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Intel Corporation

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE

INTEL CORPORATION, Plaintiff, v. FORTRESS INVESTMENT GROUP LLC, FORTRESS CREDIT CO. LLC, VLSI TECHNOLOGY LLC, and DSS TECHNOLOGY MANAGEMENT, INC., Defendants.	Case No. **COMPLAINT** **JURY TRIAL DEMANDED**

Plaintiff Intel Corporation ("Intel") on personal knowledge as to its own acts, and on information and belief as to all other acts based on its own and its attorneys' investigation, by and through its attorneys, alleges as follows:

INTRODUCTION

1. Intel brings this action under Sections 1 and 2 of the Sherman Act and Sections 4 and 7 of the Clayton Act, 15 U.S.C. §§ 1, 2, 15, and 18; under Cal. Bus. & Prof. Code § 17200 et seq.; and to prevent and restrain Defendants' anticompetitive conduct and other violations of the law.

2. Rather than promote the progress of science and useful arts, patent assertion entities ("PAEs"), including Defendants, that aggressively pursue meritless litigation have long been recognized to harm and deter innovation. For example, one study estimated that patent litigation brought by PAEs in the United States resulted in expenditures of $29 billion in 2011 for licensing fees, legal fees, and other costs of responding to PAE litigation.[1] Another study found, by looking at the impact on stock price, that lawsuits by PAEs from 1990 through 2010 were responsible for the defendants losing half a trillion dollars.[2] And those losses are not offset by corresponding gains to patent holders that promote innovation. One study found that the profits received by PAEs from litigation amounted to less than 10% of the lost share value of companies targeted by the PAEs.[3]

3. Based on such studies, the President's Council of Economic Advisers, the National Economic Council, and the Office of Science & Technology Policy warned in a 2013 report that "Patent Assertion Entities . . . focus on aggressive litigation, using such tactics as: . . . creating shell companies that make it difficult for defendants to know who is suing them; and asserting that their patents cover inventions not imagined at the time they were granted."[4] Further, the report concluded that PAEs "have had a negative impact on innovation and economic growth."

4. Recognition of the threat posed by improper patent assertions has led to judicial determinations clarifying the law, and legislative changes with the potential to curb meritless

[1] James Bessen; Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 Cornell L. Rev. 387 (2014).

[2] James Bessen; Jennifer Ford; Michael J. Meurer, *The Private and Social Costs of Patent Trolls*, 34 Regulation 26 (2011).

[3] James Bessen; Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 Cornell L. Rev. 387 (2014).

[4] Executive Office of the President, *Patent Assertion and U.S. Innovation* (June 2013).

litigation. In 2011, the U.S. Court of Appeal for the Federal Circuit struck down the overreaching presumption that, as a rule of thumb, infringement of a single patent warranted twenty-five percent of the product's profit. The same year, Congress enacted the Leahy Smith America Invents Act, including *inter partes* review procedures through which the Patent Trial and Appeal Board ("PTAB") of the U.S. Patent & Trademark Office ("USPTO") can be asked to review whether issued patents are actually valid. And in 2014, the Supreme Court held in *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014), that inventions directed to abstract ideas could not be patented unless they contain an "inventive concept" beyond implementation of the abstract idea in computer code. These and other measures have started to level the playing field by making it more difficult for PAEs to impose leverage of inflated damages exposure and to assert invalid patents.

5. In 2016, the Council of Economic Advisers returned to the subject of PAEs, observing that research since 2013 continues to show "that a substantial amount of patent litigation in the United States, often with little substantive merit, often arises from certain types of NPEs called 'patent assertion entities.'"[5] But the Council noted that legislative and judicial actions, such as those described above, are "promising in that all of them should reduce the level of frivolous patent litigation."

6. In the face of these challenges, PAEs have evolved. PAEs have increasingly been partnering with investment firms to fuel their litigation. Having deep-pocketed investment firms standing behind them has made PAEs only more aggressive. Indeed, to meet the expectations of their new investors for high returns, PAEs must act ever more aggressively. These new investors are content to incur loss after loss so long as they have the chance to hit a windfall reward that will justify their investment. Patent assertion thus becomes simply a numbers game disassociated from the merits of the underlying patents, with PAEs and their investors betting that serial assertions with aggressive demands will strike a jackpot eventually making up for many other losses. This

[5] Council of Economic Advisers Issue Brief, *The Patent Litigation Landscape: Recent Research and Developments* (March 2016).

strategy of repeated assertions without regard to the merits of the patents requires aggregating a large patent portfolio.

7. A central player in this emerging investment strategy is Fortress Investment Group LLC ("Fortress"). Fortress is an investment firm that went public in 2007. Fortress's shares traded at over $35 per share after going public but one decade later, Fortress was struggling with poor returns and its share price had plummeted to around $5 per share in 2017. Fortress was acquired that year by SoftBank Group Corp. for $3.3 billion. Fortress contends it is "a leading, highly diversified global investment manager" and claims to have approximately $39.2 billion of assets under management as of March 31, 2019. One way in which Fortress has tried to turn around its performance and justify SoftBank's investment in it is through increased speculation on patent assertions.

8. Intel brings this complaint to end a campaign of anticompetitive patent aggregation by Fortress and a web of PAEs that Fortress owns or controls. Fortress has used its stable of PAEs to aggregate a massive portfolio of patents that purportedly read on high-tech consumer and enterprise electronic devices and components or software therein and processes used to manufacture them. By employing a network of PAEs that it either owns or controls, Fortress has created a web of entities that obscures Fortress's puppeteering role in this scheme. Rather than enhancing efficiency, Fortress uses aggregation to undermine it by creating a structure in which Fortress and its PAEs benefit by asserting weak patents—i.e., those that never would have been asserted by their former owners—in order to stretch the resources of their targets and increase the possibility that those weak patents will improperly be found valid and infringed or the prospect that a target (like Intel) will agree to a license to resolve the threat posed by Fortress and its PAEs. Thus, rather than promoting the procompetitive benefits of the patent system by increasing innovation and output, Fortress's scheme has the opposite effect. Fortress and its PAEs acquire and seek to monetize meritless patents that never would have been asserted by their original owners, imposing a tax on the electronics industry that increases prices, decreases output, and ultimately harms consumers. To the extent that Fortress and its PAEs have patents that would

actually be of value to potential licensees, the transfer of those patents to Fortress's control limits access to them because those patents are now held by entities that have no incentive to license patents in a way that captures royalties that are commensurate with their actual value. Instead, those entities have incentives to obtain excessive monopoly rents by exploiting patent portfolios that aggregate the valuable patents with many meritless patents.

9. Through its anticompetitive aggregation scheme, Fortress has engaged in anticompetitive conduct in creating a portfolio of patents that purportedly read on electronic devices and components or software therein and processes used to manufacture them that allows it to charge far more than the value of the inventive contributions (if any) of the patents and of competitive prices for licenses. Fortress and its PAEs seek to use that ill-gotten power to extract and extort exorbitant revenues unfairly and anticompetitively from Intel, and other suppliers of electronic devices or components or software for such devices and ultimately from consumers of those products. Fortress's aggregation is thus intended for an anticompetitive purpose—to invest in patents at costs lower than the holdup value of the patents to ensnare as many potential licensees as possible and to allow it and its PAEs to assert as many possible claims of infringement to tax the commercial use of existing technology at rates beyond the actual value (if any) of the aggregated patents.

10. In furtherance of the anticompetitive scheme, Fortress and its PAEs have deployed patents in waves of lawsuits against their targets without regard for the merits of the claims. Rather than licensing and litigating based on the merits of the patents, Fortress and its PAEs operate based on volume and repetition, targeting the resolve of the targets instead of establishing the merits and value of the patents. Given the size of the portfolio, Fortress and its PAEs can deploy patent after patent in case after case against their targets with the threat of ever more patent assertions and ever more litigation. Faced with this threat, many victims have agreed to settle rather than to challenge Fortress and its PAEs for amounts that reflect not the merits of the underlying patents but the effectiveness of the Fortress model. Thus, Fortress and its PAEs foreclose the possibility—which existed before aggregation—that litigation can be an economic alternative to licensing patents.

11. Intel brings this action to remedy the harms that it has already suffered from Defendants' violations of federal antitrust and state unfair competition laws and to prevent further harm to itself, the broader electronics industry, and U.S. consumers.

PARTIES

12. Plaintiff Intel develops, manufactures, and sells integrated digital technology products. Intel is a corporation organized and existing under the laws of the State of Delaware, having its principal place of business within this District at 2200 Mission College Boulevard, Santa Clara, California.

13. Defendant Fortress Investment Group LLC claims to be a Delaware limited liability company. Fortress does business and maintains an office within this District at One Market Plaza, Spear Tower, 42nd Floor, San Francisco, California.

14. Defendant Fortress Credit Co. LLC ("Fortress Credit") claims to be a Delaware limited liability company with its principal place of business at 1345 Avenue of Americas, 46th Floor, New York, New York. Fortress Credit is registered with the California Secretary of State to do business in California and also maintains an office within this District at One Market Plaza, Spear Tower, 42nd Floor, San Francisco, California. Fortress Credit is an affiliate of Fortress.

15. Defendant VLSI Technology LLC ("VLSI") claims to be a Delaware limited liability company with a registered office at Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware.

16. Defendant DSS Technology Management, Inc. ("DSS") claims to be a Delaware corporation with a principal place of business at 1650 Tyson's Boulevard, Suite 1580, Tyson's Corner, Virginia.

JURISDICTION AND VENUE

17. This Court has jurisdiction over the federal claims alleged under 28 U.S.C. §§ 1331 and 1337(a). This Court has jurisdiction over the unfair competition claims arising under state law pursuant to 28 U.S.C. § 1367(a). The Court may grant declaratory relief in this action pursuant to 28 U.S.C. §§ 2201 and 2202.

18. Venue is proper in this District pursuant to, at least, 15 U.S.C. § 22 and/or 28 U.S.C. § 1391(b) and (c) because, during the relevant period, Defendants resided, transacted business, were found, or had agents in this District, and/or because a substantial portion of the affected interstate trade and commerce described herein has been carried out in this District. In particular, Intel has addressed Defendants' anticompetitive conduct described herein from its headquarters in this District, including addressing licensing demands and coordinating the defense of Defendants' litigation, much of which has occurred in this District. Further, Eran Zur, a Managing Director in Fortress's San Francisco office, runs Fortress's Intellectual Property Group, which has directed and controlled the anticompetitive conduct described herein.

19. This Court has personal jurisdiction over each Defendant based on its national contacts with the United States as a whole pursuant to 15 U.S.C. § 22, as well as Defendants' relevant contacts with this judicial district. Defendants have conducted and continue to conduct business in this District and/or have engaged in continuous and systematic activities in this District, including licensing activities, demands, negotiations, and litigation directly or through their agents. Defendants have minimum contacts with this forum such that the exercise of jurisdiction over them would not offend traditional notions of fair play and substantial justice.

INTRADISTRICT ASSIGNMENT

20. The appropriate intradistrict assignment is in the San Jose Division. Under Civil Local Rule 3-2(c), a civil action shall be assigned to the division "serving the county in which the action arises." An action "arises in the county in which a substantial part or the events or omissions which give rise to the complaint occurred." Civ. L.R. 3-2(c). Here, a substantial part of those events or omissions occurred in Santa Clara County, where Intel is headquartered and where a substantial portion of the events set forth in this Complaint have a locus. As described above, Intel has addressed Defendants' litigation and licensing demands from its headquarters in Santa Clara County. Civil actions arising in Santa Clara County "shall be assigned to the San Jose Division." *Id*. at 3-2(e).

I. FORTRESS'S ANTICOMPETITIVE PATENT AGGREGATION SCHEME

21. Fortress describes its investing approach as "making control-oriented investments in cash flow generating assets." When it comes to patent investments, Fortress has taken its "control-oriented" approach to an extreme. Fortress's model is to condition its investments in PAEs on terms so severe that the PAEs have no choice but to make aggressive and reckless patent assertions to attempt to generate the revenue required to meet their obligations to Fortress. When they fail to do so—as is often the case—Fortress steps in and assumes even more control and/or ownership of the patents, allowing it to ratchet up the aggressiveness of the assertions. In other instances, such as with VLSI, Fortress has skipped this intermediary step of finding a partner to do its bidding and partnered with NXP B.V., NXP USA, Inc., and their related entities (collectively, "NXP") to acquire the patents through a subsidiary outright from the start. The result is that Fortress has either acquired or controls a portfolio of well over a thousand U.S. patents for high-tech consumer and enterprise electronic devices and components or software therein and processes used to manufacture them to deploy against its targets.

22. Fortress has targeted suppliers of high-tech consumer and enterprise electronic devices or components or software for such devices because they provide attractive targets for repeated and meritless assertions. An article co-authored by Eran Zur, Managing Director of the Intellectual Property Finance Group at Fortress, observes that courts can grant "oversized awards" in the technology sector that "stem from the sheer complexity of interoperable components and systems sold as part of functional units, if not integrated devices." Further, the article notes that "because technology invention tends to be incremental, to the extent an individual patent owner can be awarded damages on the price of the *entire end product* as opposed to their specific patent claim, a litigation incentive arises." That litigation incentive is coupled with what the article notes are "the substantial legal costs to defend a patent infringement suit," creating a situation in which "speculative behavior drives an ever-inflating price ceiling (given the possibility of oversized damages) [and] a price floor becomes set by the extreme expense of litigation defense, marked at just under nuisance value."

23. Further, aggregating a massive portfolio of electronics patents allows Fortress and its PAEs to amass a range of patents that are both substitutes for and complements to one another. When a firm wants to build an electronic device, such as a smartphone, there are many ways to do so. Each alternative requires multiple technologies. However, the alternatives do not require the same combination of technologies. For example, Alternative 1 might require technologies A, B and C, while Alternative 2 might require technologies D, E and F. The technologies used for Alternative 1 (A, B and C) are complements: they are each needed to create the device using Alternative 1. Similarly, the technologies used for Alternative 2 (D, E, and F) are economic complements. The technologies comprising Alternative 1 are also a substitute for the technologies comprising Alternative 2, because the bundle of technologies used in Alternative 1 can be used as a substitute for the bundle of technologies used in Alternative 2.

24. There are many possible permutations of complement and substitute technologies for electronics patents. For instance, Alternative 3 might require technologies A, C and D. In that scenario, the technologies bundled in Alternative 3 are a substitute for the technologies bundled in Alternatives 1 and 2 respectively; A, C, and D are complements in the production of Alternative 3; and technology D is a substitute for technology B. Technologies can thus be both substitutes and complements. If Alternative 4 used technologies A, B, and D, then B and D are complements for Alternative 4, and substituting D for B changes Alternative 1 to Alternative 3.

25. Some of the technologies that can be used to make the device might be patented. But even with the most diligent approach to assessing the patent landscape for a product, it can be challenging to determine whether the technologies included in the device are patented, including because the scope of patent claims may be uncertain prior to litigation, as well as the validity and enforceability of such claims.

26. When this array of patents is held by multiple owners, each patent owner would only assert a patent if the expected value of doing so was net positive. "Weak" patents that have questionable validity, infringement, enforceability, and/or are easily designed around, and

therefore have little or no meaningful value, are either not asserted, or are asserted to demand a license at an amount that is commensurate with the value of the patent's merits.

27. Faced with a patent asserted against its device, the supplier can typically either take a license to the patent or refuse to license and litigate the infringement claim. Regardless of which course is taken, the feasibility of designing around the asserted patent will affect the outcome because the supplier will not pay the patent owner a royalty greater than the cost to design around the patent.

28. When patents are aggregated as Fortress has done, the dynamics for determining whether to assert a patent change and the options available to the target of the assertion also change—both of which have harmful impacts on competition.

29. First, the scope of Fortress's aggregation and its focus on electronics patents ensures that it can effectively exercise hold-up power by eliminating substitutes. Fortress has inevitably acquired substitute patents that, before aggregation, competed with each other. When the patents were held by their original owners, there was competition and a prospective licensee could choose between competing options (or forego those options and design its product in a different way). But now, under the control of Fortress, the prospect of competition disappears and so does the feasibility of redesigning products. Fortress and its PAEs can thus threaten a target with the serial risk that the next best alternative design to an asserted patent is also subject to a patent claim by one of Fortress's PAEs.

30. Second, aggregation elevates the value of asserting weak patents by Fortress-backed PAEs, untethered to the value of the patents themselves. Before aggregation, there would be no incentive to assert such patents because there would be no expectation of a positive return from asserting a weak patent because the patent could be expected to be proven invalid, not infringed, or unenforceable in litigation, or would be easily designed around. But, after aggregation, assertion of weak patents as part of a wave of assertions against a target generates economic value even if many of those assertions are defeated in litigation. By increasing the volume of assertions a target faces, Fortress and its PAEs cause targets to deploy licensing and

litigation resources less efficiently and thereby increase the value of litigation to Fortress and its PAEs. In particular, Fortress and its PAEs increase the likelihood that a weak patent will slip through litigation and be found infringed, valid, and enforceable when it should not be. Further, this strategy creates incentives for targets to settle with Fortress-backed PAEs for amounts that exceed the value (if any) of their patents to put an end to this risk. In this manner, Fortress's patent aggregation enables the use of weak patents to force targets to pay undeserved and inflated royalties.

31. Patent aggregators often claim they are more efficient at enforcing patents than other licensors and that their greater efficiency results in higher payments to inventors and therefore in more innovation. But there is no efficiency associated with patent aggregation in the Fortress assertion model described above. To the contrary, patent licensing becomes less efficient with this type of abusive patent aggregation because the targets waste resources to defend against meritless assertions. Nor do the higher royalties that patent aggregation generates lead to welfare-enhancing additional innovation.

32. Aggregating patents in the way that Fortress has done harms competition. First, by aggregating patents covering technologies that are actual or potential alternatives for one another, Fortress injures competition in the same way as any merger or combination of competitors. Before aggregation, when multiple parties held such patents, those parties competed with one another to license the patents, and licensees benefited from that competition through more favorable licensing terms. Multiple holders of substitute patents were forced to compete with each other to offer better terms to secure licensees. Once the patents were aggregated and controlled by Fortress, however, that competition was eliminated.

33. Second, by creating a massive portfolio of patents aimed at the electronics industry and serially asserting those patents—including patents that would not have been asserted had they not been transferred—Fortress introduces a new cost to suppliers of electronic devices and the components and software for those devices. Introducing that cost dampens incentives for product suppliers to invest in research and development to drive innovation, thereby further undermining

competition and harming end consumers. Exposing the targeted suppliers to another cost benefits their competitors by making the targeted suppliers' products more expensive and/or less innovative. Those competitors might have previously owned some of the patents aggregated by Fortress but were unable to impose such high costs on suppliers using technologies claimed by the patents when the patents were not aggregated into a massive portfolio. Fortress's aggregation thus undermines competition in the sales of electronic devices and components and software for those devices.

34. Third, the higher royalty payments that Fortress and its PAEs generate reward the creation of patents that are not actually inventive or are not actually used.

35. Fourth, Fortress's hold-up power is amplified by the uncertainty it creates through the size of the portfolio it controls and obfuscation regarding the scope of that portfolio. After aggregation, potential licensees lose the ability to decipher the extent to which Fortress controls patents that they may actually have wanted to license ex ante or that would be substitutes to asserted patents. By way of example, Fortress employees are listed as managing members or directors of companies that otherwise have no publicly known ties to Fortress. Mysterious patterns emerge such as entities with names connoting an unspecified relationship with Fortress, by a prefix "CF." District court judges have gone so far as having to compel Fortress's PAEs to reveal the ownership history of the asserted patents and the degree to which Fortress held rights in, and control over, those patents. The effect is that the hold-up power of those patents is imbued on other patents Fortress controls. Thus, rather than fostering pro-competitive patent licensing, Fortress's aggregation scheme reduces potential licensees' ability to obtain licenses to any patents they might be interested in licensing while simultaneously elevating the value of weak patents.

36. By placing its patents across a web of PAEs, Fortress ensures that the patents are held by entities with incentives to wield them aggressively. PAEs like VLSI face no risk to its reputation or ongoing business relationships by adopting abusive licensing or litigation practices. Nor does it face the risk of counter-assertions of its targets' patents.

37. Moreover, PAEs can benefit in litigation from having had no role in prosecuting patents that they obtained from operating companies—such as, described further below, VLSI receiving patents from NXP entities. Transferring the patents from an operating company to a PAE means that the holder of the patent prosecution evidence is no longer a party to the litigation but rather a mere third party, and one sometimes located outside the United States. The result is that it can be difficult for a defendant to obtain evidence and to mount a complete defense to a PAE's assertion—thereby increasing the likelihood of a mistaken verdict of infringement or failure to find unenforceability. Accordingly, a PAE can bring lawsuits to enforce weak patents that a practicing entity would not assert because the PAE has different abilities and incentives to do so. Further, when the PAE risks losing its patents if it cannot generate sufficient revenue to meet its payment obligations to Fortress, the PAE is further incentivized to engage in abusive conduct to extort royalties.

38. Fortress's use of a web of separate PAEs to disperse and enforce the portfolio also ensures that there is no single entity that can offer a comprehensive license to the Fortress portfolio and thereby increases the number of transactions necessary for licensees to attempt to secure patent peace or the number of litigations that Defendants and Fortress's other PAEs can bring. Fortress and its PAEs benefit from increasing the number of transactions because the more transactions, the more opportunities that they have to extract anticompetitive royalties that are not reflective of the value of the patents being licensed. The same goes for litigation—the more cases that Fortress and its PAEs bring, the more opportunities they create for mistaken findings of infringement or coercive settlements.

39. Distributing the patents across a network of PAEs, rather than having Fortress directly own and assert them, is also intended to limit the exposure of Fortress and the broader portfolio to potential blowback from aggressive assertions. For example, to the extent that one of Fortress's PAEs is subject to an award of significant sanctions or attorneys' fees, Fortress could decide either to cut its losses or that it is worth continuing to fund the PAE to pursue further assertions.

40. There is nothing inherently illegal with owning many patents or obtaining those patents through acquisition. But Fortress's patent aggregation scheme is unlike the development of patent portfolios by operating companies that use patents to safeguard their ability to offer their own products and services free from infringement by others. And it is different, too, from a company acquiring patents for the purpose of licensing based on the intrinsic value of those patents. Both of those scenarios have the potential to increase output and lower prices by putting patents to efficient use. But Fortress's aggregation is intended for an anticompetitive purpose—to invest in patents at costs lower than the holdup value of the patents to ensnare as many potential licensees and to allow it and its PAEs to assert as many possible claims of infringement to tax the commercial use of existing technology at rates beyond the actual value (if any) of the aggregated patents. And Fortress's aggregation scheme has had its intended anticompetitive effects, capturing hold-up values that exceed the values at which Fortress or its PAEs acquired the patents, leading to reduced output.

41. Nor are the transfers of patents at issue here typical sales that place patents in the hands of new owners that intend to practice them to develop their businesses or to license them based on their technical merit to generate revenue. Instead, the PAEs' transfers are made with the purpose and effect of stifling competition by allowing Fortress and those using Fortress-backed patents to extort supracompetitive royalties unrelated to the value (if any) of the Fortress-backed patents.

42. Transferring patents from operating companies to Fortress and its PAEs reduces or eliminates competitive constraints that restricted the ability of the former owners to impose onerous licensing terms when they asserted the patents. Product companies generally sell a range of products in competition with other firms, and their ability to sell any of them is constrained by the competition faced by all the products. A product company knows that, if it acts too aggressively or rapaciously toward the customers of some of its products, those customers and others will be more likely to buy other products offered by the company from other firms that have not been so aggressive. In that way, competition in the sale of one product constrains the prices

of other products, and the product companies selling such products will have a strong competitive incentive to maintain a positive industry reputation and good customer relationships over the full range of their products. For example, infringement actions by component or software suppliers against customers or potential customers will limit prospects for future sales. Suits by electronic device suppliers against suppliers or potential suppliers of components or software could jeopardize their ability to source essential components or software for their devices. Reputational and relational harm from filing repeated, baseless infringement suits will limit product companies' ability to participate effectively in collaborative industry initiatives, such as standard setting or other industry endeavors. Because transfers of patents from product companies to Fortress and its PAEs lessen or eliminate these and other constraints and place the patents with a party with different incentives, those transfers result in inflated royalties or other less favorable licensing terms. Transfers to Fortress and its PAEs place patents in the hands of entities that face no such competitive constraints and that are thus free to maximize their profits through aggressive litigation campaigns. Moreover, Fortress's use of obfuscation and a web of PAEs heighten the anticompetitive effects of such transfers. That Fortress and its PAEs have repeatedly entered patent transfer agreements with no efficiency rationale and those agreements have resulted in inflated royalties is direct proof of the anticompetitive effects of those transfers.

43. In addition, Fortress and its PAEs face no risk of countersuit on their own products because they supply no products. Fortress and its PAEs are therefore not constrained by the risk that their own product profits will be threatened by counter assertions by product companies.

A. Fortress and VLSI

44. Fortress strategized for six months with NXP about how they would assert NXP's patents before undertaking the creation of VLSI and the patent transfers. Among the options that Fortress and NXP considered were a "Financing Option" in which NXP would retain ownership of all patents and act as the named plaintiff in enforcement actions funded by Fortress. They also considered a "Privateering Option" in which the patents would be transferred to a new entity to carry out enforcement. A third option was the "Corporate Carve Out" in which Fortress would

purchase a division of NXP along with some of its patents. Ultimately, they settled on the Privateering Option, to be accomplished through the creation of VLSI to obtain patents from NXP and then assert them in litigation. The terms of the arrangement were spelled out in a Patent Purchase and Cooperation Agreement.

45. Fortress formed VLSI on June 27, 2016. VLSI's formation document is signed by Marc K. Furstein, Fortress's Managing Director, President of the Credit Funds & Chief Operating Officer of Credit Funds. Two days after VLSI's formation, Justin Klein (then Chief Financial Officer of Fortress's credit arm) formed CF VLSI Holdings LLC ("VLSI Holdings"). VLSI is a subsidiary of VLSI Holdings. That VLSI ultimately operates at the behest of Fortress is further evidenced by the signature of Eran Zur, Managing Director of Fortress's Intellectual Property Group and an "authorized signatory" for VLSI on several documents assigning NXP's patents to VLSI.

46. VLSI holds nearly 200 patents that were transferred to it from NXP, starting with an August 16, 2016 assignment. Mr. Zur signed a certain number of the patent assignment agreements on behalf of VLSI. Further, VLSI maintains that VLSI and NXP are "working together" to monetize the former NXP patents.[6]

47. Neither VLSI nor VLSI Holdings manufactures or sells any products. VLSI appears to have a single employee—its Chief Executive Officer, Michael Stolarski. Mr. Stolarski is an attorney who worked at several law firms before becoming the CEO of VLSI.

B. Fortress and DSS

48. On February 13, 2014, Fortress Credit entered into an Investment Agreement with DSS and other undisclosed investors ("DSS-Fortress Investment Agreement"). Under the DSS-Fortress Investment Agreement, Fortress and the investors granted a loan to DSS in exchange for it placing a lien in favor of the investors on ten semiconductor patents and assigned to the investors

[6] *VLSI Tech. LLC v. Intel Corp.*, No. 6:19-cv-00254 (W.D. Tex.), Dkt. 41 at 1; *VLSI Tech. LLC v. Intel Corp.*, No. 6:19-cv-00255 (W.D. Tex.), Dkt. 30 at 1; *VLSI Tech. LLC v. Intel Corp.*, No. 6:19-cv-00256 (W.D. Tex.), Dkt. 39 at 1.

certain funds recoverable from successful patent litigation involving these patents, including settlement payments, license fees and royalties on the patents.

49. On December 2, 2016, following DSS's default on its payment obligations under the DSS-Fortress Investment Agreement, the parties amended that agreement—including to extend the period for DSS to meet its payment obligations, to add the requirement that DSS repay certain expenses, and to require that DSS share proceeds from monetization efforts associated with certain additional patents. DSS also granted Fortress and the investors a security interest in certain of DSS's unencumbered semiconductor patents to further collateralize the amounts owed under the DSS-Fortress Investment Agreement. In February 2018, DSS failed to meet its payment obligations under the amended agreement.

50. On June 26, 2018, DSS entered into an agreement with Fortress Credit, pursuant to which DSS transferred to Fortress Credit all the remaining economic rights to certain of DSS's semiconductor related patents.

C. Fortress and the Uniloc Entities

51. On December 30, 2014, Fortress Credit entered into a Revenue Sharing and Note and Warrant Purchase Agreement ("Uniloc-Fortress Revenue Sharing Agreement") with Uniloc Luxembourg, S.à.r.l ("Uniloc Luxembourg") and Uniloc USA, Inc. ("Uniloc USA"). Under the Uniloc-Fortress Revenue Sharing Agreement, Fortress provided a loan to Uniloc USA in exchange for a share of future licensing revenue from its patent portfolio. If Uniloc USA failed to timely make a required payment to Fortress or any other "Event of Default" occurred, Fortress had the right to accelerate the full payments owed by Uniloc USA.

52. Fortress also entered into a Patent License Agreement with Uniloc Luxembourg and Uniloc USA on December 30, 2014. The License granted Fortress "a non-exclusive, transferrable, sub-licensable, divisible, irrevocable, fully paid-up, royalty-free, and worldwide license to the Licensed Patents, including, but not limited to, the rights to make, have made, market, use, sell, offer for sale, import, export and distribute the inventions disclosed in the Licensed Patents and otherwise exploit the Licensed Patents in any lawful manner in ***Licensee's sole and***

absolute discretion solely for the benefit of the Secured Parties ('Patent License'), provided that Licensee shall only use the Patent License following an Event of Default."

53. Fortress later took steps to control even more directly the assertion of Uniloc patents. On February 23, 2018, Fortress formed Uniloc 2017 in order for Fortress to direct and control the assertion Uniloc patents. James K. Noble, who was previously Fortress's Secretary, signed the certificate of formation for Uniloc 2017.

54. On May 3, 2018, Uniloc Luxembourg S.A. assigned over 600 patents to Uniloc 2017 pursuant to a March 28, 2019 Asset Purchase Agreement. Constantine Dakolias signed the agreement as President of Uniloc 2017. Mr. Dakolias is also Co-Chief Investment Officer, Credit Funds at Fortress.

55. As one court observed about the various transfers of patents and agreements between Uniloc entities: "The Court suspects that Uniloc's manipulations in allocating rights to the patents-in-suit to various Uniloc (possibly) shell entities is perhaps designed to insulate Uniloc Luxembourg from any award of sanctions in the event Uniloc loses this litigation (or some substantial part thereof)."

56. The patents that Uniloc Luxembourg assigned to Uniloc 2017 included patents claimed to be standard-essential patents ("SEPs") for cellular standards that originated with Koninklijke Philips Electronics N.V. ("Philips"). Philips had provided a commitment to the European Telecommunications Standards Institute ("ETSI") to license any of its essential patents on fair, reasonable, and non-discriminatory ("FRAND") terms and conditions. The patents were subsequently transferred to the PAE Pendragon Wireless in 2012 and then to Uniloc Luxembourg in 2018 before ultimately being transferred to Uniloc 2017 in 2018. Standards, such as LTE, are created and publicly distributed by standard setting organizations ("SSOs"). Industry standards provide potential benefits by allowing devices made by different companies to communicate with each other because these devices support the same standard. But standards also present risks of harm to competition and consumers when patent holders claim to have patents essential to the standards—*i.e.*, the standard cannot be practiced without using the patent—and exploit those

patents to demand excessive royalties or hold up companies that use the standard. Before a standard is set, the SSO can choose different ways of implementing particular functionality within the standard. But once the standard is set and technology to perform a particular functionality is incorporated in the standard, users of the standard become "locked in" to using that technology through their investment in products and services that support the standard. This "lock-in" effect creates a risk that patent holders claiming to have essential patents will attempt to exploit their patents by demanding excessive royalties or seeking to enjoin the use of their patents. In particular, SEP holders may seek royalties that do not reflect the incremental value of their patents (which may cover only a fraction of the matter addressed in a given standard) but instead are based on the user's investments in supporting the standard.

57. The risk of exploitative SEP licensing conduct is exacerbated by the fact that SSOs typically make no evaluation of whether a claimed-essential patent is actually essential.

58. In response to this risk of exploitative behavior, SSOs have adopted licensing commitments that govern patents claimed to be essential to a standard. Many SSOs impose a requirement that patent holders claiming to have essential patents timely disclose those patents to the SSO and commit to license them on FRAND terms and conditions.

59. FRAND royalties for SEPs should reflect the ex ante value of the technology covered by the SEP before standardization, when alternative means of performing the functions purportedly covered by the patented technology were available. That is, FRAND royalties should be apportioned so that they do not reflect any value attributable to adoption in the standard of the feature covered by the SEP or unpatented features within the standard. Transferring SEPs from an operating company that supplies its own products and participates in SSOs to a PAE allows the PAE to escape the protections for licensees to which licensors agree through making a FRAND commitment. When an operating company demands royalties for patents it has declared essential to industry standards, it faces bounds on the reach of its demands because it remains an operating company and an SSO participant. As an operating company that sells its own products or services, it remains subject to assertion of patents against it by potential licensees. Thus, for example, an

operating company would face constraints in demanding non-FRAND royalties or otherwise failing to adhere to a FRAND commitment because it could be subject to reciprocal demands or conduct from other SEP holders.

60. And, as SSO participants, operating companies have reputational interests at stake that may be injured though directly breaching their FRAND commitments. Such conduct will make SSOs and their members less likely to standardize the operating company's technology in future standards. By transferring SEPs to PAEs, operating companies avoid these constraints and enlist PAEs that are not subject to the same constraints to exploit the monopoly power associated with their claimed SEPs.

61. Patent transfer schemes like Uniloc 2017's frustrate the purposes of the FRAND commitment in another way. By transferring portions of the SEP portfolios of operating companies to PAEs for the purpose and with the effect of driving up transaction costs and evading FRAND commitments, the scheme not only introduces inefficiencies but also makes it impossible for device suppliers to license all of an operating company's declared SEPs in a single license.

D. Fortress and INVT

62. Inventergy Global, Inc. ("Inventergy") is a patent licensing company based in Cupertino, California.

63. In May 2013, Inventergy acquired over 180 patents from Huawei Technologies Co. claimed to relate to IP Multimedia Subsystem (IMS) and Voice over IP (VoIP). Inventergy acquired the Huawei patents subject to certain ongoing payment obligations to Huawei, including to make a one-time payment when a certain revenue threshold was obtained by licensing the patents and also to share a certain percentage of the quarterly net revenue earned by licensing the patents.

64. In October 2013, Inventergy acquired nearly 500 patents from Panasonic Corporation ("Panasonic") claimed to relate to 3G and 4G mobile telecommunications. Inventergy acquired the Panasonic patents subject to an obligation to share a certain percentage of the quarterly net revenue earned on the patents with Panasonic, including to make certain guaranteed

payments. Inventergy agreed that if it failed to make the guaranteed payments by a specified date, Panasonic could charge it late fees and Panasonic may have the right to collect interest and in certain circumstances to terminate the agreement under which the patents were transferred to Inventergy. As described further below, a number of the Panasonic patents are claimed to be essential to cellular standards and subject to commitments to license them on FRAND terms and conditions.

65. In May 2014, Inventergy acquired approximately 80 patents claimed to be related to IMS and VoIP from Nokia Corporation. As consideration, Inventergy agreed to make cash payments to Nokia on or before October 1, 2014, June 1, 2015, and June 1, 2016.

66. On October 1, 2014, affiliates of Fortress, DBD Credit Funding, LLC and CF DB EZ LLC, entered a Revenue Sharing and Note Purchase Agreement with Inventergy. Through the arrangement, Fortress provided $11 million in financing to Inventergy, consisting of $10 million in debt financing and $1 million in sale of stock. As Inventergy informed its shareholders, the Fortress funds were "applied towards the repayment of existing debt obligations and improvement of our capital structure."

67. In exchange for Fortress's investment, Inventergy agreed to apply revenues generated from patent monetization to repayment of the investment and, further, to provide Fortress with an additional portion of Inventergy's licensing revenues. If Inventergy failed to make the required payments, it could default under the agreement. As Inventergy subsequently warned its shareholders: "In the case of a default, Fortress could accelerate our obligations under the Fortress Agreement and exercise their right to foreclose on their security interests, which could force us to cease operations."

68. Fortress's backing emboldened Inventergy to aggressively pursue licensing targets. As Sonus Networks alleged in a case against Inventergy, Inventergy's CEO Joe Byers told Sonus in January 2015 that "Fortress[,] does not settle" in litigation and that if Sonus Networks declined to take a license, it would face "an IP bloodbath."

69. On December 22, 2016, Inventergy entered a Restructuring Agreement to amend the Revenue Sharing and Note Purchase Agreement. As Inventergy explained the consequences of the Restructuring Agreement, "Fortress will have the sole discretion to make any and all decisions relating to [Inventergy's] patents and patent monetization activities (excluding future acquired patents related to Inventergy Innovations, LLC, a subsidiary of Parent, and related monetization activities) (such patents that are subject to the Restructuring Agreement, the 'Patents'), including the right to license, sell or sue unauthorized users of the Patents."

70. Further, the Restructuring Agreement modified the revenue sharing arrangement to provide that after making certain required payments, including to Nokia, Huawei, and Panasonic, Fortress would receive proceeds "until Fortress has received (x) reimbursement of any amounts advanced by Fortress pursuant to the Restructuring Agreement plus 20% annual interest on such advances plus (y) $30.5 million less any amounts paid to Fortress for the Note Obligations under the Revenue Sharing and Note Purchase Agreement after December 22, 2016" and "after all of the foregoing payment obligations are satisfied, 70% to Fortress and 30% to the Company." Inventergy announced the Restructuring Agreement as an arrangement "under which Fortress may fund, at its discretion, an enhanced enforcement program to further monetize Inventergy's 740 telecommunications patent assets that the Company previously acquired from Panasonic, Nokia and Huawei."

71. As a result of the Restructuring Agreement, Inventergy and a Fortress affiliate, CF INVT Holdings LLC, on April 27, 2017 formed INVT SPE LLC ("INVT"). Mr. Dakolias, Co-Chief Investment Officer, Credit Funds at Fortress, is the President of CF INVT Holdings LLC, and signed INVT's Limited Liability Company agreement on behalf of INVT and CF INVT Holdings LLC. Michele Moreland, a Director at Fortress, serves as the Licensing Officer of INVT SPE LLC.

E. Fortress and IXI

72. On April 2, 2014, IXI IP, LLC ("IXI IP") was formed in New York. IXI IP is a patent assertion entity that received patents from IXI Mobile (R&D) Ltd. ("IXI R&D") on June 5,

2014. The same day IXI IP received the transfer, it licensed the patents back to IXI R&D. (IXI IP and IXI R&D are referred to collectively as "IXI.")

73. On June 5, 2014, IXI IP assigned a security interest in each of the patents it received from IXI R&D to Fortress Credit. Three months later, on September 11, 2014, Fortress Credit Co. DBD LLC assigned its interest to FCO V CLO Transferor LLC, another Fortress subsidiary.

F. Fortress and Seven Networks

74. Seven Networks, LLC ("Seven Networks") was originally incorporated in Delaware in 2000 as a mobile messaging company under the name Seven Networks Inc. Seven Networks Inc. subsequently registered to conduct business in Texas in 2005.

75. Fortress was formerly an investor in Seven Networks Inc. Fortress gained control of Seven Networks in 2015. In July 2015, Fortress converted Seven Networks Inc. to a limited liability company. Seven Network Inc.'s patents passed to Seven Networks at the time of the July 2015 corporate conversion.

76. Seven Network's parent is CF SVN LLC, a Delaware company formed on July 2, 2015, and a Fortress subsidiary. Mr. Dakolias, the Co-Chief Investment Officer, Credit Funds at Fortress, signed CF SVN LLC's certificate of formation.

G. Fortress and KIP CR P1

77. Crossroads Systems, Inc. ("Crossroads") is a publicly-traded company that used to be in the business of licensing intellectual property.

78. In July 2013, Crossroads received a loan up to $10 million from Fortress Credit that was later assigned to another Fortress affiliate, CF DB EZ LLC. As part of the loan agreement, Crossroads assigned 109 granted or pending patents to a partnership, KIP CR P1, formed by Crossroads and Fortress. The transferred patents were all of Crossroads' patents with the exception of one patent family (for U.S. Patent No. 5,941,972). As with Fortress's other loan deals, Crossroads risked losing its interests in the transferred patents in an "Event of Default," including missing a payment to Fortress.

79. Crossroads was ultimately able to repay the loan to Fortress in October 2015 only when it made a deal to share revenue from the monetization of the '972 patent family with another company. But this arrangement was not enough for Crossroads to stay solvent. In August 2017, Crossroads announced that it filed for Chapter 11 bankruptcy in order to restructure its business and attract new investment.

80. In the end, Fortress wound up acquiring all of Crossroads' patents. As part of its restructuring, Crossroads announced in November 2017 that it had sold its patent portfolio to KIP CR P1 to take over patent monetization efforts. Fortress and Crossroads agreed to "share the proceeds from such efforts equally (after deducting expenses and a $1.5 Million monetization hurdle)."

II. LICENSING AND LITIGATION CAMPAIGNS

81. Consistent with Fortress's intent, the PAEs it has created or in which it has invested, including VLSI and DSS, have engaged in prolific patent assertions and litigation campaigns. The practice of serial litigations that Fortress's PAEs have pursued demonstrate that they have used litigation to impose a crushing burden on their targets rather than with regard to the merits of their patents or to vindicate their patent rights.

A. VLSI

82. On October 2, 2017, VLSI filed a suit against Intel in the Northern District of California, asserting eight patents acquired from NXP against virtually every one of Intel's microprocessors ever sold since 2011 (the "California Action").[7] Despite VLSI's aggressive litigation strategy in that case, it suffered numerous setbacks, including losing various discovery- and damages-related disputes. After the PTAB instituted *inter partes* review proceedings to evaluate the patentability of the claims in six of the asserted patents, a court in the Northern District of California stayed the case.

[7] *VLSI Tech. LLC v. Intel Corp.*, No. 5:17-cv-05671 (N.D. Cal.).

83. Having struck out in California, VLSI next set its sights on Delaware. On June 28, 2018, VLSI filed suit in U.S. District Court for the District of Delaware asserting five different patents against many of the same products accused in the California Action (the "Delaware I Action").[8] In the past year, the Delaware I Action has imposed substantial burdens on Intel: the parties have engaged in extensive discovery, with Intel having produced over a million pages of documents related to the accused products and 2.5 TB of source code, and thousands of pages of noninfringement and invalidity contentions.

84. On March 1, 2019—***the same day*** that VLSI agreed to stay the California Action—VLSI filed yet another suit in the District of Delaware, asserting six new patents against many of the same products at issue in the previous cases (the "Delaware II Action").[9]

85. Evidently concerned that the Delaware I Action and the Delaware II Action might be consolidated, VLSI again abandoned its litigation in hopes of obtaining a favorable outcome elsewhere. On April 11, 2019, just hours after Intel filed its reply brief in support of its motion to consolidate—and without any warning—VLSI voluntarily dismissed the Delaware II Action and, ***that same day***, filed three suits in the Western District of Texas (the "Texas Actions"),[10] asserting the same six patents at issue in the Delaware II Action, as well as two additional patents.

86. The patents at issue in these suits constitute only a fraction of the original patent portfolio owned by NXP. Yet VLSI claims up to $7.1 billion in connection with eight patents in the California Action and multiple billions of dollars in damages in the Delaware I Action. These inflated numbers are a product of transferring the patents away from NXP and employing them in Fortress's unlawful aggregation scheme, including the fact that VLSI (unlike NXP) does not invent, produce, or sell any products.

87. VLSI, at Fortress's direction, can and does take advantage of the fact that—unlike NXP—it produces nothing at all and therefore has no desire or need for dispute resolution.

[8] *VLSI Tech. LLC v. Intel Corp.*, No. 1:18-cv-00966 (D. Del.).

[9] *VLSI Tech. LLC v. Intel Corp.*, No. 1:19-cv-00426 (D. Del.).

[10] *VLSI Tech. LLC v. Intel Corp.*, No. 6:19-cv-00254 (W.D. Tex.); *VLSI Tech. LLC v. Intel Corp.*, No. 6:19-cv-00255 (W.D. Tex.); *VLSI Tech. LLC v. Intel Corp.*, No. 6:19-cv-00256 (W.D. Tex.).

Because VLSI's litigation costs and risks are trivial in comparison with those of the product companies it sues, it can afford to bring these types of serial suits based on weak or low-value patents under the theory that even a modest settlement for supra-competitive royalties will be profitable.

88. As a non-practicing entity, VLSI cannot credibly seek injunctions in U.S. litigation under the Supreme Court's decision in *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388 (2006). Faced with this problem, VLSI is seeking to enjoin Intel in multiple litigations in China, as leverage to coerce Intel to accept unreasonable licensing terms—including for its U.S. patents—or face the risk of having its business shut down in a major market.

B. DSS

89. Backed by Fortress funds, DSS sued Intel on February 16, 2015, in U.S. District Court for the Eastern District of Texas, asserting two patents. DSS also named Dell Inc., GameStop Corp., Conn's Inc., Conn Appliances, Inc., NEC Corporation of America, Wal-Mart Stores Inc., Wal-Mart Stores Texas, LLC, and AT&T, Inc. as defendants in the suit.

90. Intel then petitioned the PTAB to assess in *inter partes* review proceedings whether the claims of the asserted patents were patentable. The PTAB instituted the proceedings, and Intel and DSS agreed to stay the litigation pending the outcome of those *inter partes* reviews.

91. In final written decisions issued on June 1, 2017, the PTAB held that all challenged claims (which included the claims DSS had asserted against Intel) were unpatentable. DSS and Intel jointly requested that the litigation stay continue pending appeal.

92. In January 2019, Intel and DSS entered into a settlement, and the district court litigation was dismissed.

C. The Uniloc Entities

93. The Uniloc entities have been prolific in filing patent litigation cases. A favorite target has been Apple, which to date Uniloc entities have sued 25 times in the United States:

- *Uniloc USA, Inc. et al v. Apple Inc.*, 2-16-cv-00638 (E.D. Tex.)

- *Uniloc USA, Inc. et al. v. Apple Inc.*, 2-17-cv-00258 (E.D. Tex.), subsequently transferred as 3:18-CV-00357 (N.D. Cal.) (LHK)
- *Uniloc USA, Inc. et al. v. Apple Inc.*, 2-17-cv-00454 (E.D. Tex.), subsequently transferred as 3:18-CV-00358 (N.D. Cal.) (WHA) and 18-2094 (Fed. Cir.)
- *Uniloc USA, Inc. et al. v. Apple Inc.*, 2-17-cv-00455 (E.D. Tex.), subsequently transferred as 3:18-CV-00359 (N.D. Cal.) (WHA)
- *Uniloc USA, Inc. et al. v. Apple Inc.*, 2-17-cv-00457 (E.D. Tex.), subsequently transferred as 3:18-CV-00360 (N.D. Cal.) (WHA)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 2-17-cv-00469 (E.D. Tex.), subsequently transferred as 4:18-CV-00361 (N.D. Cal.) (PJH)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 2-17-cv-00470 (E.D. Tex.), subsequently transferred as 4:18-CV-00362 (N.D. Cal.) (PJH)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 2-17-cv-00522 (E.D. Tex.), subsequently transferred as 4:18-CV-00364 (N.D. Cal.) (PJH)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 2-17-cv-00534 (E.D. Tex.), subsequently transferred as 3:18-CV-00363 (N.D. Cal.) (WHA)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 2-17-cv-00535 (E.D. Tex.), subsequently transferred as 3:18-CV-00572 (N.D. Cal.) (WHA)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 2-17-cv-00571 (E.D. Tex.), subsequently transferred as 3:18-cv-00365 (N.D. Cal.) (WHA)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 2-17-cv-00708 (E.D. Tex.)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 1-18-cv-00158 (W.D. Tex.), subsequently transferred as 4:19-CV-01691 (N.D. Cal.) (JST)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 1-18-cv-00159 (W.D. Tex.), subsequently transferred as 5:19-CV-01692 (N.D. Cal.) (EJD)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 1-18-cv-00161 (W.D. Tex.), subsequently transferred as 4:19-CV-01693 (N.D. Cal.) (JST)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 1-18-cv-00163 (W.D. Tex.), subsequently transferred as 4:19-CV-01694 (N.D. Cal.) (JST)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 1-18-cv-00164 (W.D. Tex.), subsequently transferred as 5:19-CV-1695 (N.D. Cal.) (LHK)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 1-18-cv-00166 (W.D. Tex.), subsequently transferred as 4:19-CV-01696 (N.D. Cal.) (YGR)
- *Uniloc USA, Inc. et al v. Apple Inc.*, 1-18-cv-00293 (W.D. Tex.), subsequently transferred as 3:19-CV-01697 (N.D. Cal.) (VC)

- *Uniloc USA, Inc. et al v. Apple Inc.*, 1-18-cv-00296 (W.D. Tex.), subsequently dismissed without prejudice
- *Uniloc 2017 LLC et al v. Apple Inc.*, 1-18-cv-00838 (W.D. Tex.), subsequently refiled as 1:18-cv-00990, and subsequently transferred as 3:19-CV-01904 (N.D. Cal.) (WHO)
- *Uniloc 2017 LLC et al v. Apple Inc.*, 1-18-cv-00851 (W.D. Tex.), subsequently refiled as -18-cv-00989 (W.D. Tex.), and subsequently transferred as 3:19-CV-01905 (N.D. Cal.) (JD)
- *Uniloc 2017 LLC et al v. Apple Inc.*, 1-18-cv-00890 (W.D. Tex.), subsequently refiled as 1-18-cv-00992 (W.D. Tex.), and subsequently transferred as 4:19-CV-01949 (N.D. Cal.) (JSW)
- *Uniloc 2017 LLC et al v. Apple Inc.*, 1-18-cv-00907 (W.D. Tex.), subsequently refiled as 1-18-cv-00991 (W.D. Tex.), and subsequently transferred as 5:19-CV-01929 (N.D. Cal.) (EJD)
- *Uniloc 2017 LLC v. Apple Inc.*, 6-19-cv-00532 (W.D. Tex.)

94. The Uniloc entities have often filed their cases in waves, with the apparent aim of heightening the threat to increase leverage and extract a settlement. For example, in June 2016, Uniloc USA and Uniloc Luxembourg sued Apple on four patents; between April to October 2017, Uniloc USA and Uniloc Luxembourg sued Apple on another 16 patents; in February 2018, Uniloc USA and Uniloc Luxembourg sued Apple on another seven patents; in April 2018, Uniloc USA and Uniloc Luxembourg sued Apple on another two patents; and in October 2018, Uniloc 2017 and Uniloc Licensing USA sued Apple on another four patents.

95. The Uniloc entities have also made Google a frequent target. On October 1, 2018, Uniloc 2017 and Uniloc Licensing USA filed four separate complaints against Google. Between October 31, 2018 and November 1, 2018, Uniloc 2017, Uniloc Licensing, and Uniloc USA filed another 10 separate complaints against Google. Later in November, the Uniloc entities dismissed those 14 complaints without prejudice and Uniloc 2017 and Uniloc USA filed 14 new complaints against Google on the same 14 patents asserted in the prior complaints. In December 2018, Uniloc 2017 filed an additional seven complaints against Google, one of which it later dismissed. That amounts to a total of 35 lawsuits against Google by Uniloc entities over three months.

96. Since its creation in February 2017, Uniloc 2017 has been a plaintiff in more than 130 patent infringement suits. Beyond Apple and Google, the Uniloc entities' targets have included the following companies that supply high-tech consumer and enterprise electronic devices or components or software for such devices:

- Barnes & Noble, Inc.
- BlackBerry Corporation
- Cardo Systems, Inc.
- Cisco Systems, Inc.
- Hike Ltd.
- Huawei Devices USA
- LG Electronics USA, Inc.
- Samsung Electronics America, Inc.
- Terrano, LLC
- ZTE (USA), Inc.
- Netflix
- Hulu

97. By targeting a broad number of suppliers of a particular electronics product—e.g., smartphones—the Uniloc entities (as well as the Fortress's other PAEs) increase the chances that the costs imposed on those suppliers will be internalized and passed along to consumers.

98. The three years so far of Uniloc entities suing Apple has demonstrated Fortress's scheme to assert endless, meritless litigation. The four patents in Uniloc's first case against Apple have all been found unpatentable by the USPTO. Uniloc's second case against Apple revealed how little pre-suit diligence is taken before suing, when after suing, Uniloc voluntarily dismissed one the three asserted patents and admitted that the "Patent is probably commercially worthless."[11] It is no surprise that one judge described Uniloc's infringement theories in a case as "bogus and

[11] Patent Owner Preliminary Response to Petition, *Unified Patents Inc. v. Uniloc Luxembourg, S.A.*, IPR2017-01850 (PTAB Nov. 30, 2017).

conclusory."[12] The examples below demonstrate the flaws in Uniloc's patents, including patents that have been found invalid in multiple ways by multiple adjudicators.

99. In one example of Uniloc asserting invalid patents, Uniloc sued eight companies on a patent that two courts have found invalid and on which the PTAB has initiated an *inter partes* review. Uniloc entities asserted U.S. Patent No. 6,993,049 (the "'049 patent"), titled "Communication System," in the following cases:

- *Uniloc USA, Inc. v. Apple Inc.*, No. 1-18-cv-00164 (W.D. Tex.), subsequently transferred as 5:19-CV-1695 (N.D. Cal.) (LHK)
- *Uniloc USA, Inc. v. Samsung Electronics America, Inc.*, No. 2-18-cv-00040 (E.D. Tex.)
- *Uniloc USA, Inc. v. Logitech, Inc.*, No. 5-18-cv-01304 (N.D. Cal.)
- *Uniloc USA, Inc. v. LG Electronics USA, Inc.*, No. 3:18-cv-00559 (N.D. Tex.), subsequently transferred as 3:18-cv-06738 (N.D. Cal.)
- *Uniloc USA, Inc. v. Huawei Device USA, Inc.*, No. 2:18-cv-00074 (E.D. Tex.)
- *Uniloc USA, Inc. v. ZTE (USA), Inc.*, No. 2:18-cv-00307 (E.D. Tex.), subsequently transferred as 3:18-cv-02839 (N.D. Cal.)
- *Uniloc USA, Inc. v. Blackberry Corp.*, No. 3:18-cv-01885 (E.D. Tex.)
- *Uniloc USA, Inc. v. Microsoft Corp.*, No. 8:18-cv-01279 (C.D. Cal.)

100. The '049 patent purports to cover an improvement of Bluetooth technology. On April 19, 2019, a court in the Northern District of California held the '049 patent invalid as failing to recite patent-eligible subject matter under 35 U.S.C. § 101. Specifically, the court concluded that the '049 patent is "directed to the abstract idea of additional polling in a wireless communication system" and that "there is no inventive concept sufficient to save the claim." Amended Order Granting Motion to Dismiss at 17, 32, *Uniloc USA Inc. v. LG Elecs. USA Inc.*, No. 5:18-cv-06738-LHK (N.D. Cal. Apr. 9, 2019).

101. On April 5, 2019, a court in the Eastern District of Texas held that there were multiple bases to conclude that asserted claims 1 and 8 of the '049 patent are indefinite. Claim

[12] Transcript of Proceedings, *Uniloc USA, Inc. v. Apple Inc.*, No. 18-cv-359 (WHA) (N.D. Cal. June 28, 2018).

Construction Memorandum and Order, *Uniloc USA, Inc. v. Samsung Elecs. America, Inc.*, Nos. 2:18-cv-00040-JRG-RSP, 2:18-cv-00074-JRG-RSP (E.D. Tex. Apr. 5, 2019). On July 2, 2019, Uniloc jointly filed with the Huawei defendants in that case a Joint Motion to Dismiss with Prejudice, in which dismissal of Uniloc's claims was sought to be "conditioned on the Court's vacating the Claim Construction Memorandum Opinion and Order . . . entered April 5, 2019." By seeking to dismiss without prejudice, Uniloc attempted to avoid having final judgment entered finding the '049 patent invalid, allowing Uniloc to continue to pursue baseless claims using that patent. The court denied Uniloc's ploy, ordering on July 9, 2019 that the parties were to file a "new motion to dismiss that is not conditioned upon the Court vacating the Claim Construction Memorandum Opinion and Order."

102. Finally, on July 22, 2019, the PTAB instituted an *inter partes* review of the '049 patent, concluding that Apple's "Petition establishes a reasonable likelihood that [Apple] would prevail in showing claims 11 and 12 [of the '049 patent] are unpatentable" as obvious in light of multiple prior art references. *Apple Inc. v. Uniloc 2017 LLC*, Case IPR2019-00251 (PTAB July 22, 2019).

103. As the number of times that Uniloc's cases against Apple have been transferred out of Texas—shown in the list above in paragraph 93—makes clear, the Uniloc entities have time and again sought to impose the additional burden on parties of litigating in an inconvenient forum. Uniloc has gone so far as to misrepresent facts about its connections to Texas and lack of connections to California in an effort to fend off Apple's requests to have cases transferred to this District. In *Uniloc USA, Inc. v. Apple Inc.*, No. 2:17-cv-00258-JRG (E.D. Tex.), the court detailed a series of deceptive statements made by Uniloc, concluding that such "contradictory representations [are] troubling, particularly because they are not isolated exceptions." For example, Uniloc made repeated misrepresentations about its lack of connection to California:

> Mr. Burdick, Uniloc's only party witness residing within the Eastern District of Texas, does not spend the majority of his time in the Plano office. (Dkt. No. 60-2, Ex. B at 2.) Mr. Burdick spends equally as much time in Plano, as he does in Boise, Idaho and in southern California. (*Id.*) In addition, Mr. Etchegoyen [the CEO of Uniloc Luxembourg] spends about twenty percent of his time in

> either Newport Beach or Irvine, California and owns a residence in Newport Beach, which he uses when he "is doing business in Orange County." (*Id.*; Dkt. No. 60-1, Ex. A at 160:15–16.) Both Mr. Burdick and Mr. Etchegoyen have held around one hundred "top-level strategy meetings" in southern California, for Uniloc business purposes. (Dkt. No. 60-1, Ex. A at 54:2–55:11.) Mr. Etchegoyen separately travels to southern California every month to meet with Mr. Turner, Uniloc Luxembourg S.A.'s CFO. (Dkt. No. 60-1, Ex. A at 47:18–25.) All of these facts fly in the face of Uniloc's prior representations: that Uniloc had only one full-time employee, Tanya Kiatkulpiboone, working at its office in Irvine, California as of April 2017 (Dkt. No. 30-7, Burdick Decl. ¶ 10); that Mr. Etchegoyen has lived in Hawaii since well before the filing date of the Complaint and does not maintain a residence in California (Dkt. No. 30 at 12); and that Mr. Burdick does not work in California (Dkt. No. 43 at 2 n.3 "Apple also repeats its erroneous assertion that Uniloc's IP counsel lives and works in California."); and that Apple "attempts to exaggerate Uniloc's ties to California" (Dkt. No. 30 at 1–2).

Memorandum Order and Opinion at 16-17, *Uniloc USA, Inc. v. Apple Inc.*, No. 2:17-cv-00258-JRG (E.D. Tex. Dec. 22, 2017).

D. INVT

104. INVT sued Apple and HTC in May 2017 in the District of New Jersey. INVT has asserted eight SEPs that it claims are essential to cellular standards and are subject to FRAND commitments. On August 29, 2017, INVT filed suit against ZTE Corporation ("ZTE"), in which it has asserted the same eight patents.

105. Apparently dissatisfied with the pressure it could exert through district court litigation alone, on September 14, 2018, INVT asserted five of the patents from New Jersey against Apple, HTC, and ZTE in the International Trade Commission seeking an order excluding the accused products from importation into the United States.

E. The IXI Entities

106. IXI R&D and IXI IP brought suit, in the Southern District of New York, against Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. ("Samsung") and BlackBerry Limited and BlackBerry Corporation ("BlackBerry") on June 17, 2014 and June 18,

2014 respectively, on the same set of four patents. IXI R&D and IXI IP, voluntarily dismissed without prejudice, their complaint against BlackBerry on February 5, 2019.

107. IXI R&D and IXI IP also sued Apple on the same patents on October 2, 2014 in the Southern District of New York. On May 11, 2015, IXI R&D, IXI IP, and Apple jointly stipulated to dismiss with prejudice one of the patent claims at issue in the case.

108. On December 21, 2016, the PTAB found unpatentable every asserted claim of one of the remaining patents-in-suit in *inter partes* review proceedings. *See* IPR2015-01444, Paper 27 (PTAB Dec. 21, 2016). While the PTAB's decision was on appeal, IXI filed an *ex parte* reexamination of the patent. The patent issued from reexamination with one amended claim and 68 new claims. U.S. Patent No. 7,039,033 (requested Mar. 24, 2017) (issued Feb. 1, 2018). IXI obtained the reexamined claims by adding trivial additional limitations—like a "speaker," a "microphone," and a "touchscreen"—that make the new claims no more novel than the canceled claims.

109. Similarly, on December 21, 2016, the PTAB found unpatentable all but one of the asserted claims of another asserted patent, U.S. Patent No. 7,295,532 (the "'532 patent"). *See* IPR2015-01443, Paper 27 (PTAB Dec. 21, 2016). The USPTO thereafter instituted a reexamination of the '532 patent challenging, among other claims, the sole originally-asserted claim that survived the *inter partes* review. All challenged claims, including the lone remaining originally-asserted claim, currently stand rejected. Office Action (mailed Sept. 25, 2018). In response, IXI is seeking to add numerous new claims and argues for patentability of the challenged claims.

110. IXI subsequently moved to amend its infringement contentions in the litigation against Apple to assert newly-issued claims and additional unspecified claims that have not yet even been allowed by the USPTO. *IXI Mobile (R&D) Ltd. v. Apple Inc.*, Case No. 15-cv-3755 (HSG) (N.D. Cal. Mar. 7, 2019), Dkt. 157. IXI thereby seeks to restart the litigation that it comprehensively lost five years after the complaint was filed. Apple opposed IXI's motion,

arguing that IXI's attempt to insert reexamined claims into the litigation should be barred by res judicata. *Id*., Dkt. 164. That motion is currently pending.

111. Apple filed *inter partes* review petitions on the reexamined claims of the '033 patent in 2018, but the PTAB denied institution because—even though the new claims did not exist during the year after the complaint was filed—the PTAB concluded that the petitions were time-barred. *Apple Inc., v. IXI IP, LLC*, IPR2019-00124, Paper 13 (PTAB Jun. 3, 2019). IXI thus effectively immunized its patent from *inter partes* review challenge.

F. Seven Networks

112. In May 2017, Seven Networks sued ZTE and Samsung in the Eastern District of Texas on the same seven patents and also asserted those patents plus two others against Google. Seven Networks voluntarily dismissed its case against ZTE a couple months later before refiling the same patents. In November 2018, Seven Networks asserted another group of six patents against Samsung and Google.

113. Seven Networks eventually obtained settlements with ZTE, Samsung, and Google. *Seven Networks, LLC v. ZTE (USA) Inc.*, No. 3:17-cv-1495 (N.D. Tex. Aug. 14, 2019), Dkt. 318; *Seven Networks, LLC v. Samsung Elecs. Co., Ltd.*, No. 2:17-cv-441 (E.D. Tex. Dec. 28, 2018), Dkt. 67; *Seven Networks, LLC v. Google LLC*, No. 2:17-cv-442 (E.D. Tex. Jan. 20, 2019), Dkt. 608.

114. Seven Networks sued Apple on April 10, 2019 in the Eastern District of Texas, asserting sixteen patents against Apple related to a wide range of Apple products and services. Per the complaint, Seven Networks is listed as the "assignee of all rights, title, and interest in" for each of the sixteen patents-in-suit.

G. KIP CR P1

115. Since receiving a loan from Fortress Credit in 2013, Crossroads has asserted eight separate patent actions in the Western District of Texas against Dot Hill Systems Corp.; Oracle Corporation; Huawei Technologies Co., Ltd.; Huawei Enterprise USA, Inc.; Huawei Technologies

USA, Inc.; Cisco Systems, Inc.; NetApp, Inc.; and Quantum Corporation claiming infringement of some combination of U.S. Patent Nos. 6,425,035 (the "'035 patent"), 7,051,147 (the "'147 patent"), 7,934,041 (the "'041 patent"), and 7,987,311 (the "'311 patent"). Specifically, Crossroads alleged in each of the eight actions that the '035 patent was infringed, and in seven of the actions that the '041 patent was infringed.

116. In final written decisions dated January 29, 2016 and March 17, 2016, the PTAB found in *inter partes* review proceedings all asserted claims of the asserted '035 and '041 patents were invalid. The U.S. Court of Appeals for the Federal Circuit affirmed that decision on June 6, 2017.

117. Fortress and KIP CR P1 agreed to step into the place of Crossroads in these litigations notwithstanding the PTAB and Federal Circuit findings. Fortress's subsequent writs of certiorari to the Supreme Court challenging the constitutionality of the PTAB's *inter partes* review process were denied on April 30, 2018. Each of these actions was ultimately dismissed.

III. FORTRESS AND THE OTHER DEFENDANTS HAVE HARMED COMPETITION IN A MARKET FOR PATENTS FOR HIGH-TECH CONSUMER AND ENTERPRISE ELECTRONIC DEVICES AND COMPONENTS OR SOFTWARE THEREIN AND PROCESSES USED TO MANUFACTURE THEM

118. Fortress and the other Defendants, through their anticompetitive conduct, have harmed competition in an antitrust market for patents for high-tech consumer and enterprise electronic devices and components or software therein and processes used to manufacture them, the "Electronics Patents Market."

119. The Electronics Patents Market constitutes a relevant patent licensing market where Fortress (either directly through its PAE subsidiaries or by acting in concert with the PAEs in which it invests) and other holders of patents claimed to read on electronic devices demand that suppliers of electronic products license their patents.

120. The geographic scope of the Electronics Patents Market is the United States, as patents are national in scope.

121. Fortress has market power in the Electronics Patents Market based on the number of patents that Fortress and its PAEs have aggregated, the means by which Fortress and Defendants hold and assert those patents, and the other anticompetitive conduct described above and below.

122. The supracompetitive licensing returns Fortress's PAEs have obtained are direct evidence of its market power. For example, DSS obtained a settlement from Intel and Uniloc has been able to coerce several parties (including Amazon and Huawei) to license its patents, even though the patents lack merit. Fortress has been able to acquire patents at costs below their hold-up value and then, through the benefit of its anticompetitive scheme, extract higher payments from licensees that reflect hold-up value rather than the actual value of the patents based on their technical and commercial merits.

123. Defendants' demands also show that Fortress has the power to control prices in Fortress's Portfolio Market. As detailed above, VLSI purports it is entitled to billions of dollars from Intel.

124. By creating a massive portfolio, Fortress decreases the importance of any particular patent held by its PAEs because, given the size of the portfolio, it becomes exceedingly difficult for any potential licensee to meaningfully analyze the patents in the portfolio in a systematic fashion. Thus, the size of the aggregated portfolio imposes substantial costs to for suppliers of electronic devices to design or work around no matter the merits of the constituent patents. Further, as described above, Fortress's PAEs assert their patents to read broadly on the accused products in ways that are facially invalid, but that Fortress's PAEs also claim make it infeasible to design around. Moreover, the features of products accused of infringement by Fortress's PAEs may be difficult or impossible to modify because of the extremely high switching costs involved given the investments that have already been made in product design and production. Even if targets of Fortress-backed assertions have had success in invalidating or proving non-infringement of certain Fortress-backed patents, Fortress and its PAEs just turn to the next patent in the portfolio to assert. Fortress and its PAEs exploit that dynamic to shield from scrutiny their patents and to extract royalties based on the size of the portfolio (including by distributing it among multiple PAEs to

assert) rather than its quality. Further, the asserted SEPs held by INVT and Uniloc 2017, by definition, claim to cover essential technology that it would generally not be feasible to design around if they are actually essential.

125. Thus, the power of Fortress's patent portfolio is not based on the value or lawful scope of its constituent patents, but on the size of the portfolio itself, which imposes hurdles to design around regardless of the merits of the patents within it, and its distribution among aggressive PAEs, including VLSI and DSS. That size allows the PAEs to threaten serial litigation and impose uncertainty on their victims regardless of the merits of the asserted patents, which become secondary to the sheer size of the portfolio. Accordingly, the targets of Fortress's PAEs' assertions have no choice but to buy licenses from the PAEs or to face endless, meritless litigation. Before aggregation, the holders of meritless patents lacked the same incentives to assert them as do Fortress and its PAEs. But, to the extent that they had asserted them, litigation would have been a viable possibility for the targets to address those assertions. In their aggregation and serial assertion strategy, however, Fortress and its PAEs are not dissuaded by repeated litigation failures from asserting ever more patents.

126. Fortress's aggregation of patents also decreases access to any patents that Fortress controls for which a licensee might actually want a license to use the technology in the patent. Before aggregation, those patents could have been the subject of licensing discussions focusing on the merits of the patents and that would have promoted use of the technology. But by aggregating potentially valuable patents in a huge portfolio with meritless patents in an anticompetitive scheme, Fortress and the PAEs obscure those patents from the market and reduce the availability of information. Thus, rather than increasing efficiency and enhancing output, the scheme has the opposite effect—the value of meritless patents is enhanced and the value of any patents in which there might have been interest in practicing is decreased, thereby reducing innovation and output.

127. There is no procompetitive justification for the anticompetitive aggregation of patents by Fortress and its PAEs. To the extent Defendants assert that any procompetitive justifications exist, such purported justifications are outweighed by the anticompetitive effects in

the markets alleged herein or could be obtained through less restrictive means. As an example, NXP's securities filings indicate that it has a patent portfolio of over 9,000 patent families and that "[i]n situations where we believe that a third party has infringed on our intellectual property, we enforce our rights through all available legal means to the extent that we determine the benefits of such actions to outweigh any costs and risks involved." Further, NXP confirms that it has experience in licensing its own patents. Thus, NXP would have been capable of licensing to third parties the patents that it transferred to VLSI, if those patents had merit. But what it could not have done was to capture the hold-up value of such patents as VLSI seeks to do and to do so in a way that overcame the "costs and risks involved."

IV. IN THE ALTERNATIVE, FORTRESS AND THE OTHER DEFENDANTS HAVE HARMED COMPETITION IN A MARKET FOR LICENSES TO FORTRESS'S AGGREGATE PORTFOLIO

128. In the alternative to the antitrust market described above in Section III, Fortress holds a monopoly in an antitrust market for licenses to the patent portfolio that it owns or controls relating to electronic devices (including components and software for such devices), "Fortress's Portfolio Market."

129. Fortress's Portfolio Market constitutes a relevant licensing market because Fortress (either directly through its PAE subsidiaries or through the PAEs in which it invests, acting in concert with it) demand that electronics companies license the patents in the portfolio to continue selling their products. The targets of Fortress and its PAEs' assertions cannot license alternative portfolios from other patent holders, because such alternative portfolios would not eliminate the need to address the licensing threat from the PAEs. Nor can the targets of Fortress and its PAEs' patents practically design around the Fortress portfolio because of its massive size. Fortress and its PAEs assert patents broadly against locked-in features in the electronic devices of their targets in such volume that even if it is possible to design around particular patents (or to have particular patents found invalid or not infringed), it is not possible to fully escape their assertions.

130. The geographic scope of Fortress's Portfolio Market is the United States, as Fortress has aggregated U.S. patents into a portfolio that a supplier of electronic devices in the United States cannot avoid.

131. Fortress has monopoly power in Fortress's Portfolio Market.

132. The supracompetitive licensing returns Fortress's PAEs have obtained are direct evidence of its market power. For example, DSS obtained a settlement from Intel, and Uniloc has been able to coerce several parties (including Amazon and Huawei) to license its patents, even though those patents lack merit. Fortress has been able to acquire patents at costs below their hold-up value and then, through the benefit of its anticompetitive scheme, extract higher payments from licensees that reflect hold-up value rather than the actual value of the patents based on their technical and commercial merits.

133. Fortress's PAEs' demands also show that Fortress has the power to control prices in Fortress's Portfolio Market. As detailed above, VLSI purports it is entitled to billions of dollars from Intel.

134. Fortress (including through the PAEs it controls) has a 100% share of Fortress's Portfolio Market because it alone can offer a license for the patents that comprise the portfolio.

Fortress faces no threat of entry from would-be competitors to constrain its monopoly power in Fortress's Portfolio Market because no other entity can offer a license to the portfolio of patents that Fortress holds and, by definition, no other patent portfolio can act as a substitute.

135. Through creating a massive portfolio, Fortress decreases the importance of any particular patent held by its PAEs because, given the size of the portfolio, it becomes virtually impossible for any potential licensee to meaningfully analyze the patents in the portfolio in a systematic fashion. Thus, the size of the aggregated portfolio imposes substantial costs to work around for suppliers of electronic devices no matter the merits of the constituent patents. Further, as described above, Fortress's PAEs assert their patents to read broadly on the accused products in ways that are facially invalid, but that Fortress's PAEs also claim make it impossible to design around. Moreover, the features of products accused of infringement by Fortress's PAEs may be

difficult or impossible to modify because of the extremely high switching costs involved given the investments that have already been made in product design and production. Even if targets of Fortress-backed assertions have had success in invalidating or proving non-infringement of certain Fortress-backed patents, Fortress and its PAEs just turn to the next patent in the portfolio to assert. Fortress and its PAEs exploit that dynamic to shield from scrutiny their patents and to extract royalties based on the size of the portfolio (including by distributing it among multiple PAEs to assert) rather than its quality. Further, the asserted SEPs held by INVT and Uniloc 2017, by definition, claim to cover essential technology that it would not be feasible to design around.

136. Thus, the power of Fortress's patent portfolio is not based on the value or lawful scope of its constituent patents, but on the size of the portfolio itself, which imposes hurdles to design around regardless of the merits of the patents within it, and its distribution among aggressive PAEs. That size allows Fortress and its PAEs' to threaten serial litigation and impose uncertainty on their victims regardless of the merits of the asserted patents, which become secondary to the sheer size of the portfolio. Accordingly, the targets of Fortress's PAEs' assertions have no choice but to buy licenses from the PAEs or to face endless, meritless litigation. Prior to aggregation, the holders of meritless patents lacked the same incentives to assert them as do Fortress and its PAEs. But, to the extent that they had asserted them, litigation would have been a viable possibility for the targets to address those assertions. In their aggregation and serial assertion strategy, however, Fortress and its PAEs are not dissuaded by repeated litigation failures from asserting ever more patents.

137. Fortress's aggregation of patents also decreases access to any patents that Fortress controls for which a licensee might actually want a license in order to use the technology in the patent. Prior to aggregation, those patents could have been the subject of licensing discussions focusing on the merits of the patents and would have promoted use of the technology. But by aggregating potentially valuable patents in a huge portfolio with meritless patents in an anticompetitive scheme, Fortress and its PAEs obscure those patents from the market and reduce the availability of information. Thus, rather than increasing efficiency and enhancing output, the

scheme has the opposite effect—the value of meritless patents is enhanced and the value of any patents in which there might have been interest in practicing is decreased, thereby reducing innovation and output.

138. There is no procompetitive justification for the anticompetitive aggregation of patents by Fortress and its PAEs. To the extent Defendants assert that any procompetitive justifications exist, such purported justifications are outweighed by the anticompetitive effects in the markets alleged herein or could be obtained through less restrictive means. As an example, NXP's securities filings indicate that it has a patent portfolio of over 9,000 patent families and that "[i]n situations where we believe that a third party has infringed on our intellectual property, we enforce our rights through all available legal means to the extent that we determine the benefits of such actions to outweigh any costs and risks involved." Further, NXP confirms that it has experience in licensing its own patents. Thus, NXP would have been capable of licensing to third parties the patents that it transferred to VLSI. But what it could not have done was to capture the hold-up value of such patents as VLSI seeks to do and to do so in a way that overcame the "costs and risks involved."

V. THE ANTICOMPETITIVE EFFECTS OF DEFENDANTS' SCHEME

139. As set forth above, Fortress possesses market power in the Electronic Patents Market (or in the alternative, monopoly power in Fortress's Portfolio Market).

140. Putting aside market definition, direct evidence demonstrates the adverse effects on competition of the anticompetitive conduct of Fortress and the other Defendants through aggregation (as described above and below). In particular, through their aggregation scheme, Fortress and the other Defendants seek and/or obtain far more for their patents than the costs at which they acquired those patents.

141. Fortress and its PAEs' anticompetitive scheme—including patent aggregation, ownership by an array of aggressive PAEs, and baseless litigation—has led to anticompetitive effects, reduced output, the creation and enhancement of market power in the Electronic Patents Market (or, in the alternative, the creation and enhancement of monopoly power in Fortress's

Portfolio Market). Fortress and the other Defendants' conduct has harmed competition in interstate commerce.

142. In particular, Defendants' illegal scheme has resulted in inflated licensing royalties—i.e., higher prices—and imposed burdens, costs, and uncertainties for Intel and other purchasers in the Electronic Patents Market (or, in the alternative, in Fortress's Portfolio Market). The purchasers in those markets include electronic device suppliers (e.g., of smartphones, tablets, and computers) and providers of components for such devices (e.g., processors and chipsets, such as those offered by Intel) that are potential and actual licensees. In addition, as a result of the illegal conduct of Fortress and the other Defendants, U.S. and other end consumers have been harmed and face a continuing threat of increased prices and reduced innovation and quality for electronic devices.

143. Defendants' illegal conduct causes obvious harm to licensees such as Intel—i.e., customers in the Electronic Patents Market (or, in the alternative, in Fortress's Portfolio Market)—when they are compelled to pay inflated royalties. Licensing customers are also harmed, even when they do not acquiesce to an inflated royalty, by being forced to incur substantial expenses, uncertainty, and burdens in resisting the patent litigations and threats that the aggregation and transfer schemes of Defendants have enabled. For example, Intel has spent millions of dollars to date on outside resources (including counsel, experts, and vendors) to defend against Fortress-backed demands and assertions. Intel has also been harmed by the enormous amounts of time its employees have been forced to spend on these matters, including negotiating with Defendants as well as collecting information and documents and preparing for depositions, rather than doing their jobs. In Intel's litigation against VLSI in Delaware, Intel's disclosures identify twenty-five Intel employees with knowledge relevant to the litigation, including engineers and employees in the marketing and finance departments. An employee identified in such disclosures is typically deposed, necessitating at least two full days dedicated to the litigation between preparation and sitting for the deposition, in addition to other time dedicated to identifying relevant documents or providing information to counsel on the facts of the case. Defendants have employed the strategies

set forth herein to impose these costs on licensees and to use their leverage to extract unreasonable and unjustified royalties.

FIRST COUNT

Agreements to Restrain Competition in Patent Licensing

(Section 1 of the Sherman Act)

(Claim Against Fortress, Fortress Credit, and DSS)

144. Intel repeats and realleges the allegations of the preceding and subsequent paragraphs as if fully set forth herein.

145. As alleged above, Fortress and Fortress Credit reached agreements with DSS and other PAEs to aggregate patents under Fortress's control and to assert patents to increase the total royalties obtained from licensing the Fortress-backed patents. Fortress and DSS intended that through their agreements they would extract royalties from their targets—like Intel—beyond the royalties that could have been obtained but for aggregation by Fortress.

146. The agreements between Fortress, Fortress Credit and its PAEs, including DSS, to aggregate patents substantially raised or threaten to raise prices and have resulted or threaten to result in other anticompetitive effects, including in the Electronic Patents Market (or, in the alternative, in Fortress's Portfolio Market), and for downstream products sold to consumers. The agreements have substantially affected interstate commerce.

147. The agreements to aggregate and assert patents generated no efficiencies, and in fact were designed to create inefficiencies in the licensing that Fortress could exploit to harm Intel and other potential licensees, as well as finished product consumers. Any conceivable efficiencies the agreements may have created were substantially outweighed by their anticompetitive effects or could have been obtained through substantially less restrictive means.

148. As a direct, proximate, and foreseeable result of Fortress and Fortress Credit's unlawful agreements with its PAEs, including DSS, Intel has suffered or will suffer harm to its businesses and property, and, absent an injunction, Intel will continue to suffer from these effects.

Intel's past and continuing harm includes litigation costs, the risk of supracompetitive licensing rates, business uncertainty, and business resources lost in dealing with the consequences of Defendants' unlawful agreements.

SECOND COUNT

Unlawful Asset Acquisitions

(Section 7 of the Clayton Act)

(Claim Against Fortress, Fortress Credit, and VLSI)

149. Intel repeats and realleges the allegations of the preceding and subsequent paragraphs as if fully set forth herein.

150. Fortress, Fortress Credit, and VLSI have acquired numerous patents (or interests in patents), which are assets under Section 7 of the Clayton Act. Those anticompetitive acquisitions include at least those described in Section I above. The effects of the acquisitions have been to lessen competition substantially, and to tend to create market power, including in the Electronic Patents Market (or, in the alternative, in Fortress's Portfolio Market). Among other harms, the transfers have significantly enhanced Fortress, Fortress Credit, and VSLI's ability and incentives to harm competition, including by evading constraints on assertion and creating incentives to assert patents aggressively and thus increasing the cost and likelihood of litigation.

151. As a direct, proximate, and foreseeable result of Fortress, Fortress Credit, and VLSI's unfair and wrongful conduct, as alleged above, there is a significant threat of inflated royalties to consumers of licenses to Fortress-backed patents.

152. As a direct, proximate, and foreseeable result of Fortress, Fortress Credit, and VLSI's unfair and wrongful conduct, as alleged above, there is a significant threat of harm to consumers, including through the inevitable passing on to consumers of the inflated royalties demanded for Fortress-backed patents. The anticompetitive acquisitions have thus harmed consumers electronics products.

153. As a direct, proximate, and foreseeable result of the unlawful patent acquisitions, Intel has suffered or will suffer harm to its business and property, and, absent an injunction and rescission of these transactions, Intel will continue to suffer from these effects. Intel's past and continuing harm include the risk of supracompetitive licensing rates, business uncertainty, litigation costs, and business resources lost in dealing with the consequences of Fortress's unlawfully-acquired patents.

THIRD COUNT

Unfair Competition

(Cal. Bus. & Prof. Code § 17200)

(Claim Against All Defendants)

154. Intel repeats and realleges the allegations of the preceding and subsequent paragraphs as if fully set forth herein.

155. Defendants have engaged in unfair competition in violation of Cal. Bus. Prof. Code § 17200, et seq. As set forth above, Defendants have engaged in illegal conduct by violating the Sherman and Clayton Acts. That conduct is also unfair in that it violates the spirit and policy of the antitrust laws.

156. As a direct result of Defendants' wrongful conduct, competition has been injured, including in the Electronic Patents Market (or, in the alternative, in in Fortress's Portfolio Market) as alleged above. Moreover, this conduct threatens injury to downstream competition for price, innovation, and quality in sales of cellular devices, thereby injuring consumers in California and elsewhere. These threatened injuries include the passing on to consumers of improperly inflated royalties, and decreases in innovation and quality competition.

157. As a direct result of Defendants' illegal conduct, Intel has suffered economic harm in the form of litigation costs and diversion of resources away from innovation to respond to these entities' serial nuisance suits.

FOURTH COUNT

Fortress's Monopolization of Fortress's Portfolio Market

(Section 2 of the Sherman Act)

(Claim Against Fortress Only)

158. Intel repeats and realleges the allegations of the preceding and subsequent paragraphs as if fully set forth herein.

159. Fortress has violated Section 2 of the Sherman Act by willfully acquiring and maintaining monopoly power in the licensing market for the patents in Fortress's Portfolio Market.

160. Fortress's aggregation of patents (whether through acquisition or by investment in PAEs that do its bidding) across a network of PAEs to obscure Fortress's central role and to impede competition constitutes willful acquisition of a monopoly in Fortress's Portfolio Market. Further, Fortress exploits the lock-in effects of product investments by its targets through meritless assertions and litigation, which both enhances Fortress's monopoly power and also confirms Fortress's anticompetitive intent. Fortress has aggregated such a large portfolio with the apparent goal of overwhelming prospective licensees with the threat of serial patent litigation. The combination of patents in the hands of PAEs that do not face reputational constraints in their licensing or litigation of patents creates or enhances monopoly power that did not exist prior to aggregation. Fortress's aim in assembling such a large portfolio dispersed among PAEs was to take advantage of this dynamic and ensure that the value of any particular patent in the portfolio becomes nearly irrelevant in the context of the sheer size and scope of the overall number of patents that can be asserted.

161. Fortress's aggregation of patents generated no efficiencies, and in fact was designed to create inefficiencies in licensing the transferred patents. Any conceivable or purported efficiencies created by Fortress's aggregation are significantly outweighed by their anticompetitive effects.

162. As a direct, proximate, and foreseeable result of Fortress's monopolization, there is a significant threat of inflated royalties to consumers of licenses to Fortress-backed patents. Fortress's anticompetitive scheme has thus harmed competition in Fortress's Portfolio Market.

As a direct, proximate, and foreseeable result of Fortress's monopolization, there is a significant threat of harm to consumers, including through the inevitable passing on to consumers of the inflated royalties demanded by Fortress's PAEs. Fortress's anticompetitive scheme has thus harmed consumers for products of licensees or potential licensees of Fortress-backed patents.

163. As a direct, proximate, and foreseeable result of Fortress's monopolization of Fortress's Portfolio Market, Intel has suffered or will suffer harm to its business and property, and, absent an injunction, Intel will continue to suffer from these effects. Intel's past and continuing harm includes litigation costs, the risk of supracompetitive licensing rates, business uncertainty, and business resources lost in dealing with the consequences of Fortress's PAEs' assertion of their unlawfully-acquired patents.

PRAYER FOR RELIEF

Intel respectfully request the following relief:

a) That Defendants' unlawful conduct be declared a violation of Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1, 2; Section 7 of the Clayton Act, 15 U.S.C. § 18; and Cal. Bus. Prov. Code § 17200, et seq.;

b) That Intel recover damages against Defendants in an amount to be determined and multiplied to the extent provided by law;

c) That all contracts or agreements Defendants entered into violation of the Sherman Act, Clayton Act, or Cal. Bus. Prov. Code § 17200, et seq. be declared void and the patents covered by those transfer agreements be transferred back to the transferors;

d) That all patents transferred to Defendants in violation of the Sherman Act, Clayton Act, or Cal. Bus. Prov. Code § 17200, et seq. be declared unenforceable;

e) Award Intel its costs and expenses associated with this case, together with interest; and

f) Grant such other and further relief as the Court may deem just and proper under the circumstances.

JURY DEMAND

Intel demands a jury trial on all issues and claims so triable.

DATED: October 21, 2019

Respectfully submitted,

By: */s/ Mark D. Selwyn*

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