

UNITED STATES OF AMERICA  
BEFORE THE FEDERAL TRADE COMMISSION

COMMISSIONERS: Maureen K. Ohlhausen, Acting Chairman  
Terrell McSweeney

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<b>In the Matter of</b>	)	
	)	
	)	
<b>Broadcom Limited,</b>	)	
<b>a corporation; and,</b>	)	
	)	<b>Docket No. C-</b>
	)	
<b>Brocade Communications Systems, Inc.</b>	)	
<b>a corporation.</b>	)	
	)	
_____	)	

**COMPLAINT**

Pursuant to the Clayton Act and the Federal Trade Commission Act, and its authority thereunder, the Federal Trade Commission (“Commission”), having reason to believe that Respondent Broadcom Limited (“Broadcom”), a corporation subject to the jurisdiction of the Commission, has agreed to acquire Respondent Brocade Communications Systems, Inc. (“Brocade”), a corporation subject to the jurisdiction of the Commission, in violation of Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act (“FTC Act”), as amended, 15 U.S.C. § 45, and it appearing to the Commission that a proceeding in respect thereof would be in the public interest, hereby issues its Complaint, stating its charges as follows:

**I. RESPONDENTS**

1. Respondent Broadcom Limited is a limited company organized, existing, and doing business under and by virtue of the laws of the Republic of Singapore, with a principal place of business located at 1320 Ridder Park Drive, San Jose, CA 95131.
2. Respondent Brocade Communications Systems, Inc. is a corporation organized, existing, and doing business under and by virtue of the laws of the State of Delaware, with its executive office and principal place of business located at 130 Holger Way, San Jose, CA 95134.

3. Respondent Broadcom is engaged in, among other activities, the design, manufacture, and sale of application specific integrated circuits (“ASICs”) for fibre channel switches.
4. Respondent Brocade is engaged in, among other activities, the design, manufacture, and sale of fibre channel switches.
5. Respondents are, and at all times relevant herein have been, engaged in commerce, as “commerce” is defined in Section 1 of the Clayton Act, as amended, 15 U.S.C. § 12, and are corporations whose businesses are in or affect commerce, as “commerce” is defined in Section 4 of the FTC Act, as amended, 15 U.S.C. § 44.

## **II. THIRD PARTY CISCO SYSTEMS, INC.**

6. Cisco Systems, Inc. (“Cisco”) is a corporation organized, existing, and doing business under and by virtue of the laws of the State of California, with its executive office and principal place of business located at 170 West Tasman Drive, San Jose, CA 95134.
7. Cisco is engaged in, among other activities, the design, manufacture, and sale of fibre channel switches.

## **III. THE PROPOSED ACQUISITION**

8. Pursuant to an Agreement and Plan of Merger dated November 1, 2016, the Respondents agreed that Broadcom would acquire Brocade for approximately \$5.9 billion (“the Acquisition”), including \$400 million in debt. The Acquisition is subject to Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18.

## **IV. THE RELEVANT MARKET**

9. For the purposes of this Complaint, the relevant line of commerce in which to analyze the effects of the Acquisition is fibre channel switches. The fibre channel switch is part of a fibre channel storage area network, which employs the fibre channel interconnect protocol to enable stable, high-throughput data transfers between servers and storage arrays in data centers. Fibre channel switches provide quick and secure access to large amounts of data and are often used for mission-critical applications. Fibre channel switch customers would not turn to alternative switching technologies in response to a small but significant price increase because doing so would be risky and expensive.
10. Each fibre channel switch contains an ASIC, which is an integrated circuit that is custom-tailored to carry out the functions of the fibre channel switch. It is the most costly and technically complex component of the switch. The ASIC is designed through collaboration between the switch manufacturer and an ASIC provider. Switch manufacturers typically develop proprietary intellectual property, and ASIC providers, like Respondent Broadcom, add intellectual property libraries, design oversight capabilities, and oversee the production of the ASICs at a third-party foundry in order to create a commercial ASIC for a switch manufacturer.

11. For the purposes of this Complaint, the relevant geographic market in which to analyze the effects of the Acquisition on the fibre channel switch market is worldwide. The size and weight of fibre channel switches generally make it economical to ship them long distances.

## V. STRUCTURE OF THE MARKET

12. The worldwide market for fibre channel switches is highly concentrated, consisting of a duopoly between Brocade and Cisco.

## VI. EFFECTS OF THE ACQUISITION

13. Broadcom's access to Cisco's competitively sensitive confidential information, provided in furtherance of its ongoing ASIC supply relationship with Broadcom, may substantially lessen competition by increasing the likelihood that Broadcom may unilaterally exercise market power or by increasing the likelihood of coordinated interaction among the two competitors in the fibre channel switch market, resulting in the increased probability that customers would pay higher prices for fibre channel switches and that innovation will be lessened.

## VII. ENTRY CONDITIONS

14. Entry into the worldwide fibre channel switch market is not likely to occur in a timely, likely, or sufficient magnitude, character and scope to deter or counteract any anticompetitive effects created by the proposed Acquisition. Entry is unlikely in light of slowly declining demand for fibre channel switches in a mature market, customers that tend to stay with one fibre channel switch manufacturer for extended periods of time, and the significant capital costs required for entry.

## VIII. VIOLATIONS CHARGED

15. The allegations contained in Paragraphs 1 through 14 above are hereby incorporated by reference as though fully set forth here.

16. The Agreement described in Paragraph 8 constitutes a violation of Section 5 of the FTC Act, as amended, 15 U.S.C. § 45.

17. The Acquisition described in Paragraph 8, if consummated, would constitute a violation of Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18 and Section 5 of the FTC Act, as amended, 15 U.S.C. § 45.

**WHEREFORE, THE PREMISES CONSIDERED,** the Federal Trade Commission on this \_\_\_\_ day of \_\_\_\_\_, 2017, issues its Complaint against said Respondents.

By the Commission.

Donald S. Clark  
Secretary

SEAL: