Exhibit 1

Ryan W. Koppelman
CA Bar No. 290704
ryan.koppelman@alston.com
ALSTON & BIRD LLP
1950 University Avenue
5th Floor
East Palo Alto, CA 94303-2282
Phone: 650.838.2000
Fax: 650.838.2001

ATTORNEY FOR *AMICUS CURIAE* NOKIA TECHNOLOGIES OY

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

FEDERAL TRADE COMMISSION,

Plaintiff,

v.

QUALCOMM INCORPORATED, a Delaware corporation,

Defendant.

Case No. 5:17-cv-00220-LHK-NMC

BRIEF OF NOKIA TECHNOLOGIES OY *AMICUS CURIAE* IN SUPPORT OF DEFENDANT QUALCOMM INCORPORATED'S OPPOSITION TO MOTION FOR PARTIAL SUMMARY JUDGMENT

Date: October 18, 2018
Time: 1:30 PM
Location: San Jose Courthouse, Courtroom 8
Judge: Hon. Lucy H. Koh

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STATEMENT OF IDENTITY AND INTEREST OF *AMICUS CURIAE*

Amicus curiae is Nokia Technologies Oy.[1] Nokia[2] is a leading innovator in the telecommunications industry. Nokia has cumulatively invested approximately $140 billion in research and development relating to mobile communications over the past two decades, and as a result of this commitment, currently owns over 20,000 patent families. Nokia has also played a prominent role in developing technologies that are incorporated in the 2G, 3G, and 4G mobile cellular standards that have been vital to the success of the global mobile telecoms market. Nokia is a significant owner of cellular standards essential patents ("SEPs"), and has a significant number of licensees to those cellular SEPs. Nokia remains at the forefront of developing cellular technologies, including in emerging 5G standards, and continues to contribute technologies covered by its patented inventions as well as to renew its industry-leading patent portfolio.

Nokia also has been for many years and continues to be one of the largest manufacturers of wireless, fixed, and optical telecommunications network equipment, and continues to invest heavily in related research and development, including over $5.5 billion in 2017. As part of its ongoing businesses, which employ over 100,000 and operate in around 130 countries, Nokia has also negotiated and secured licenses to cellular SEPs owned by other industry players.

Nokia has been involved in numerous patent cases in U.S. district courts, both as a plaintiff and a defendant, including cases involving SEPs.

PRELIMINARY STATEMENT

Nokia's interest in this case is to advocate for consistent (F)RAND license obligations across 3GPP's and 3GPP2's various Organizational Partners around the world such as the Alliance

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[1] No counsel for any of the parties authored any portion of this brief. No entity other than *amicus curiae* Nokia Technologies Oy monetarily contributed to the preparation or submission of this brief.

[2] References to Nokia in this section include Nokia Technologies Oy and its parent, Nokia Oy, and its affiliates.

for Telecommunications Industry Solutions ("ATIS") standards, the Telecommunications Industry Association ("TIA") standards, and the European Telecommunications Standards Institute ("ETSI") standards. Nokia is concerned about arguments being made now that the ATIS and TIA IPR Policies have always unambiguously required SEP owners to license their SEPs at the component level. Though Nokia primarily declares its patents through ETSI, Nokia has never understood any Organizational Partner's IPR Policy to require licensing of SEPs at the component level for 3GPP and 3GPP2 standards. The FTC's argument to the contrary contravenes industry norms and, if adopted by this Court, could lead to the ATIS and TIA IPR Policies being incompatible with the ETSI IPR Policy. Additionally, for international standards used globally, like the 3GPP and 3GPP2 standards that govern cellular telecommunications, consistency of (F)RAND license obligations across Organizational Partners is necessary so that SEP owners and implementers do not potentially face a patchwork of differing obligations and practices across different jurisdictions.

With regard to the issues raised in the FTC's pending Motion for Partial Summary Judgment, Nokia's understanding has been from the beginning that the various Organizational Partners' IPR Policies do not require SEP owners to license cellular SEPs at the component level. Based on experience in the industry, Nokia believes that its understanding in this regard is consistent with the decisive ETSI IPR Policy as well as long-standing industry practice, and Nokia has never understood any 3GPP or 3GPP2 Organizational Partner's IPR Policy to mandate licensing of cellular SEPs at the component level.

Nokia does not take any ultimate position on the facts of this specific case, which may be unique to Qualcomm, but instead simply provides this *amicus* to give the Court perspective on the novel and very surprising interpretations of the ATIS and TIA IPR Policies being put forward in the FTC's Motion for Partial Summary Judgment, especially if those novel and surprising

interpretations are somehow later applied in a manner creating unintended consequences for other SEP holders and the industry at large.

ARGUMENT

I. The Industry Has Not Viewed the 3GPP and 3GPP2 IPR Policies to Require Licensing at the Component Level.

A. The ETSI IPR Policy Does Not Mandate Licensing at the Component Level.

Nokia has heavily participated in 3GPP through its European Organizational Partner—ETSI. Based on the language of the ETSI IPR Policy, and also the expectations of participants and sound economic principles, the prevailing view at ETSI from the creation of its IPR Policy has been that licensing of cellular SEPs would occur at the end user product level, rather than, for example, at the component level. This view has been expressed by Nokia in response to a Civil Investigative Demand that Nokia received from the FTC prior to the institution of this litigation and in sworn testimony from a Nokia employee, Dirk Weiler, who is currently and has served for a number of years as the Chairman of the ETSI Board and ETSI IPR Special Committee (*see* Qualcomm Opp. Ex. 27 at 43:3-45:1). Importantly, Nokia's view is also consistent with the express language of the ETSI IPR Policy, which states that:

> To the extent that the IPR(s) disclosed in the attached IPR Information Statement Annex are or become, and remain ESSENTIAL in respect of the ETSI Work Item, STANDARD and/or TECHNICAL SPECIFICATION identified in the attached IPR Information Statement Annex, the Declarant and/or its AFFILIATES are (1) prepared to grant irrevocable licences under this/these IPR(s) on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy . . . .

Clause 6.1 of the ETSI IPR Policy in turn states that ETSI should seek from an IPR owner that discloses a patent to ETSI:

> an irrevocable undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory ("FRAND") terms and conditions under such IPR to at least the following extent:
>
> - MANUFACTURE, including the right to make or have made customized

components and sub-systems to the licensee's own design for use in MANUFACTURE;

- sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED;
- repair, use, or operate EQUIPMENT; and
- use METHODS.

The above undertaking may be made subject to the condition that those who seek licences agree to reciprocate.

"MANUFACTURE" is defined in the ETSI IPR Policy to mean production of EQUIPMENT.

"EQUIPMENT" is, in turn, defined in the ETSI IPR Policy to mean any system, or device ***fully conforming*** to a STANDARD.

Nokia's understanding of the ETSI IPR Policy is that the commitment to License on FRAND terms is given for the activities identified in Section 6.1 in relation to EQUIPMENT as that term is defined in the ETSI IPR Policy, and that such EQUIPMENT must be a system or device that ***fully conforms*** to a Standard. All of the licensing commitments that Nokia has provided to ETSI have been made with this understanding of the ETSI IPR Policy.

One of the requirements expressly imposed by both 3GPP and 3GPP2 on Organizational Partners that want to be involved in 3GPP and 3GPP2 standardization is that each Organizational Partner must have "an . . . IPR Policy which is compatible with those of the Organizational Partners." The ATIS IPR Policy states that licenses must be made available "for the purpose of implementing the [relevant ATIS] standard" and the TIA IPR Policy states that licenses must be made available "to the extent necessary for the practice of the TIA publication" (FTC Ex. 2 at 10 (ATIS Operating Procedures); (FTC Ex. 39 at 87 (2002 TIA Eng'g Manual)).[3] Since the IPR policies of ATIS and TIA must be compatible with the ETSI IPR Policy, they should not be

[3] The TIA IPR Policy was amended in 2005, but the changes are not relevant to the considerations set forth within this *amicus curiae* brief (*see* Dkt. No. 872-3 at 5).

interpreted to impose materially different obligations.[4]

Nokia is not aware of prior positions being taken over the years that the IPR Policies of ATIS or TIA are incompatible or materially different than ETSI IPR's Policy, under which licensing at the end user product level (rather than at the component level) has been the longstanding expectation and industry norm. The argument being made now that the ATIS and TIA IPR policies unambiguously impose an incompatible requirement to license at the component level is, therefore, novel. This situation is different from the relatively recent changes made to the IEEE's IPR Policy, which, as amended, imposed new constraints on how SEP owners in that context would be required to license their SEPs under the RAND commitments made to IEEE, including a requirement to license at the component level. Although IEEE is not a 3GPP or 3GPP2 Organizational Partner, given IEEE's collaboration and overlapping work with ETSI at that time, ETSI deliberated about the impact of the changes made to IEEE's IPR Policy and, thereafter, expressly concluded that IEEE's IPR Policy as amended was incompatible with ETSI's IPR Policy (Qualcomm Opp. Ex. 27 at 93:4-94:11, 103:16-105:18). However, no similar express changes have been made to the ATIS or TIA IPR Policies.

B. The Industry Practice Has Been to License at the End User Product Level.

In addition to running afoul of the actual text of the relevant IPR policies, any suggestion that licensing for cellular SEPs must occur at the component level is inconsistent with longstanding industry practice.[5] The consistent course of conduct of the industry, including Nokia

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[4] Nokia agrees with the positions set forth in Qualcomm's Opposition regarding the textual interpretation of the ATIS and TIA IPR Policies (*see id*. 872-3 at 4-5).

[5] *See, e.g.*, *In re Certain Electronics Devices, Commission Opinion*, Inv. No. 337-TA-794, at n. 19 (Int'l Trade Commission July 5, 2013) ("[T]he record supports a conclusion that a common industry practice is to use the end user device as a royalty base."); *Unwired Planet Int'l Ltd. v. Huawei Techs. Co.*, [2017] EWHC 711 (Pat.) (May 4, 2017) ("The royalty base is the sum to which the percentage is applied to give the royalty due. It will largely correspond to the price paid for

(as both licensor and licensee), since adoption of the ETSI IPR Policy has been to license at the end user product level. In Nokia's view, as expressed to the FTC during its initial investigation, licensing at the end user product level is the most efficient manner in which to license cellular SEPs, and as a result, has been and continues to be common industry practice. It is the level chosen by SEP holders and patent pools alike. And the industry has long recognized that licensing

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goods and the definition is largely agreed in the draft contract as something called 'Selling Price' for 'End User Devices' (i.e. handsets) and 'Infrastructure Revenue' for infrastructure."); *Ericsson, Inc. v. D-Link, Sys., Inc.*, 773 F.3d 1201, 1227 (Fed. Cir. 2014) (discussing licenses in which royalties were based on the price of the end user product rather than the price of a component); Jonathan D. Putnam & Tim A. Williams, *The Smallest Salable Patent-Practicing Unit (SSPPU): Theory and Evidence* 35 (2016) (concluding, based on publicly available information regarding more than two dozen licenses, that in the "vast majority of cases, we can rule out the use of a component or combination of components as the metering device; in no case can we confirm such use."); David Teece & E.F. Sherry, *On the "Smallest Saleable Patent Practicing Unit" Doctrine: An Economic and Public Policy Analysis* (2016) ("In the cellular communications industry, it is common practice to license at the device level (cellphones and base stations), rather than at either the chipset or cellular service provider levels."); Keith Mallinson, *Busting Smartphone Patent Licensing Myths*, CENTER FOR THE PROTECTION OF INTELLECTUAL PROPERTY, GEORGE MASON UNIVERSITY SCHOOL OF LAW 4 (September 2015) ("Virtually every IP rightholder in the cellular communications industry that publicly reveals information about its licensing requirements, including EU companies (Alcatel-Lucent, Ericsson, Nokia, Siemens), North American companies (InterDigital, Motorola, Nortel, Qualcomm), and Chinese companies (Huawei, ZTE), has publicly stated in recent years that its mobile standard-essential patent (SEP) licensing rates are based on a percentage of the entire handset price, as illustrated with LTE. Samsung, the largest company in South Korea, justified a licensing offer for its 3G standard-essential patents in recent litigation with Apple in the U.S. International Trade Commission on the basis that royalties calculated on the price of the end user product are consistent with industry practice. Licensing on this basis is a long-standing practice and was widely recognized since the introduction of 2G GSM, as noted by the International Telecommunications Standards User Group in 1998 and in 2G and 3G standards by several other observers including PA Consulting Group (2005), Credit Suisse First Boston (2005), and ABI Research (2007). European antitrust authorities and the U.S. courts also endorse this approach. The Chinese courts used this royalty base for determining a royalty rate in the Huawei-InterDigital case."); Erik Stasik, *Royalty Rates and Licensing Strategies for Essential Patents on LTE (4G) Telecommunications Standards,* LES NOUVELLES 114-119 (September 2010) (finding that every publicly announced 4G licensing rate was expressed as a percentage of the sales price of the end user product, including rates announced by Huawei, Ericsson, and Nokia); *see also* Devlin Hartline, *Letter to Antitrust Chief Applauds DOJ's New Evidence-Based Approach to IP Enforcement*, CENTER FOR THE PROTECTION OF INTELLECTUAL PROPERTY, GEORGE MASON UNIVERSITY SCHOOL OF LAW (Feb. 13, 2018), *available at* https://cpip.gmu.edu/2018/02/13/letter-to-antitrust-chief-applauds-dojs-new-evidence-based-approach-to-ip-enforcement/.

should occur at the end user product level. For example, the UMTS IPR Association, with over 40 industry participants, expressed its view on the topic in 2000:

> The royalty "collection point" shall be the last manufacturer in the manufacturing "chain." This means that chip and subsystem manufacturers shall be indemnified for sales made to Licensees of certified Essential Patents who are the last manufacturers in the "chain." Licensees shall not include those manufacturers of component products which are incorporated into final assembled products for which royalties are paid to their respective Licensor(s).[6]

Concluding a single license with one company at the end user product level, allows SEP holders like Nokia to avoid the transaction costs and complexities involved in negotiating and executing multiple licenses at multiple points in the supply chain. The end user product approach also speeds up the entire supply chain's access to the licensed SEPs.[7] It also provides visibility to what products are licensed and avoids potentially overlapping and duplicative licensing at different levels of the supply chain. Additionally, end user product licensing avoids complications that may arise with respect to patent exhaustion claims. If licenses were now to be required at the component level under the ATIS and TIA IPR Policies, potential or existing licensees of relevant SEPs under those policies could argue in license negotiations that certain cellular SEP owners would have to splinter their portfolios and license subsets of their relevant SEP claims to different component suppliers at each level in the value chain. And thereafter, that alleged patent exhaustion or implied rights would alleviate any need for a license to other SEP claims at their point in the value chain. Moreover, specific components may be used beyond a given standard

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[6] *3G Patent Platform for 3G Mobile Communication Systems – Definition, Function, Structure, Operation, Governance*, UMTS IPR ASSOCIATION, Section 8.2.6 (June 15, 2000), *available at* http://www.atis.org/gsc/gsc-5/ipr-03.pdf.

[7] In fact, *amici curiae* ACT | The App Association and Computer & Communications Industry Association ("ACT") acknowledge that there are important reasons to license at the end user product level (Dkt. No. 864 at 4 ("Amici recognize and respect that 'downstream' companies may, in some cases, seek to obtain their own SEP license. There can be many reasons for this, such as a preference to negotiate terms directly or to maintain an ability to use multiple suppliers regardless of their individual license status.")).

and standards development organization ("SDO") IPR Policy for which the SEP holder made a FRAND commitment (and would normally limit its license to). Under such circumstances, if the requirement were to license applicable SEP claims under a given SDO IPR Policy at the component level, then additional SEP claims may be argued to be exhausted or impliedly licensed at other points in the supply chain such as the end product level.

Accordingly, Nokia's long-standing practice in its own FRAND SEP licensing program has been and continues to be to enter into license agreements with the companies that sell the end user products, and not with the component vendors. Under this program, the entire product resulting from the supply chain is covered by the SEP license, and the component manufacturers (and other members of the chain) have access to any SEPs they might require through the "have made" rights granted to the sellers of the end user products without requiring the negotiation and transaction costs associated with separate, as well as the complexities of potentially overlapping or duplicative, licenses. This also gives the end user product manufacturer the opportunity to negotiate the licenses, along with the freedom to choose its component suppliers—rather than perhaps being tied only to certain suppliers because of an interpretation requiring certain licenses to be granted at the component level. Nokia's approach is aligned with other industry participants' practices, and in Nokia's view, is the most efficient manner of properly fulfilling the licensing commitments made to international standards development organizations to make SEPs available on FRAND terms.[8]

[8] *Amici* ACT conceded that companies licensing SEP's have "chosen to focus their licensing programs at the OEM level" (Dkt. No. 864 at 9, n. 15). ACT contends that this parol evidence is unnecessary or should be ignored but, to the contrary, this consistent industry practice demonstrated a course of conduct and is evidence of how industry players have interpreted the underlying Organizational Partners' IPR Policies.

II. Licensing Obligations Across 3GPP and 3GPP2 Organizational Partners Should Be Consistent.

A. Incompatible Licensing Obligations Would Create a Patchwork of Confusing Requirements.

As noted above, 3GPP and 3GPP2 are collaborative partnerships of Organizational Partner standards development organizations, including ATIS and TIA, which involve market participants across the world. ATIS is the U.S. partner for 3GPP, and TIA is the U.S. partner for 3GPP2. The goal of these international partnerships is to develop technical specifications that can be used around the world in the global economy. These international standards, once established, are then adopted in various countries and regions around the world by the respective Organizational Partners, like ATIS and TIA, and each Organizational Partner adopts an IPR Policy governing (F)RAND licensing commitments which are mandated to be consistent by 3GPP and 3GPP2.[9]

Divergent interpretations of the ATIS and TIA IPR Policies on one hand, and the ETSI IPR Policy on the other, would result in conflicting license obligations across various jurisdictions, and even among SEP owners depending on the member organizations through which they have participated in 3GPP and 3GPP2. To be sure, the supply chain for products implementing cellular standards, along with end user sales, reaches across many jurisdictions, and SEP holders are located all over the world. If there are inconsistent interpretations of licensing obligations vis-à-vis components versus end user products, which vary based upon the governing Organizational Partner's IPR Policy and the specific jurisdiction, the end result will, at a minimum, be wide scale confusion, higher transaction costs, and uncertainty.[10] And these kinds of results can produce

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[9] To the extent consistency is required, the FTC does not appear to view the ATIS and TIA IPR Policies as consistent with the ETSI IPR Policy, as the FTC has not moved on the basis that the ETSI IPR Policy unambiguously requires component-level licensing.

[10] In its November 2017 guidelines on SEP licensing, the European Commission expressly recognized the potential value and efficiencies in global, portfolio licensing of SEPs, which of course would require consistent obligations across jurisdictions for a given standard (*see*

lower participation in standards-related activities, fewer licensing commitments, and slower work streams for standards development and standards implementation worldwide, especially for new and complex technologies. Maintaining consistency across interpretations, in contrast, incentivizes contributions and continued development of standardized technologies, reduction in transaction costs, and fewer potential disputes over claims of patent exhaustion or implied rights, as well as prevents confusion for both licensors and licensees (Nokia, of course, being both).

III. SEP Licensing in the Telecommunications Industry Has Led to Tremendous Success with New Entrants and Huge Benefits for Consumers.

In its current form, SEP licensing in the wireless telecommunications industry has been highly successful. There are numerous examples of new implementers having entered the marketplace, some of which have even grown to be industry leaders in a relatively short period of time. Bilateral negotiations have led to hundreds of cellular SEP licenses, resulting in widespread implementation of the cellular standards. Such implementation has also conferred great benefits on consumers across the world, who now have greater access to new technologies.

Novel interpretations of certain SDO IPR Policies that would impose specific licensing models on certain SEP owners in certain jurisdictions, however, would have the real potential to put in jeopardy the continued success of standards development and related SEP licensing. The current industry-wide approach minimizes complexities, while maintaining efficiencies. The complications that would likely arise from inconsistent licensing obligations advocated for in the FTC's Motion for Partial Summary Judgment could unravel the success of SEP licensing and standards development that have been achieved to date, rather than incentivizing continued participation in open standards-setting and development, which make innovation more widely

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Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee, *Setting out the EU Approach to Standard Essential Patents*, COM(2017) 712 (Nov. 29, 2017)).

available to consumers.

CONCLUSION

For the reasons set forth above, *amicus* urges this Court to deny the FTC's Motion for Partial Summary Judgment to the extent the Motion seeks to interpret the ATIS and TIA IPR polices as requiring licensing of cellular SEPs at the component level, rather than at the end user product level. Industry practice has never interpreted the Organizational Partners' IPR Policies—including the ATIS and TIA IPR Policies—as mandating licensing at the component level for 3GPP and 3GPP2 standards. Such an interpretation—which would render the ATIS and TIA IPR Policies inconsistent with the ETSI IPR Policy—would create significant complications for licensing standardized technologies and risk the continued success of standards development and related SEP licensing in its current beneficial form.

Respectfully submitted,

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/s/ Ryan W. Koppelman
Ryan W. Koppelman
CA Bar No. 290704
ryan.koppelman@alston.com
ALSTON & BIRD LLP
1950 University Avenue
5th Floor
East Palo Alto, CA 94303-2282
Phone: 650.838.2000
Fax: 650.838.2001

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