

3. Since 2016, Broadcom has entered and maintained agreements with customers that require customers to purchase, use, or bid Monopolized Products and Related Products from Broadcom on an exclusive or a non-exclusive basis. Broadcom secured these restrictive contract terms in part by threatening to retaliate against “disloyal” customers in various ways, including by withholding needed Monopolized Products, by charging higher prices for needed Monopolized Products, or by withholding support for previously purchased Monopolized Products. Broadcom employed threats of retaliation against other customers to deter these customers from using products supplied by Broadcom’s rivals. This conduct supplemented the foreclosure effect of its written agreements. Through these contracts and coercive tactics, Broadcom foreclosed rivals from a substantial share of the relevant

including software support and maintenance, troubleshooting, bug fixes, software updates and upgrades, and testing.

RELEVANT PRODUCTS

16. This action concerns the following products, each comprising a type of component incorporated into Customer Devices (and each, a “Relevant Product”)
- (a) A Broadcast STB SOC is an integrated circuit that serves as the core component within, and directs functions and features of, a Broadcast STB
 - (b) A DSL Broadband SOC is an integrated circuit that serves as the core component within, and directs functions and features of, a Broadband Device that accesses internet service via a DSL network
 - (c) A Fiber Broadband SOC is an integrated circuit that serves as the core component within, and directs functions and features of, a Broadband Device that accesses internet service via a fiber optic network;
 - (d) A Streaming STB SOC is an integrated circuit that serves as the core component within, and directs functions and features of, a Streaming STB
 - (e) A Cable Broadband SOC is an integrated circuit that serves as the core component within, and directs functions and features of, a Broadband Device that accesses internet service via a cable network;
 - (f) A Wi-Fi Chip is an integrated circuit that enables an STB or Broadband Device to connect to a wireless network
 - (g) A Front-End Chip for an STB is an integrated circuit that converts incoming analog signals to digital signals to be read by the SOC in the STB; and
 - (h) A Front-End Chip for a Broadband Device is an integrated circuit that converts incoming analog signals to digital signals to be read by the SOC in the Broadband Device.

19. One competitive threat arose from efforts by leading Service Providers and OEMs to lessen their dependence on Broadcom and to foster competition in Customer Device component markets. Both Service Providers and OEMs sought component supplier diversity for multiple reasons, including to promote competitive pricing and to ensure continuity of supply. OEMs also sought supplier diversity to maximize their ability to meet the component supplier preferences of Service Provider customers.
20. To this end, leading Service Providers at times have asked OEMs to submit multiple responses to RFPs, with each response incorporating components from a different supplier, or have asked OEMs to design and bid a device using particular identified component suppliers. OEMs, in turn, have sought to comply with these requests from their customers.
21. At other times, leading Service Providers sought to provide opportunities for capable but less established suppliers to gain experience and scale by, for example, considering them for partial design awards involving relatively low end versions of Relevant Products, including Monopolized Products. And in 2016, at least one major OEM actively sought to develop products using non-Broadcom suppliers for Monopolized Products.
22. An important factor affecting demand for Relevant Products is that customers are increasingly “cutting the cord” to traditional broadcast

exclusive or near-exclusive basis. As a result, sales opportunities for Broadcom rivals were severely restricted.

OEM Agreements

26. Between 2016 and the present, Broadcom negotiated and entered into agreements with leading OEMs, pursuant to which the OEMs agreed, contract and renewal terms spanning multiple years, to purchase, use, or bid Broadcom Relevant Products in STBs and Broadband Devices on an exclusive or near-exclusive basis.
27. Broadcom induced OEMs to enter these agreements by communicating that OEMs that broadly committed to Broadcom would be treated as favored or “strategic” partners. Customers that did not broadly commit to Broadcom would be mere “tactical” customers, facing higher prices and less favorable price terms and conditions than their rivals, including disadvantageous technology access, product allocation, delivery lead times, and bid support. In other words, OEMs that did not accept exclusivity, the “tactical” customers, would find themselves at a significant commercial disadvantage relative to other, competing OEMs that did agree to purchase exclusively from Broadcom.
28. In all, Broadcom entered exclusive or near-exclusive agreements with at least ten OEMs, which collectively are responsible for a majority of STB and Broadband Device sales worldwide, and even higher percentages of S9 (nmmTd 2 (e)4 ctg) (i)-2 (o) (i)-2 (o) (i6-0.004 Tf .

Services for Broadcom-based devices from anyone other than Broadcom, nor can they perform these services themselves.

33. This initiative resulted in a series of agreements with major Service Providers to which the Service Provider committed for contract terms spanning multiple years to use Broadcom Relevant Products on an exclusive or non-exclusive basis for their STBs and Broadband Devices
34. These Service Provider agreements, including agreements with key U.S. Service Providers, have reinforced and exacerbated the effects of Broadcom's OEM agreements on competition, including foreclosing rivals from significant sales opportunities.

Monitoring and Enforcement

35. Broadcom actively monitored customer compliance with its restrictive agreements, refusing to grant requested exceptions to exclusivity even where Broadcom was not cost competitive or did not have an appropriate solution for a given RFP.
36. Broadcom communicated to customers that disloyalty as to even a single bid involving a single Relevant Product could mean loss of strategic partner terms, that is, the favorable price, supply, and support terms to which customers were otherwise entitled under their agreements, across numerous product lines.
37. Broadcom induced OEM counterparties to withdraw bids they had made using a rival's Relevant Product under the threat that Broadcom otherwise would charge higher prices for other products, including Monopolized Products.

Threats and Retaliation

38. Broadcom supplemented its formal, written agreements with ad hoc retaliation and threats

significantly increased prices. As a result, and in order to reverse these adverse actions, the

significantly smaller market presence than Broadcom and focus on lower products. Broadcom has a recent track record of supplying all of the Broadcast STB SOC requirements of nearly all of the largest United States and European Service Providers. For the highend Broadcast STBs that these Service Providers need, Broadcom is effectively the only supplier available.

51. In both the DSL and Fiber Broadband SOC markets, Broadcom describes itself as holding a “dominant #1” market share position. In each of these markets, Broadcom’s market position dwarfs those of its rivals, which sell devices that target the low to middle tiers of these markets.
52. Broadcom is one of the few significant suppliers in each of the markets for Streaming STB SOCs, Cable Broadband SOCs, WiChips for STBs or Broadband Devices, Front End Chips for STBs, and Front End Chips for Broadband Devices (collectively, the “Related Products”).
53. The markets for Relevant Products are concentrated and have significant barriers to entry and expansion. Such barriers include the need to invest significant time and to invest sunk costs in capital resources to (i) research, develop and maintain current technological capabilities; (ii) develop and maintain business and engineering relationships with OEMs and Service Providers; and (iii) participate, together with OEMs, in resource intensive Service Provider tender and design processes, from initial information requests through formal proposals, selection, qualification, production, and testing. In addition to these and other structural barriers, Broadcom’s anticompetitive practices as alleged herein have created further barriers to entry and expansion by limiting the number of OEM partners and the volume of sales available to would-be rivals.

COMPETITIVE EFFECTS

54. Broadcom’s actions described above have foreclosed competitors from a substantial share of each of the relevant markets. This has harmed price and non-price competition and reduced innovation, as described below.
55. Broadcom’s conduct has also reduced customer choice. Service Providers and OEMs wish to diversify their supply base and work with multiple component suppliers in order to increase price competition, enhance innovation, and ensure security of supply. Broadcom’s

as amended, 15 U.S.C.4§. Such acts and practices, or the effects thereof, will continue or recur in the absence of appropriate