

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

LENOVO (UNITED STATES) INC. and)
MOTOROLA MOBILITY LLC,)
)
Plaintiffs,)
)
v.)
)
INTERDIGITAL TECHNOLOGY) C.A. No. _____
CORPORATION, IPR LICENSING, INC.,)
INTERDIGITAL COMMUNICATIONS,)
INC., INTERDIGITAL HOLDINGS, INC.,)
and INTERDIGITAL, INC.,)
)
Defendants.)

COMPLAINT

Plaintiffs Lenovo (United States) Inc. (“Lenovo”) and Motorola Mobility LLC (“Motorola”) (collectively “Plaintiffs”) allege the following facts and claims against Defendants InterDigital Technology Corporation, IPR Licensing, Inc., InterDigital Communications, Inc., InterDigital Holdings, Inc., InterDigital Patents Holdings, Inc., and InterDigital Inc. (collectively, “IDC” or “Defendants”).

INTRODUCTION

1. Plaintiffs are among the leading providers of wireless devices—including tablets, laptops, and mobile phones—within the United States, which are sold under the Lenovo and Motorola brands. To make and market these wireless devices, Plaintiffs rely on technology required to be used under the industry-wide third generation (“3G”) and/or fourth generation (“4G”) cellular standards (collectively, “the Cellular Standards”). The Cellular Standards, developed through the Third Generation Partnership Project (“3GPP”) and adopted and promulgated by 3GPP member organizations, such as the European Telecommunications

Standards Institute (“ETSI”), face no meaningful competition and have been implemented by the overwhelming majority of the telecommunications industry. To be commercially viable, cellular wireless devices must comply with the Cellular Standards.

2. Once technology is standardized in ubiquitous standards like the Cellular Standards, implementers become “locked in” to that technology; every entity that seeks to produce standard-compliant products or otherwise compete in the market covered by the ubiquitous standard must employ the standardized technology. To the extent standardized technology is covered by any valid patents, such patents are also “locked in” and will be practiced by parties that implement the functionality of those patents in order to practice the standard and produce commercially viable products. Such patents are often referred to as standard essential patents (“SEPs” generally and “Cellular SEPs” if in relation to the Cellular Standards).

3. These lock-in effects give SEP owners the power potentially to exclude companies from practicing the standard and to raise the cost of practicing the standards by charging supra-competitive royalties that exceed the value of the patented technology independent of its incorporation into the standard. This phenomenon is often referred to as “hold-up.”

4. IDC has engaged in a multi-pronged scheme, through a combination of agreements with its competitors and fraudulent promises, to unlawfully acquire, maintain, and exploit such market or hold-up power arising solely from the alleged essentiality of patents it contends have been incorporated into the Cellular Standards. IDC’s scheme has harmed, and continues to threaten further harm to, (a) competition in the market for wireless devices

compliant with the Cellular Standards, (b) Plaintiffs and other makers of such devices, and (c) consumers.

5. As a threshold step in its scheme, IDC agreed with others in the wireless telecommunication field to restrain competition through the adoption and propagation of the Cellular Standards. IDC, its competitors, and other members of 3GPP together hold overwhelming market power in the wireless telecommunication market broadly, which encompasses at least wireless telecom technology, wireless telecom devices, and wireless telecom services. Through agreement, the collective action of standard-setting, and the resulting standards, IDC and its competitors have conferred significant market power on each holder of a SEP for the Cellular Standards, including IDC itself. By disregarding or circumventing the safeguards intended to ensure that all technology needed to practice these standards will be made available to all implementers of the Cellular Standards on equivalent terms that effectively neutralize any hold-up ability arising from the inclusion of patented technology within the Cellular Standards, IDC has unreasonably restrained competition and unlawfully monopolized the “Relevant Technology Markets” (defined below) and has harmed competition in the wireless telecommunication market generally.

6. By agreeing with competitors and others to restrain trade in competing technologies, IDC has secured market power in the Relevant Technology Markets as a holder of a portfolio of an unknown number of patents that are essential to the Cellular Standards and IDC has obtained the power to control prices in the Relevant Technology Markets. IDC has wielded that power to extract monopoly rents from implementers of the Cellular Standards through many means, including the threat of injunctions that would exclude implementers from the entire wireless telecommunication market. IDC’s ability to exercise hold up in the Relevant

Technology Markets by wielding those purported SEPs in licensing efforts and litigation arises from its collective action with its competitors, not from the original patenting of the technology at issue.

7. In furtherance of its anticompetitive efforts, IDC also has made false or ineffective promises that it would license any essential technology on “fair, reasonable, and non-discriminatory” or “FRAND” terms. IDC’s promises thereby induced its competitors and other members of the standard-setting organizations (“SSOs”) to incorporate IDC’s technology into the Cellular Standards.

8. SSOs, like ETSI, require SEP owners to make commitments to license their SEPs to potential implementers of the standards on FRAND terms in an attempt to mitigate the dangers of hold-up inherent in collective standard-setting activities, which by their nature restrict the technological alternatives that are available in the market. Such FRAND commitments must effectively neutralize any hold-up ability arising from the inclusion of patented technology within the Cellular Standards.

9. In connection with its participation in standard-setting through its membership in ETSI and 3GPP, IDC has submitted IPR Declarations under ETSI’s Intellectual Property Rights (“IPR”) Policy that commit IDC to license any of its SEPs related to the Cellular Standards on FRAND terms to all potential implementers, including Plaintiffs. ETSI and 3GPP relied upon these FRAND licensing commitments when they purportedly incorporated the technology allegedly claimed in patents now owned or controlled by IDC into the Cellular Standards, but IDC did not regard these commitments as meaningfully restraining the terms it could seek for licenses to its alleged SEPs.

10. IDC compounded the deceptive nature of its IPR Declarations by declaring thousands of its patents as essential to the Cellular Standards without regard to whether those patents are actually—or reasonably may become—essential, thereby creating a thicket of alleged SEPs intended to raise the costs and complexity, as a practical matter, for potential licensees to assess fully those claims of essentiality. In doing so, IDC tilts negotiations improperly in its favor through a massive and disproportionate imposition of transaction costs upon implementers of the Cellular Standards that seek to license Cellular SEPs on FRAND terms. IDC, thereby, has obtained the power to extract supra-FRAND terms and conditions from implementers that are based not on the value of any SEPs that IDC may hold, but rather on transaction costs imposed by the asserted size of its SEP portfolio and the threat of unending, serial litigation and potential exclusion. IDC thus uses its artificially inflated portfolio of declared SEPs—which in prior disputes has been shown to include many valueless and non-essential patents—to impose added costs on implementers, all to the harm of competition within the market for cellular technology.

11. Finally, IDC has perpetuated its anticompetitive scheme through an ongoing and conscious disregard of both its FRAND licensing obligations and its overarching obligation not to exploit the hold-up power that it obtained only through the agreements it has entered with its competitors to restrain technological competition, which IDC has demonstrated in licensing negotiations with Plaintiffs and others. This pattern of conduct not only breaches IDC's FRAND licensing obligations, but it renders unlawful the agreements it has made with its competitors in the standard-setting process to restrict the technology available to consumers and IDC's acquisition of a monopoly position in the Relevant Technology Markets.

12. Flowing from its pattern of conspiracy, deceit and disregard of its binding obligations, IDC now claims to have thousands of (alleged) Cellular SEPs, which IDC has exploited unlawfully against Plaintiffs and others by:

- a) Refusing to license its patents on FRAND terms, and characterizing its FRAND licensing obligations in past proceedings as essentially meaningless;
- b) Demanding excessive and unreasonable royalties from Plaintiffs and others by, among other things, seeking to appropriate the value of innovations included in Plaintiffs' products that are unrelated to IDC's alleged SEPs;
- c) Discriminating in its licensing demands against Plaintiffs and others based upon, *inter alia*, their smaller size relative to larger industry participants, thereby raising barriers to market entry and expansion and inhibiting competition among the makers of devices that implement the Cellular Standards;
- d) Without regard to IDC's patent coverage (or lack thereof) in particular countries or regions around the world, tying access to its U.S. patents to the requirement that Plaintiffs and others pay royalties on world-wide sales;
- e) Hiding its discriminatory licensing practices by tying access to its SEPs—and to proposed terms for licenses to those SEPs—to prospective licensees' agreement to enter into non-disclosure agreements, and refusing to disclose the terms and conditions IDC has

previously provided to Plaintiffs' competitors to license the same alleged SEPs; and

- f) Dividing its portfolio among different entities in an effort to "double-dip" in collecting royalties from implementers of the Cellular Standards.

13. Plaintiffs have endured the effects of IDC's conduct. Despite Plaintiffs' offers to pay tens of millions of dollars and other potential consideration, IDC has refused to date to agree to license Plaintiffs to IDC's alleged Cellular SEPs on FRAND terms and conditions. Instead, IDC continues to insist that Plaintiffs pay royalties at unreasonable and discriminatory levels far in excess of those at which IDC has licensed Plaintiffs' key competitors, including Apple and Samsung, without regard to the actual value of IDC's allegedly essential technology.

14. By at least the above-described acts, practices, and conduct, IDC has entered into a contract, combination, or conspiracy that has restrained trade unreasonably and has monopolized each of the Relevant Technology Markets.

15. IDC's actions have injured competition by excluding alternative technologies and imposing unjustified costs on Plaintiffs and other companies that are consumers of the technologies. Absent IDC's conduct, Plaintiffs would have been able to obtain access to necessary technology in the Relevant Technology Markets on FRAND terms.

16. In addition, IDC's actions described above have breached the FRAND licensing commitments it entered into with ETSI, as to which Plaintiffs and other implementers of the Cellular Standards are third party beneficiaries. IDC's breach of these obligations has injured Plaintiffs and others who have been unable to obtain licenses to IDC's Cellular SEPs on

FRAND terms and conditions, and also renders unlawful the agreements IDC has made with others within the ETSI and 3GPP standard-setting process.

17. Plaintiffs thus bring this action for injunctive relief and costs under Section 16 of the Clayton Act, 15 U.S.C. § 26, and the common law to address IDC's breach of its FRAND licensing commitments and IDC's violation of the U.S. antitrust laws via its on-going abuse of the standard-setting process and the patents that it claims are essential to the Cellular Standards. Plaintiffs are willing licensees and seek a license to the alleged SEPs owned or controlled by IDC on FRAND terms and conditions. Accordingly, Plaintiffs seek to enjoin further unlawful behavior by IDC, as well as a declaration of their rights and injunctive relief sufficient to cure IDC's unlawful behavior and enable Plaintiffs to secure a license to the alleged U.S. SEPs owned or controlled by IDC on FRAND terms and conditions.

THE PARTIES

A. Lenovo and Motorola

18. Plaintiff Lenovo (United States) Inc. ("Lenovo US") is a corporation organized under the laws of the State of Delaware, with its principal place of business at 8001 Development Dr., Morrisville, NC 27560. Lenovo US develops and markets a broad portfolio of personal computers, wireless devices, and smart devices capable of incorporating the Cellular Standards worldwide. Lenovo US's business relies upon compliance with applicable Cellular Standards.

19. Plaintiff Motorola Mobility LLC ("Motorola") is an affiliate of Lenovo US. Motorola is a corporation organized under the laws of the State of Delaware, with its principal place of business at 222 W. Merchandise Mart Plaza, Chicago, IL 60654. In 2014, Plaintiffs' ultimate parent, Lenovo Group Limited, acquired Motorola. Motorola designed and

produced the first commercial cellular device—the Dyntac 800XX—in 1983. Today, Motorola also develops and markets a portfolio of personal wireless devices capable of incorporating the Cellular Standards worldwide. Motorola’s business relies upon compliance with applicable Cellular Standards.

B. IDC

20. Upon information and belief, Defendant InterDigital, Inc. (“IDI”) is a company organized and existing under the laws of Delaware, with a place of business at 200 Bellevue Parkway, Suite 300, Wilmington, DE 19809.

21. Upon information and belief, Defendant InterDigital Technology Corporation (“InterDigital Technology”) is a company organized and existing under the laws of Delaware, with a place of business at 200 Bellevue Parkway, Suite 300, Wilmington, DE 19809.

22. Upon information and belief, Defendant IPR Licensing, Inc. (“IPR Licensing”) is a company organized and existing under the laws of Delaware, with a place of business at 200 Bellevue Parkway, Suite 300, Wilmington, DE 19809.

23. Upon information and belief, Defendant InterDigital Communications, Inc. (“InterDigital Communications”) is a company organized and existing under the laws of Delaware, with a place of business at 200 Bellevue Parkway, Suite 300, Wilmington, DE 19809.

24. Upon information and belief, Defendant InterDigital Holdings, Inc. (“InterDigital Holdings”) is a company organized and existing under the laws of Delaware, with a place of business at 200 Bellevue Parkway, Suite 300, Wilmington, DE 19809.

25. Upon information and belief, Defendant InterDigital Patent Holdings, Inc. (“InterDigital Patent Holdings”) is a company organized and existing under the laws of Delaware, with a place of business at 200 Bellevue Parkway, Suite 300, Wilmington, DE 19809.

26. Upon information and belief, InterDigital Communications, InterDigital Technology, InterDigital Holdings, InterDigital Patent Holdings, and IPR Licensing are wholly-owned direct or indirect subsidiaries of IDI. IDI, InterDigital Communications, InterDigital Technology, InterDigital Holdings, InterDigital Patent Holdings, and IPR Licensing act as a common, unified economic enterprise. Upon information and belief, IDI has dictated and controlled the actions of InterDigital Communications, InterDigital Technology, InterDigital Holdings, InterDigital Patent Holdings, and IPR Licensing as described herein.

27. Upon information and belief, IDC derives its revenue almost exclusively from its patent licensing business. IDC claims to hold in excess of 30,000 patents and patent applications worldwide, and it claims to hold thousands of patents essential to one or more of the Cellular Standards.

JURISDICTION AND VENUE

28. Plaintiffs bring this action for breach of contract and violation of the antitrust laws seeking injunctive relief, declaratory relief, costs of suit, and reasonable attorneys' fees pursuant to, *inter alia*, Sections 1 and 2 of the Sherman Act and Section 16 of the Clayton Act, 15 U.S.C. §§ 1, 2, 26. Accordingly, this Court has jurisdiction to hear this case pursuant to 28 U.S.C. §§ 1331, 1337, and Section 16 of the Clayton Act, 15 U.S.C. § 26.

29. To the extent any of Plaintiffs' claims are deemed to arise under state law, this Court has subject matter jurisdiction over those claims pursuant to 28 U.S.C. § 1367, because such claims arise from the same factual nucleus as Plaintiffs' federal law claims.

30. This Court has personal jurisdiction over the Defendants pursuant to at least 15 U.S.C. § 22, and because each of the Defendants are incorporated in the State of Delaware. Upon information and belief, each of the Defendants has conducted and continues to

conduct business within the United States and this District such that they have purposefully availed themselves of the privileges of conducting activities in the United States and this District, and each has purposefully directed specific activities to the United States as a whole and to this District.

31. Venue is proper under Section 12 of the Clayton Act, 15 U.S.C. § 22 and pursuant to 28 U.S.C. § 1391(b). Each of the Defendants is found, transacts business, and resides in this District.

FACTUAL ALLEGATIONS

32. Plaintiffs bring this action because of IDC's unlawful conduct in the standard-setting process and in licensing and enforcing patents that it has alleged to be essential to the Cellular Standards, including its breach of its commitments to license those patents on FRAND terms and conditions.

Wireless Telecommunication Standard Setting Organizations and Relevant Standards

33. Today's cellular communications depend on widely distributed networks that implement the Cellular Standards. These standards promote availability and interoperability of standardized products regardless of geographic boundary. Cellular Standards have evolved over generations, beginning with the "first generation"—or "1G"—standards developed in the 1980s. *See In re Qualcomm Antitrust Litig.*, 292 F. Supp. 3d 948, 955 (N.D. Cal. 2017). Second, third, and fourth generation standards followed.

34. SSOs are industry groups that have emerged to develop and manage the Cellular Standards. SSO participants engage in the selection and development of industry technical standards, such as the Cellular Standards, which provide important benefits by resolving interoperability problems. One of the primary SSOs in the cellular communications

area is ETSI. From the outset, however, ETSI and other SSOs have been warned that where the participants or the resulting standard manifest a dominant market position, the exercise of the market power derived from the standard must be constrained—particularly as it pertains to the granting of licenses to patents incorporated into the standard. *See, e.g.*, Ex. 1 (EU Communication: Intellectual Property Rights and Standardization), §§ 5.1.6, 5.1.7, 1992.

35. As work began on the 3G Cellular Standards, collaborations of SSOs formed to ensure global standardization. One such collaboration is 3GPP. As 4G technology emerged, 3GPP also developed the 4G LTE family of standards. Another collaboration, the Third Generation Partnership Project 2 (“3GPP2”), focused its 3G standardization efforts on the CDMA2000 standard.

36. Individual member SSOs of 3GPP and 3GPP2 are known as Organizational Partners. An Organizational Partner approves the 3GPP or 3GPP2 scope and transposes 3GPP or 3GPP2 technical specifications into the Organizational Partner’s own standards. ETSI is an Organizational Partner of 3GPP.

37. The history of standardization in wireless telecommunication is important. Prior to the adoption of 2G standards, 1G cellular connectivity offered relatively basic functionality, supporting just a few analog signals (as opposed to the digital signals used today). In the late 1980s, the cellular industry began moving towards 2G and developed a number of different standards, including the Global System for Mobile communications (“GSM”) and Code Division Multiple Access (“CDMA”). Ultimately GSM, and enhancements thereto, and CDMA became the primary standards in 2G cellular communications. The two 2G standards were not interoperable; thus, a device configured for one network would not operate on the other. Device

companies and networks competed to provide the best technology and to attract the most customers.

38. In the late 1990s, companies competing in the cellular industry pushed towards 3G, seeking higher transmission speeds, ability to support more users, and improved reliability. The leading 3G standards families were CDMA2000 and the Universal Terrestrial Radio Access (“UTRA”), which operated in various modes around the world, including Wideband CDMA (“WCDMA”) and TD-SCDMA. The WCDMA standard was also known as Universal Mobile Telecommunications System (“UMTS”), with High Speed Packet Access (“HSPA”), which utilized at least two protocols: High Speed Downlink Packet Access (“HSDPA”) and High Speed Uplink Packet Access (“HSUPA”). Once again, the two main 3G standards were not interoperable, and thus a device configured for a CDMA2000 network would not function on a UMTS network. And, again, device companies and networks competed to provide the best technology and to attract the most customers.

39. In the late 2000s, the cellular industry came together for 4G to develop a single standard: Evolved UTRA (“E-UTRA”), more commonly referred to as Long Term Evolution (“LTE”). LTE was adopted almost universally as the 4G Cellular Standard.

Voluntary Industry Standards Require FRAND Commitments

40. Industry-wide standards present significant anticompetitive risks that potentially impose excessive and unfair costs on users of the standards, and even hinder broad implementation of the standards. SSO members have a self-serving, competitive incentive to convince the SSO to incorporate their technology within the standard. SSO members also often own or hold patents covering the technologies adopted by the standards, creating the potential for opportunistic behavior whereby the owners of SEPs attempt to capture not only the value of the patented technology on its own, but also the value of standardization itself. Such opportunistic

behavior could involve refusing to license certain implementers of the standards, or demanding supra-FRAND royalties that are disproportionate to the value of the SEPs at issue.

41. To prevent the owner of an SEP from blocking or otherwise inhibiting implementation of a given standard, the SEP owner must surrender the market power created by the standardization process. Relevant cellular SSOs maintain IPR policies that impose such duties on SEP holders. Such policies require and/or strongly encourage each member that participates in the standard-development process to disclose on a timely, bona fide basis, all intellectual property rights they are aware of and believe may be essential to a proposed standard. *See, e.g., Ex. 2 (ETSI IPR Policy), § 4.1.*

42. Cellular-enabled devices, including those manufactured by Plaintiffs, must comply with the Cellular Standards developed and promulgated by ETSI and 3GPP. Virtually the entire telecommunications industry, including firms that directly compete with each other, participates in 3GPP and ETSI. The Cellular Standards are developed through a consensus-driven process. As such, the members of 3GPP and ETSI agree upon which technologies will be available to consumers and which technologies will be excluded. Cellular devices that do not conform to the adopted standards will not work with network infrastructure equipment that does conform, and *vice versa*. Cellular devices that do not use the technologies specified in the standard thus have little, if any, market value, regardless of technical merit.

43. Once the members of 3GPP and ETSI select a technology for a particular function in a Cellular Standard, that technology generally becomes widely employed, while alternative technologies that could have performed that function (or alternative functions) are effectively excluded. The Cellular Standards therefore erect a substantial barrier to innovation in alternate technologies. Cellular device makers are “locked-in” to the standard-specified

technology, regardless of its short or long term merits, and are limited in their ability to innovate or use alternative technologies.

44. The Cellular Standards are voluminous sets of requirements and protocols. Much of each standard is built on the technology of prior generations of standards and is in the public domain, not covered by any non-expired patents. Some of the technologies included in the standards, however, may be covered by patents. If the standard specifies the use of a particular technology that is covered by patents, then devices that are in compliance with the standard necessarily infringe those SEPs.

45. Because users may become “locked in” to use of functionality incorporated into the standard through investment in products and services that support the standard, the owners of SEPs may demand and obtain exorbitant royalties for the use of its patents, potentially far in excess of the value, if any, of its specific patented technology independent of the value of the standard as a whole. If unwilling to accede to a patent holder’s excessive license demands, device makers may face the risk of being foreclosed from using any part of the standard, including the unpatented and public domain technologies. This threat of foreclosure, if left unchecked, puts manufacturers’ investments in developing standard-compliant products at risk and inhibits innovation in complementary technologies and new market entry.

46. Patent hold-up using SEPs harms competition, impedes implementation of standards, and imperils any consumer benefits that might otherwise flow from widespread adoption of the standard. This conduct further imperils the customer benefits that flow from innovation and competition among ancillary technologies in devices that use the Cellular Standards for commodity, fungible functions. The requirement that SEPs be licensed on

FRAND terms is imposed to curb this potential for anticompetitive abuse and the results that would flow therefrom.

47. The anticompetitive effects of hold-up are magnified in the context of the Cellular Standards, where thousands of alleged SEPs are held by many different patent holders. The cumulative royalty burden required to satisfy all SEP holders is referred to as the “royalty stack.” To avoid the anticompetitive consequences of aggregate royalty stack becoming prohibitively expensive, a SEP holder is limited to the incremental value of its SEPs. Likewise, because the total royalty for use of the Cellular Standards must be reasonable, the demands of any individual SEP owner must be assessed in light of the total number of SEPs included in the standard.

48. ETSI’s IPR Policy seeks to protect against members’ abuse of the monopoly power that SEPs provide, and should be construed consistent with promoting that goal.

49. The ETSI IPR Policy requires members to disclose on a timely, bona fide basis all intellectual property rights that they believe may be essential to a proposed ETSI standard. In particular, Clause 4.1 of the current ETSI IPR Policy, which is materially the same as earlier versions, provides that: “each [ETSI] MEMBER shall use its reasonable endeavours, in particular during the development of a STANDARD or TECHNICAL SPECIFICATION where it participates, to inform ETSI of ESSENTIAL IPRs in a timely fashion.” This obligation extends to members’ affiliates as well.

50. The ETSI IPR Policy further mandates an irrevocable FRAND licensing commitment by the owner of potential SEPs. Clause 6.1 of the ETSI IPR Policy states: “When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the

owner to give within three months an irrevocable undertaking in writing that it is prepared to grant irrevocable licenses on fair, reasonable and non-discriminatory ('FRAND') terms and conditions" Clause 6.1 lists "MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee's own design for use in MANUFACTURE" as among the uses for which SEP holders must make mandatory FRAND licensing commitments. And, FRAND commitments, pursuant to Clause 6 of the ETSI IPR Policy, "shall be interpreted as encumbrances that bind all successors-in-interest" to the declared SEPs.

51. The FRAND obligations embodied in ETSI's IPR policy and/or otherwise applicable to IDC's Cellular SEPs: (a) limit royalties to the value that the SEP(s) had prior to inclusion in the ETSI standard and in light of other patented and unpatented technology essential to the use of the Cellular Standard; (b) prohibit charging royalties that are higher based solely upon the covered technology being written into the Cellular Standard or that capture the value of the Cellular Standard itself; and (c) require that consistent royalties and terms be made available to competing licensees.

52. During the critical period that precedes adoption of a particular technology into a Cellular Standard, the cost of the technologies under consideration are taken into account by ETSI members in deciding whether any particular technology will be written into the standard. Costs include any royalties that may need to be paid for use of the technologies to be standardized.

53. If an ETSI participant is unwilling to commit to licensing its patents on FRAND terms and conditions, the ETSI IPR Policy makes the participant's unwillingness a dispositive consideration in whether that participant's technologies should be considered for

inclusion. Clause 8.1.1 of the ETSI IPR Policy states: “Where prior to the publication of a STANDARD or a TECHNICAL SPECIFICATION an IPR owner informs ETSI that it is not prepared to license an IPR in respect of a STANDARD or TECHNICAL SPECIFICATION in accordance with Clause 6.1 above, the General Assembly shall ... satisfy itself that a viable alternative technology is available ...” In those instances in which, in the opinion of the General Assembly, no viable alternative technology exists, Clause 8.1.2 further provides that work on the standard or technical specification at issue “shall cease.” On information and belief, IDC understood that the consequence of a refusal to commit to license its declared SEPs on FRAND terms pursuant to Clause 6.1 of the ETSI IPR Policy would be the exclusion of its patented technologies from the Cellular Standards. Accordingly, IDC made false promises to license its SEPs on FRAND terms and conditions in order to deceive ETSI members into standardizing its technologies. In addition to providing IDC with the power flowing from the inclusion of its patented technologies in the Cellular Standards, IDC’s false promises excluded alternate technology from incorporation in those same standards and/or caused the standardization of technology that otherwise would not have been standardized.

The Relevant Technology Markets

54. For purposes of Plaintiffs’ antitrust claims, the relevant markets are the markets for technologies covered by the IDC patents issued in the United States that are essential, or are alleged to be essential, to the Cellular Standards, together with all other alternative technologies to the IDC SEPs that could have been used in the Cellular Standards. Throughout, these are referred to collectively as the “Relevant Technology Markets.”

55. Once ETSI adopts technology for a cellular standard, the owner of each SEP used in that standard obtains monopoly power in a relevant technology market. When patented technology is incorporated in a standard, adoption of the standard eliminates

alternatives to the patented technology, and companies wanting to market devices that comply with the standard are “locked in” and must use the SEPs. IDC has submitted declarations that many of its patents are essential to the Cellular Standards, and made accompanying declarations to license those patents on FRAND terms. The markets encompassed within the Relevant Technology Markets can thus be identified from IDC’s licensing declarations to ETSI.

56. Before the adoption of the Cellular Standards, competitors in the Relevant Technology Markets included companies with technology capable of performing the same or equivalent functions that could have been adopted by ETSI and its members. Additional competitors include the companies that offered technologies that could have been used in alternate Cellular Standards that were foreclosed once ETSI members adopted a standard that included the IDC SEPs.

57. Because of the lock-in effect described above, once the Cellular Standards incorporated the IDC SEPs, IDC became the only commercially viable and relevant seller inside the United States in each of the Relevant Technology Markets.

IDC’s Unlawful Acquisition Of Monopoly Power

58. The Cellular Standards effectively dictate what technology must be used and, by implication, also dictate that alternative technology will not be used. Correspondingly, the opportunities to monetize cellular technology that is not included in the Cellular Standards tend to be limited in comparison to the opportunities to license the widely-deployed technology specified within the Cellular Standards, and the holders of patents on cellular technology that is not included in the Cellular Standards generally lack market power in attempting to license that technology. IDC participated in the drafting and development of Cellular Standards, and took actions to ensure that the Cellular Standards as written would include IDC’s patented technologies. Because IDC does not make or sell products, the only way that it can monetize its

technology is through licensing and it thus has a strong incentive to have its patented technology incorporated into the Cellular Standards.

59. IDC also has a powerful interest in appearing to obtain as many patents as possible that allegedly cover technologies adopted by the Cellular Standards, regardless of the scope or actual use of the technology covered by such patents and whether those patents are valid. Having a very large list of patents and patent applications to claim as essential to the Cellular Standards allows IDC to put maximum pressure on prospective licensees—i.e., standard implementers—to extract maximum royalties for licensing its alleged SEPs.

60. In combination and by agreement with the other members of 3GPP and ETSI, IDC was able to require that technology over which it claims patent rights was included in the Cellular Standards to the exclusion of competing technology.

61. IDC further had an opportunity to manipulate the standard-setting process and its own patent procurement efforts to serve its anticompetitive goals. IDC made submissions to the technical bodies within 3GPP and submitted declarations to ETSI declaring that certain of its patents or patent applications may be or become essential to the Cellular Standards under consideration. IDC also purported to commit to license any SEPs it held on FRAND terms, thereby implying that the cost to implementers of any license would be constrained and not increased due to the inclusion of IDC's patented technology in the Cellular Standards. In particular, IDC submitted at least the following declarations to ETSI, true and correct copies of which are attached as exhibits:

Date	IDC Entity	Signatory	Place Executed	Project(s) or Standard(s)	Exhibit
10/4/01	InterDigital Technology	H. Goldberg	Philadelphia, PA	UMTS	3

Date	IDC Entity	Signatory	Place Executed	Project(s) or Standard(s)	Exhibit
10/4/2001	InterDigital Technology	H. Goldberg	Philadelphia, PA	GSM	4
4/8/2004	InterDigital Technology	D. Boles	Wilmington, DE	UMTS (TS41.101 Rel. 5)	5
4/8/2004	InterDigital Technology	D. Boles	Wilmington, DE	GSM (TS41.101 Rel. 4)	6
3/21/2007	InterDigital Technology	B. Bernstein	n/a	UMTS; E-UMTS	7
9/19/2008	InterDigital Patent Holdings	B. Ditty	Wilmington, DE	UMTS; E-UMTS; GERAN	8
9/19/2008	InterDigital Technology	B. Ditty	Wilmington, DE	GSM; UMTS; E-UMTS; GERAN	9
9/14/2009	InterDigital Patent Holdings	B. Ditty	Wilmington, DE	UMTS; E-UMTS; GERAN	10
9/14/2009	InterDigital Technology	B. Ditty	Wilmington, DE	GSM; UMTS; E-UMTS; GERAN	11
9/16/2010	InterDigital Patent Holdings	B. Ditty	Wilmington, DE	UMTS; LTE; GERAN	12
10/31/2011	InterDigital Patent Holdings	B. Ditty	Wilmington, DE	UMTS; LTE; RRS; M2M	13
10/31/2011	InterDigital Technology	B. Ditty	Wilmington, DE	UMTS; LTE	14
11/30/2012	InterDigital Patent Holdings	B. Ditty	Wilmington, DE	UMTS; LTE; RRS; M2M	15
11/30/2012	InterDigital Technology	B. Ditty	Wilmington, DE	UMTS; LTE	16
11/26/2013	InterDigital Patent Holdings	B. Ditty	Wilmington, DE	UMTS; LTE; RRS; M2M	17
11/26/2013	InterDigital Technology	B. Ditty	Wilmington, DE	GSM; UMTS; LTE	18

Date	IDC Entity	Signatory	Place Executed	Project(s) or Standard(s)	Exhibit
9/26/2014	InterDigital Technology	B. Ditty	Wilmington, DE	UMTS; LTE	19
9/26/2014	InterDigital Patent Holdings	B. Ditty	Wilmington, DE	UMTS; LTE; RRS; M2M	20
9/26/2014	IPR Licensing	B. Ditty	Wilmington, DE	LTE	21
11/12/2015	InterDigital Patent Holdings	B. Ditty	Wilmington, DE	UMTS; LTE; RRS, M	22
11/12/2015	InterDigital Technology	B. Ditty	Wilmington, DE	UMTS; LTE; GERAN	23
11/12/2015	IPR Licensing	B. Ditty	Wilmington, DE	UMTS; LTE	24
12/22/2016	InterDigital Patent Holdings	B. Ditty	Wilmington, DE	UMTS; LTE; RRS; M2M	25
12/22/2016	InterDigital Technology	B. Ditty	Wilmington, DE	UMTS; LTE; GERAN	26
12/22/2016	IPR Licensing	B. Ditty	Wilmington, DE	UMTS; LTE	27
12/22/2017	IPR Licensing	B. Ditty	Wilmington, DE	LTE	28
10/31/2019	InterDigital Holdings	B. Ditty	Wilmington, DE	UMTS; LTE	29
12/31/2019	InterDigital Holdings	B. Ditty	Wilmington, DE	LTE	30

62. IDC made these declarations to exclude alternative technologies and to ensure that the Cellular Standards (and earlier cellular network standards) incorporated IDC's patented technologies such that any manufacturer of standard-complaint devices would need a license to IDC's SEPs. In doing so, IDC concealed its intent to engage in hold-up, to discriminate in the licensing of its SEPs, to tie licenses to its non-SEPs, to tie licenses to U.S. SEPs to payment for foreign sales, to require the payment of royalties on a worldwide basis

without regard to the actual scope of IDC's worldwide SEP coverage, and to charge supra-competitive, unreasonable, and discriminatory royalty rates for its declared SEPs.

63. Pursuant to the ETSI IPR Policy, work on the portions of the standards that are relevant to IDC's SEPs would have ceased if IDC had been truthful about its unwillingness to license its alleged SEPs on FRAND terms and conditions. But for IDC's deception, alternate technologies would have been adopted by ETSI or no particular technology would have been specified.

64. IDC's declarations to ETSI also sought to create an impenetrable web of allegedly essential patents without regard to whether the patents or patent applications disclosed by IDC were or were likely to become actually essential to the standards. IDC's flood of IPR Declarations created a thicket of alleged SEPs that imposes disproportionate burdens on a potential licensee to test the validity and essentiality of any significant percentage of those patents. As a result, IDC delinked what it can demand for a license from potential licensees from the actual value of any actually essential patents in its portfolio.

65. For example, although litigation between Nokia and IDC in the United Kingdom in 2007 established that only 1 of the original list of 29 UK patents claimed by IDC to be essential to the 3G standard was, in fact, essential, *Nokia Corp. v. InterDigital Technology Corp.* [2007] EWHC 3077 (Pat.), IDC continues to claim that it has hundreds or thousands of patents essential to the 3G standard. IDC persists in basing its licensing demands on the size of its alleged portfolio of Cellular SEPs and claims that any potential licensee that does not acknowledge the size of IDC's SEP portfolio is an unwilling licensee engaged in patent "hold out," and therefore should be subject to injunctive relief regardless of the merits of IDC's alleged

SEP portfolio. IDC does so with the knowledge that it is impractical to test or rebut its claim that it owns thousands of Cellular SEPs.

Monopoly Power in the Relevant Technology Markets

66. As described above, in addition to its collective agreement to standardize technology over which IDC purports to hold SEPs, IDC misled the participants in the standard-setting process into believing it was committing to grant licenses to its SEPs on FRAND terms, thereby inducing them (and, as a result, the telecommunications industry in general) to become locked-in to using IDC's SEPs. IDC now asserts that its ETSI FRAND declarations: (a) do not create a meaningfully enforceable obligation to grant licenses on FRAND terms and conditions; (b) do not require it to even entertain offers to license less than its entire global portfolio of SEPs; and (c) do not bar IDC from using the threat of injunctive or other exclusionary remedies to extort supra-competitive prices and terms for licenses to its purported SEPs.

67. IDC claims to hold a portfolio of over 34,000 patents and patent applications worldwide. As a result of its manipulation of the standard-setting process, its deceptive FRAND commitments, and its over-declaration of patents to ETSI, IDC claims that thousands of its patents are essential to the Cellular Standards, although it is careful not to identify all such patents with particularity. Instead, IDC purports to control 7-10% of the patents "likely" to be essential to the 3G UMTS standard and nearly 10% of the patents "likely" to be essential to the 4G LTE standard.

68. IDC has therefore—by its agreements with the other members of 3GPP and ETSI, deceptive promises, and manipulation of the standard-setting process—unlawfully excluded competing technologies from each of the Relevant Technology Markets and acquired monopoly power in those markets. As the sole supplier in the Relevant Technology Markets, IDC has the power to extract supra-competitive prices. Because implementers are locked in to

the Cellular Standards, and those standards require use of technologies over which IDC claims to have patents, there are high or insurmountable barriers to entry in the Relevant Technology Markets.

IDC's Abuse of Its Market Position

69. IDC is required to license its alleged SEPs consistent, in all respects, with FRAND terms and conditions that do not permit it to exploit the hold-up power it has obtained through the standard-setting process. However, in breach of its binding obligations, IDC has refused to license its SEPs on FRAND terms and conditions to Plaintiffs. Instead, IDC seeks to exploit the market power it has gained as a result of the alleged incorporation of its patents into the Cellular Standards to attempt to extract supra-competitive, non-FRAND royalties from Plaintiffs.

70. IDC's licensing offers to Plaintiffs have violated IDC's commitments to ETSI and are inconsistent with FRAND principles. IDC has conducted negotiations in a bad faith attempt to exploit its monopoly power to maximize the hold-up value it can extract from Plaintiffs. Through its discriminatory conduct, IDC has attempted to distort competition in the markets for devices that include compatibility with the Cellular Standards, favoring those entities with larger market shares and greater negotiating power.

IDC's Demands For Supra-Competitive Royalties And Terms

71. IDC refuses to make a license to its SEPs available to Plaintiffs and other implementers of the Cellular Standards on FRAND terms. Instead, IDC insists that it is entitled to recover an unlawful premium on its alleged SEPs over and above any value that those patents may have had prior to and independent of inclusion in the Cellular Standards.

72. Further, IDC ties its supra-competitive royalty demands to the value of the entire cellular devices—typically as an arbitrary percentage of the overall price of the cellular

devices without regard to the actual origin of value in such devices. These cellular devices offer countless features unrelated to the Cellular Standards and the component chips that implement the Cellular Standards. The chip components sell for, at most, tens of dollars, whereas the cellular devices typically sell for hundreds of dollars, reflecting value completely unrelated to the value of the Cellular Standards or to the value of any SEP prior to inclusion in the Cellular Standards.

73. That IDC's royalty demands exceed the requirements of FRAND is also reflected by the aggregate royalty for implementing the Cellular Standards that would result from their acceptance. Hundreds of other entities own thousands of patents that have also been declared essential to the Cellular Standards. No entity could realistically implement the Cellular Standards if subjected to licensing demands from all SEP holders on the scale of IDC's demands. Moreover, IDC's creation of new licensing entities and assignment of selected SEPs to those entities or selling portions of its portfolio—without reducing its royalty demands—has compounded this royalty stacking effect. IDC's licensing conduct has thus subjected the Relevant Technology Markets to patent hold-up.

74. IDC has likewise attempted improperly to expand the geographic impact of its declared-essential patents by leveraging its U.S. SEPs. IDC refuses to license any of its SEPs unless Plaintiffs agree to pay royalties on worldwide sales, regardless of the actual geographic footprint and legal scope or value of IDC's SEP portfolio outside the U.S. relative to Plaintiffs' actual geographic manufacturing and sales footprint.

75. IDC also seeks to extract royalties from Plaintiffs for alleged SEPs that are now or will be expired well within the period of any license. Despite this, IDC does not account for even the rolling expiration of its SEPs in its royalty rate proposals. IDC's conduct in this

regard does not comply with its obligation to license each of its SEPs on FRAND terms and conditions.

76. IDC has also abused its monopoly power in pricing its SEPs in a manner that unfairly discriminates against Plaintiffs and other newer and/or lower-volume entrants in the cellular device industry. IDC's practice of awarding volume discounts to high-volume implementers has the effect of raising costs to newer and/or lower-volume cellular device suppliers, thereby adversely affecting competition in downstream markets for cellular devices and harming nascent competition.

**IDC's Creation Of Additional Licensing Entities To Extract Higher
And Discriminatory Royalties**

77. In October 2013, in the midst of negotiations with Plaintiffs, IDC arbitrarily transferred hundreds of its patents to a newly created licensing entity, called the Signal Trust for Wireless Innovation ("Signal Trust"), for the specific purpose of enforcing those patents against implementers of the Cellular Standards, including Plaintiffs. Thereafter, Signal Trust demanded that Plaintiffs license the spun-off patents separately and for additional amounts. On information and belief, IDC is the primary beneficiary of any licensing revenues secured by Signal Trust.

78. Despite transferring a significant portion of its patent portfolio to Signal Trust, IDC did not adjust its licensing demands to Plaintiffs to account for the fact that Plaintiffs now were allegedly required to enter into a separate license with Signal Trust, and that IDC's portfolio had necessarily been reduced in size by virtue of the assignment. Further, IDC's transfer of a portion of its patent portfolio to Signal Trust compounded the imposition of transaction costs on would-be licensees such as Plaintiffs.

79. On information and belief, IDC had previously licensed Plaintiffs' competitors to its combined portfolio without requiring additional and separate royalties for rights to the patents transferred to Signal Trust. In this manner, IDC has discriminated against Plaintiffs to the advantage of Plaintiffs' competitors and weakened Plaintiffs' ability to compete in the sale of cellular devices.

**IDC Conditions Negotiations for Licenses to Its SEPs on Secrecy To Hide Its
Discriminatory Royalty Demands.**

80. IDC shrouds its licensing negotiations and license agreements with a veil of secrecy, refusing to discuss licensing terms for its SEP portfolio unless the standard-implementing, would-be licensee agrees to keep all communications secret. If the standard-implementing party will not agree to keep secret IDC's licensing proposals, IDC refuses to make licenses to its SEPs available. During negotiations, IDC correspondingly refuses to disclose the terms on which it has made its SEPs available to the competitors of would-be licensees, such as Plaintiffs, insisting that its non-disclosure agreements and confidentiality provisions within the licenses themselves prevent that information from being made available.

81. IDC requires secrecy with the purpose and effect of furthering its strategy of patent hold-up and discrimination. Secrecy enables IDC to extract supra-competitive royalties, engage in discriminatory licensing, and to further abuse its monopoly power. Transparency in licensing of SEPs would, in contrast, enable prospective licensees to assess more effectively the value of IDC's portfolio, as well as expose IDC's non-compliance with its FRAND commitments and its pattern and practice of violating its FRAND licensing obligations.

82. On information and belief, and based on public information, IDC has discriminated against Plaintiffs in its licensing demands. To access its alleged SEP portfolio, IDC demands that Plaintiffs pay significantly higher rates than its primary competitors, including,

among others, Apple, Inc. (“Apple”) and Samsung Electronics Co., Ltd. (“Samsung”). During negotiations, IDC refused to provide Plaintiffs with the royalty proposals IDC had made to other standard-implementing companies, including Apple and Samsung, nor would it agree to disclose the license terms it has agreed to with other such companies so that Plaintiffs can confirm that they have received non-discriminatory terms and conditions.

83. On information and belief, and based on public information, the royalty rates at which IDC has proposed to license Plaintiffs and its affiliates have been greater on a per unit basis than the royalties paid by Apple despite the average sales price (“ASP”) of Apple’s cellular devices being over 3 times higher than the ASP of Plaintiffs’ cellular devices. Likewise, on information and belief, and based on public information, the royalties IDC has proposed to license Plaintiffs and its affiliates have been at least 2.5 times greater on a per unit basis than the royalties paid by Samsung, despite Samsung’s cellular devices having a higher ASP than Plaintiffs’ cellular devices

84. On information and belief, IDC has required all other actual and would-be licensees to its alleged SEP portfolio to agree to similar requirements of secrecy as a precondition for any licenses, licensing proposals, and related discussions. As such, IDC uses the shroud of secrecy over its licensing proposals and discussions to unlawfully charge supra-FRAND royalties and distort competition.

IDC’s Strategy To Enforce Its Monopolistic Licensing Demands.

85. IDC supports its hold-up and discrimination against implementers of the Cellular Standards, like Plaintiffs, by threatening them with injunctions and other coercive orders. IDC’s latest strategy is to threaten Plaintiffs with injunctions barring Plaintiffs’ affiliates from selling cellular-enabled, standard-compliant products in the United Kingdom based on infringement of no more than a handful of alleged Cellular SEPs in the United Kingdom unless

Plaintiffs acquiesce to permit courts in the United Kingdom to determine the royalty rate Plaintiffs and their affiliates must pay on all worldwide sales, without regard to any actual infringement of any other of IDC's alleged thousands of Cellular SEPs, the overwhelming majority of which are not UK patents and which the UK court is not being asked to evaluate.

86. In particular, on August 27, 2019, IDC brought an action in the High Court of Justice – Business and Property Courts of England and Wales accusing Plaintiffs, Lenovo Group Limited, Lenovo Technology (United Kingdom) Limited, and Motorola Mobility UK Limited of infringement of four UK patents that IDC claims are essential to either the 3G or 4G standards. (IDC has since sought to add one additional patent to this UK suit.) Among other forms of requested relief, IDC has asked the UK court to enjoin the sale in the UK of any products found to be infringing unless Plaintiffs (and their affiliates) agreed to enter a portfolio license requiring payment of royalties on a worldwide basis on terms to be determined by the UK court.

87. In effect, IDC seeks to recover royalties on Plaintiffs and their affiliates' worldwide sales based on the infringement of as few as one, and no more than five, UK patents.

88. Because the UK court is not positioned to evaluate the validity and essentiality of the overwhelming majority of IDC's declared SEP portfolio, which consists of thousands of non-UK patents (including up to 4,400 US patents) and dozens of UK patents that IDC has not asserted, IDC transparently seeks to have the UK court rely primarily on IDC's misleadingly inflated count of declared SEPs to award IDC royalties on a global basis that it could not possibly obtain if it were properly limited to the royalties reflecting the valid and essential SEPs, if any, that it may have in each country in which Plaintiffs and their affiliates sell cellular-enabled products.

89. The next day, on August 28, 2019, IDC brought an action in this District alleging that Plaintiffs (and their affiliate, Lenovo Holding Company, Inc.) infringe eight U.S. patents that IDC claims are essential to the Cellular Standards. In that action, IDC seeks an injunction against, among other things, Plaintiffs' sale or importation of any products found to be infringing unless Plaintiffs: (i) acquiesce to IDC's non-FRAND licensing demands; (ii) agree to engage in binding private arbitration over the terms and conditions of worldwide patent license; or (iii) agree to accept the UK court's determination of the terms of a worldwide FRAND license, as described above.

90. Beyond depriving Plaintiffs of their due process rights, the nature of the arbitration that IDC seeks to coerce Plaintiffs into accepting is inherently biased toward achieving a non-FRAND result while also continuing to maintain a shroud of secrecy over IDC's abusive licensing behavior. Given that private arbitrators have no more ability to evaluate the validity and essentiality of the thousands of alleged SEPs in IDC's global portfolio than the UK court does, IDC's efforts to coerce Plaintiffs into arbitration is merely another means by which it seeks to take advantage of secrecy and its inflated counts of declared SEPs to extract non-FRAND royalties unsupported by the actual value of its global SEP portfolio.

91. By seeking to leverage findings of infringement of as few as one and no more than a handful of UK or U.S. patents to coerce Plaintiffs to pay royalties on sales on a worldwide basis, even in countries where IDC has few (if any) patents, IDC is seeking improperly to expand the geographic scope of its U.S. and UK patents and to tie a license to those asserted patents to patents in other jurisdictions that could be licensed or enforced separately.

92. The ongoing threats, costs, and significant interference with Plaintiffs' ongoing efforts to grow their cellular device market share caused by IDC's failure to offer a license to the alleged SEPs on FRAND terms are intended to force Plaintiffs to capitulate to the other abusive and anticompetitive aspects of IDC's licensing demands. In addition, the threat of injunctions, however remote, puts at risk the entire revenue and investment for all of the technology used in Plaintiffs' cellular devices, not just the proportion that allegedly uses IDC's SEPs. The magnitude of the potential lost investment and revenue flowing from an injunction is so high that would-be licensees in Plaintiffs' position can be strong-armed into submitting to IDC's excessive and discriminatory demands. Any loss of goodwill and reputation would be irreparable.

**Harm To Plaintiffs And To Competition In The
Relevant Technology Markets**

93. IDC's conduct has breached its FRAND Licensing obligations to ETSI and more generally has harmed competition in the Relevant Technology Markets. IDC's deceptive promises to ETSI during the process of adopting the Cellular Standards excluded alternative cellular technologies and/or caused technology to be standardized where a truthful declaration would not. IDC's deception in the standard-setting process also harmed competition by obscuring the costs of including its patented technologies in the Cellular Standards, thereby increasing the likelihood that its patent rights would be included and conferring monopoly power on IDC. IDC's wrongful conduct in conjunction with ETSI standard-setting prevented Plaintiffs from obtaining access to necessary technology in the Relevant Technology Markets on FRAND terms.

94. As a consequence of IDC's unlawful monopolization, customers in the Relevant Technology Markets, such as Plaintiffs, face higher costs for access to cellular

technologies necessary for the manufacture of standard-compliant products than they would have paid in a competitive market.

95. Further, as a consequence of IDC's transfer of patents to Signal Trust, Plaintiffs face inherently discriminatory royalty demands for access to IDC's SEPs at least vis-à-vis those licensors that received a license prior to the transfer. Standing alone, IDC's transfer of patents necessarily added to the cost for access to the cellular technologies allegedly necessary for the manufacture of standard-compliant products even beyond that which Plaintiffs would have paid in a competitive market, harming Plaintiffs' ability to compete in the sale of cellular devices.

96. The antitrust injury associated with IDC's unlawful monopolization of the Relevant Technology Markets also extends to consumers in the downstream market for cellular devices, in the form of higher prices, reduced innovation, and more limited choice for such standard-compliant products. Raising costs to some competing manufacturers in the cellular device marketplace and diverting resources and monies that otherwise would have fueled additional innovation in cellular devices necessarily limits consumer choices in complementary cellular technologies and other technology used in cellular devices.

97. IDC has leverage over manufacturers of standard-compliant products that it would not possess but for its agreements with the other members of 3GPP and ETSI, its false promises to license on FRAND terms, and its unlawful acquisition of monopoly power in the Relevant Technology Markets. Because of such leverage, manufacturers of standard-compliant products, including Plaintiffs, must either capitulate to IDC's supra-competitive licensing demands or face the costs and risks of protracted patent litigation. The antitrust injury attributable to IDC's overall anticompetitive scheme—including IDC's breach of its FRAND

obligations—thus includes the litigation fees and costs necessary to avoid the payment of supra-competitive licensing terms and exclusion from the marketplace for Cellular Standard-compliant products.

98. In the case of Plaintiffs, the costs of the U.S. and UK proceedings brought by IDC have been and will be substantial, and have represented (and until resolved, will continue to represent) an additional cost to Plaintiffs' cellular device business. In addition to subjecting Plaintiffs to potentially millions of dollars in attorneys' fees and other costs of litigation, including discovery burdens imposed on Plaintiffs' partners and customers, the risk of an injunction creates uncertainty as to Plaintiffs' line of cellular devices. IDC's litigation tactics thus not only cause Plaintiffs antitrust injury at least in the form of the substantial costs of litigation, but they also threaten to erode customer loyalty, brand recognition, and customer goodwill for Plaintiffs' cellular devices. Increased costs for Plaintiffs harm Plaintiffs' sales, and harm to Plaintiffs' sales harms competition in the market for cellular devices.

99. In the absence of the injunctive relief requested herein, there is a substantial threat that Plaintiffs will be forced to capitulate to IDC's supra-competitive licensing demands. The artificial imposition of higher costs on Plaintiffs threatens further loss of market share, as does the threat of injunctive relief in the U.S. and UK. Whichever way IDC exploits its unlawfully-acquired monopoly power, the harm to Plaintiffs is both imminent and irreparable, because market share in the sale of cellular devices once lost may never be recovered.

COUNT I

Contract, Combination, or Conspiracy In Restraint of Trade in Violation of Section 1 of the Sherman Act

100. Plaintiffs re-allege and incorporate by reference the allegations set forth in the foregoing paragraphs.

101. The Cellular Standards that allegedly incorporate IDC's technology are the product of agreements between IDC and other members of 3GPP and ETSI that also develop, own, or control technology that can be and is incorporated into the Cellular Standards. By agreeing with other members of 3GPP and ETSI that own technology that is incorporated into the Cellular Standards, IDC and those members of 3GPP and ETSI dictate the technology that will—and will not—be made available to consumers. There are no alternatives to the current Cellular Standards, and therefore no alternatives to the technologies that are specified in those standards. By entering into such agreements with other technology holders, but evading the restraints on its collectively conferred market power (i.e., the FRAND licensing commitment), IDC has entered into a contract, combination, or conspiracy that unreasonably restrains trade in the Relevant Technology Markets.

102. Although standard-setting may sometimes be viewed as providing pro-competitive benefits, any such benefits can be realized only where safeguards exist that ensure that the standard-setting process is fair and that, when the standards are created by virtually the entire industry and themselves become dominant and not constrained by alternative standards—as the Cellular Standards at issue here—access to technologies specified in the standards on reasonable and non-discriminatory terms is ensured. In effect, the market power that SSO participants endow upon themselves through industry-wide standard setting must be surrendered through reasonable and non-discriminatory licensing practices.

103. In the case of the Cellular Standards, the obligation to license the technology specified in the standards to implementers on FRAND terms is an indispensable safeguard to ensure that the members of 3GPP and ETSI do not abuse the market power they have collectively conferred upon one another through their collective action.

104. IDC has disregarded and failed to abide by the FRAND obligations placed upon it by virtue of its participating in the development of the Cellular Standards and its licensing commitments.

105. By disregarding its FRAND licensing obligations, which are intended to serve as a vital safeguard ensuring the lawfulness of the agreements in restraint of trade that are at the heart of the Cellular Standards, IDC has unreasonably restrained competition in the Relevant Technology Markets by: (1) eliminating access to alternatives to the IDC technology in the Relevant Technology Markets; (2) imposing supra-FRAND costs on purchasers in the Relevant Technology Markets like Plaintiffs; and (3) distorting competition in downstream markets by imposing discriminatory royalties favoring licensees with large sales over those with smaller sales without justification.

106. IDC has monopoly power in the Relevant Technology Markets because it is the only seller, it has the power to charge supra competitive prices, and there are insurmountable barriers to entry into those markets.

107. There are no pro-competitive benefits of IDC's agreement with the other members of 3GPP and ETSI to incorporate IDC's technology into the Cellular Standards over other alternatives that could have been incorporated to perform the same functions. Even if there were any such pro-competitive benefits, they would be substantially offset by the harms to competition resulting from IDC's disregard of its FRAND licensing obligations.

108. Absent the injunctive relief requested herein, and as a direct and proximate results of IDC's unlawful agreement with its competitors, Plaintiffs have suffered, or imminently will suffer, irreparable injury to their business and property and are threatened with additional

harm in the form of the loss of customers and potential customers, the loss of product image and goodwill, and other irreparable harm to their lines of cellular-enabled devices.

109. In addition to the harm to Plaintiffs, consumers of cellular devices are injured and threatened with further injury from IDC's illegal agreement in restraint of trade because it will have the effect of raising the cost of access to all products that implement the Cellular Standards and distorting competition in the Relevant Technology Markets. This unlawful tax on standard-compliant products reduces output and retards innovation.

COUNT II
Monopolization in Violation of Section 2 of the Sherman Act

110. Plaintiffs re-allege and incorporate by reference the allegations set forth in the foregoing paragraphs.

111. By its acts, practices and conduct, including, without limitation, (i) its agreements with its competitors to have technology over which IDC claims to have patents incorporated in the Cellular Standards in the standard-setting process, and (ii) its false and misleading—or, in the alternative, ineffective—IPR Declarations and commitments that it would license its SEPs on FRAND terms, IDC has unlawfully monopolized each of the Relevant Technology Markets.

112. In undertaking these acts, practices, and conduct, IDC acted with the specific intent to monopolize the Relevant Technology Markets because its business model depends on licensing its technology, which in turn depends critically upon IDC's ability to claim that its technology is embedded in the Cellular Standards.

113. IDC has monopoly power in the Relevant Technology Markets. It is the sole supplier in those markets, has excluded all competition, and has the power to charge supra-competitive prices.

114. As a direct and proximate result of IDC's unlawful monopolization, Plaintiffs have suffered irreparable injury to their business and property and are threatened with additional harm in the form of the loss of customers and potential customers, the loss of product image and goodwill, and other irreparable harm to their line of cellular devices.

115. IDC's actions injure competition by excluding alternate technologies that could have been included in the standard. As a direct and proximate consequence of IDC's unlawful monopolization, customers of the Relevant Technology Markets (implementers of the standards such as Plaintiffs) face higher costs for access to cellular technologies necessary for the manufacture of standard-compliant products than they would have paid in a competitive marketplace.

116. IDC's wrongful conduct prevents Plaintiffs from obtaining access to alternative technologies in the Relevant Technology Markets. The antitrust injury associated with IDC's unlawful monopolization also extends to the downstream market, for example, by reducing innovation, increasing prices, and limiting choices for standard-compliant products. Indeed, the necessary result of raising costs to some competing manufacturers in the marketplace for standard-compliant products and diverting resources that otherwise would have fueled additional innovation is to limit consumer choices in complementary technologies and other technology used in standard-compliant products.

117. Absent IDC's wrongful conduct, which resulted in alternate technologies being excluded from the Cellular Standards and/or the standardization of technology that otherwise would not have been standardized, Plaintiffs would be able to obtain a license to access necessary technology in the Relevant Technology Markets on FRAND terms and/or would not have needed a license.

118. Therefore, to prevent harm to Plaintiffs' business and property, including its cellular devices, and further harm to competition more generally in the Relevant Technology Markets, Plaintiffs bring this action for declaratory and injunctive relief under Section 16 of the Clayton Act, 15 U.S.C. § 26.

COUNT III
Breach of Contract

119. Plaintiffs re-allege and incorporate by reference the allegations set forth in the foregoing paragraphs.

120. IDC entered into, or is bound by, contractual commitments made to ETSI and its respective members, participants, and implementers relating to the Cellular Standards. To comply with the IPR Policies of ETSI, IDC either made or is encumbered by a binding obligation to ETSI, its members, and third-party implementers to grant irrevocable licenses on FRAND terms and conditions to all such users of the Cellular Standards purportedly covered by IDC's alleged SEPs.

121. The declarations made pursuant to such IPR Policies created an express and/or implied contract with ETSI and its members, including an agreement that IDC would license its SEPs on FRAND terms and conditions. The IPR Policies of ETSI do not limit the right to obtain a license on FRAND terms and conditions to their members; third parties that are not members also have the right to be granted licenses under those patents on FRAND terms and conditions. Each and every manufacturer of products that implement the Cellular Standards is therefore an intended third-party beneficiary of IDC's contractual commitments, including Plaintiffs, their suppliers, and their customers.

122. Despite Plaintiffs' repeated offers to pay tens of millions of dollars and good faith efforts to negotiate a license to IDC's alleged SEPs, IDC has refused to offer Plaintiffs terms for a license to IDC's SEPs that comply with IDC's FRAND licensing obligations.

123. Therefore, IDC has breached its obligations to ETSI by failing and refusing to offer a license to IDC's alleged SEPs on FRAND terms and conditions. This constitutes a breach of IDC's FRAND obligations, of which Plaintiffs are intended third-party beneficiaries.

124. As a result of IDC's contractual breaches, Plaintiffs have been injured in their business or property and are threatened by imminent loss of profits, loss of customers and potential customers, the imposition of non-FRAND terms and conditions, and loss of goodwill and product image.

125. Plaintiffs have suffered and will continue to suffer irreparable injury by reason of the acts, practices, and conduct of IDC alleged above until and unless the Court enjoins such acts, practices, and conduct by ordering IDC to offer Plaintiffs a license on FRAND terms and conditions.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for relief as follows:

- A. Adjudge and decree that IDC has violated Section 1 of the Sherman Act and enjoin IDC from further violations of that statute;
- B. Adjudge and decree that IDC has violated Section 2 of the Sherman Act and enjoin IDC from further violations of that statute;

- C. Adjudge and decree that IDC is liable for breach of its contractual commitments to ETSI by failing to offer Plaintiffs FRAND terms and conditions for a license to IDC's 3G and 4G SEPs;
- D. Adjudge and decree that Plaintiffs are entitled to a license from IDC for any and all patents IDC deems "essential" and/or has declared "essential" to the 3G and 4G Cellular Standards under FRAND terms and conditions;
- E. Enjoin IDC from demanding excessive royalties and/or other terms from Plaintiffs and their customers that are not consistent with IDC's FRAND obligations;
- F. Enjoin IDC from enforcing their alleged 3G and 4G U.S. SEPs against Plaintiffs and their customers via patent infringement lawsuits or other proceedings;
- G. Enter judgment awarding Plaintiffs their expenses, costs, and attorneys' fees under applicable laws;
- H. Award Plaintiffs pre-judgment and post-judgment interest to the full extent allowed under the law, as well as their costs; and
- I. For such other and further relief as the Court deems just and proper.

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April 9, 2020