast. Brocade shall use commercially reasonable efforts for un-forecasted Orders.

PRODUCT WARRANTY. The extended warranty of period shall be for [*] commencing upon shipment. Such warranty is for FRUs and hardware exclusive of software which has a warranty of [*].

SILKWORM 12000 BASE

HP PART DESCRIPTION: Silkworm 12000 32-port Base Fibre Channel Fabric Switch
SUPPLIER MODEL NO./DESCRIPTION: [*]

TIME PERIOD	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]

16-PORT MODULES
HP PART DESCRIPTION: Upgrade 16-port Auto-sensing 1-2 Gbit/second Module

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

SUPPLIER MODEL NO./DESCRIPTION: [*]

TIME PERIOD	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]

A La Carte SOFTWARE

SOFTWARE / FIRMWARE TITLE	HP PURCHASE PRICE
[*]	[*]
[*]	[*]
[*]	[*]
[*]	[*]

FRU PRODUCT PRICING.

HP SERVICE FRU'S					
DESCRIPTION	REPAIR PRICING	[*]	[*]	[*]	[*]
SW12000 Chassis FRU, includes backplane, blower backplane & harness, AC harness (does not include blower assys, power supplies, WWN card, door, cable tray)	[*]	[*]	[*]	[*]	[*]
FRU, 16 Port Auto-Sensing 1-2 Gbit/Sec Module	[*]	[*]	[*]	[*]	[*]
FRU, SW12000 Control Processor	[*]	[*]	[*]	[*]	[*]
FRU, SW12000 Power Supply, 180-264VAC, 1000W	[*]	[*]	[*]	[*]	[*]
FRU, SW12000 rack mount kit. Includes front & rear brkts, bottom support rack rails	[*]	[*]	[*]	[*]	[*]
FRU, SW12000 Blower Assembly (single). Includes blower, control board, housing	[*]	[*]	[*]	[*]	[*]
FRU, SW12000 Rear WWN Bezel, LED Status Panel cosmetic trim	[*]	[*]	[*]	[*]	[*]
FRU, SW12000 WWN board assembly	[*]	[*]	[*]	[*]	[*]
FRU, SW12000 chassis door	[*]	[*]	[*]	[*]	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

AMENDMENT NO. 4
Page 2 of 3

FRU, SW12000 Switch card slot filler panel	[*]	[*]	[*]	[*]	[*]
FRU, SW12000 cable management tray	[*]	[*]	[*]	[*]	[*]
FRU, SW12000 cable management pillar (16)	[*]	[*]	[*]	[*]	[*]

* CERTAIN INFORMATION ON THIS PAGE HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SEC. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS.

Exhibit 12.1

Statement of Computation of Ratio of Earnings to Fixed Charges
(in thousands, except ratios)

	Nine Months Ended		Fiscal Year Ended				
	July 27, 2002	July 28, 2001	Oct. 27, 2001	Oct. 28, 2000	Oct. 31, 1999	Oct. 31, 1998	Oct. 31, 1997
Earnings (loss) from continuing operations before taxes	\$ 61,967	\$ 80,755	\$ 17,802	\$ 88,316	\$ 2,591	\$ (15,111)	\$ (9,619)
Fixed charges from continuing operations							
Interest expense and amortization of debt discount and issuance costs on all indebtedness	8,057	--	--	45	459	557	351
Interest included in rent	4,838	4,277	5,507	1,381	428	268	165
Total fixed charges from continuing operations	12,895	4,277	5,507	1,426	887	825	516
Earnings (loss) before taxes and fixed charges	\$ 74,862	\$ 85,032	\$ 23,309	\$ 89,742	\$ 3,478	\$ (14,286)	\$ (9,103)
Ratio of earnings to fixed charges(1)	5.8x	19.9x	4.2x	62.9x	3.9x	(17.3x)(2)	(17.6x)(2)
Coverage deficiency	\$ --	\$ --	\$ --	\$ --	\$ --	\$ 15,111	\$ 9,619

(1) The ratio of earnings to fixed charges was computed by dividing earnings (loss) from continuing operations before taxes by fixed charges from continuing operations for the periods indicated. Fixed charges from continuing operations include (i) interest expense and amortization of debt discount and issuance costs on all indebtedness, and (ii) one-third of all rental expense, which the Company considers to be a reasonable approximation of the interest factor included in rental expense.

(2) Earnings were inadequate to cover fixed charges. For the years ended October 31, 1998 and October 31, 1997, the Company needed additional earnings of \$15.1 million and \$9.6 million, respectively, to achieve a ratio of earnings to fixed charges of 1.0x.

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Gregory L. Reyes, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Brocade Communications Systems, Inc. on Form 10-Q for the quarterly period ended July 27, 2002 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report fairly presents in all material respects the financial condition and results of operations of Brocade Communications Systems, Inc.

By: /s/ GREGORY L. REYES

Gregory L. Reyes
Chairman of the Board and
Chief Executive Officer

I, Antonio Canova, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Brocade Communications Systems, Inc. on Form 10-Q for the quarterly period ended July 27, 2002 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report fairly presents in all material respects the financial condition and results of operations of Brocade Communications Systems, Inc.

By: /s/ ANTONIO CANOVA

Antonio Canova
Vice President, Finance and
Chief Financial Officer