

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
Wireless E911 Location Accuracy Requirements)	GN Docket No. 11-117
)	
)	
In the Matter of IP-Enabled Services E911 Requirements for IP-Enabled Service Providers)	WC Docket No. 05-196
)	
)	
In the Matter of Facilitating the deployment of Text-to-911 and other NG911 applications. Framework for Next Generation 911 deployment)	PS Docket No. 11-153
)	
)	
In the Matter of Framework for Next Generation 911 Deployment)	PS Docket No. 10-255
)	

COMMENTS OF TELECOMMUNICATION SYSTEMS INC. FOR DECLARATORY RULING AND/OR RULEMAKING

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SUMMARY

TeleCommunication Systems, Inc. ("TCS") has proposed that the Federal Communications Commission ("Commission" or "FCC") provide guidance as to the applicability of 28 U.S.C. § 1498 in those circumstances where a wireless carrier, 911 or E911 services provider, in the course of complying with 47 C.F.R. §§ 9.7, 20.18 in the offering of 911 or E911 services, is alleged to have infringed upon a patent and the allegation involves a claim that the infringement is based on compliance with an FCC order, standard, or regulation. Specifically TCS seeks guidance (a) that, based on § 9.7 and § 20.18 of the Rules and Commission precedent, the provision of wireless 911, E911, and NG911 location-based services are in furtherance and fulfillment of a stated Government policy; (b) that the Commission is now aware that its stated policy may require application of a patent if an E911 services provider is to comply with FCC regulations; and (c) that 911, E911, and NG911 location-based services are used with the authorization or consent of the Government. In the alternative, TCS has requested that the Commission expand its Rules by amending § 9.7 and § 20.18 to provide that owners or controllers of capabilities that can be used for 911 and E911 service (and in the future NG911 service) must make those capabilities available on fair, reasonable, and nondiscriminatory ("FRAND") rates, terms, and conditions not only to interconnected VoIP providers, but also to CMRS providers and those 911 and E911 services providers providing them with the underlying capabilities.

Commission action is required in this instance because the lack of a Commission policy as to patent interference management has become a significant roadblock to the provision of E911—a roadblock that will only increase as Next Generation 911 ("NG911") services are implemented and widely deployed. As long ago as 1961, in the *Revised Patent Procedures of the Federal Communications Commission*, this agency recognized the danger that the prejudicial

use of patents could pose to the provision of new communications services and expressed the expectation that "[w]henver it appears that the patent structure is or may be such as to indicate obstruction of the service to be provided under the technical standards promulgated by the Commission, this fact will be brought to the Commission's attention for early consideration and appropriate action."¹

By virtue of its Petition, TCS is bringing this very serious patent-related problem to the Commission's attention and urges prompt action because Commission-mandated 911 and E911 regulations have had the unintended consequence of engendering an onslaught of predatory patent litigation. As a result, the public may suffer disruption of current 911 and E911 services, and faces the real potential for delay or loss of NG911 services, due to the repeated infringement lawsuits filed mostly by patent assertion entities ("PAEs") which seek to enforce their claims by asserting that deployment of the capabilities (including technologies, systems, and methodologies) necessary to provide 911 and E911 services (and very soon NG911 services) in compliance with FCC orders, regulations, or standards is the proximate cause of alleged infringement. Taking advantage of the mandatory nature of the Commission's 911 and E911 regulations, PAEs have forced wireless carriers and 911/E911 services providers (such as TCS), into the dilemma of either facing the unacceptable consequences of violating or being a party to violating FCC licensing standards or facing the prospect of unwittingly being adjudicated as a patent infringer.

TCS has requested the FCC to provide interpretive guidance as to the application of 28 U.S.C. § 1498 with regard to the Commission's 911 and E911 regulations, and proposed NG911 regulations. § 1498 provides a defense to patent infringement liability for those who are alleged

¹ Public Notice – Revised Patent Procedures for the Federal Communications Commission (December 1961) 3 FCC 2nd pp 26-27.

to infringe patents in the course of performing a function with the authorization or consent of the government. Specifically, for a non-government entity, the statute states that the accused activity is "for the United States" if it is conducted "for the Government" and "with the authorization or consent of the government."

Commission guidance is both appropriate and necessary in this instance because the FCC has prescribed by regulation the 911 and E911 requirements upon which the infringement claims are based and has required that wireless carriers and 911/E911 service providers adhere to them. Furthermore, the implementation of these requirements is in furtherance of an important government function—providing 911/E911 emergency services for the purpose of promoting safety of life and property through the use of wire and radio communication. The plain language of § 1498 unambiguously applies to the Commission's 911/E911 and future NG911 regulations. Moreover, it has recently been held that "for the government" means that the use must take place in furtherance of government policy with some benefit accruing to the government. Likewise, the Commission is now fully aware that its stated policy may require application of a patent if a 911, E911 and/or NG911 services provider is to comply with FCC current and proposed regulations.

Guidance from the FCC is required for at least two reasons. First, it will better enable companies subject to the Commission's regulations to determine the risk associated with entering and/or remaining in the 911, E911, and NG911 markets. Second, and perhaps more importantly, it will remove the threat of injunctions which could force 911 and E911 services providers to stop providing the capabilities necessary for the continuing provision of these emergency services. In fact, while 28 U.S.C. § 1498 provides for reasonable and entire compensation to the patent holder for infringing use, the infringing use may not be enjoined.

As an alternative to providing the requested guidance, TCS has requested that the FCC expand its current rules to require that all 911/E911 and NG911 capabilities, including intellectual property rights ("IPR") be provided to CMRS providers and their underlying 911/E911 services providers on reasonable terms and conditions that are demonstrably free of any unfair discrimination so long as the capabilities (including IPR) are used for the purpose of providing 911 or E911 services in accordance with the Commission's Rules. The Commission has broad authority with regard to the provision of 911 and E911 services. It is well established that the Commission may exercise its ancillary jurisdiction in situations such as this, where its general jurisdictional grant under Title I covers the subject of the regulations (*i.e.* duty to promote safety of life and property and to facilitate prompt and reliable infrastructure deployment as well as the fact that the issue involves telecommunications and telecommunications services) and the regulations are reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities (*i.e.* the provision of safe and reliable 911 and E911 services). The capabilities, systems and methodologies in question are part and parcel of the network elements, features, and processes necessary for compliance with Commission 911/E911 standards. Moreover, § 9.7 of the Commission's Rules provides that an owner or controller of a capability that can be used for 911 or E911 service must make that capability available to a requesting interconnected VoIP provider on rates, terms and conditions that are reasonable. Consequently, to the extent that capabilities are or could be used for both wireless and VoIP, the Commission has already required—at least with regard to interconnected VoIP—that they be made available at reasonable rates, terms and conditions. Therefore, we face the odd situation where a wireless carrier may be forced to pay far more than an interconnected VoIP provider for the same Commission-mandated capabilities simply because of a quirk in the

FCC's rules. Consequently, action regarding the terms and conditions of patent licenses is appropriate in this case in order to assure the unobstructed and reliable provision of all 911 and E911 services (and in the future, NG911 services).

TABLE OF CONTENTS

SUMMARY i

COMMENTS OF TELECOMMUNICATION SYSTEMS INC.
ON PETITION FOR DECLARATORY RULING AND/OR RULEMAKING..... 1

I. The Commission Should Issue Guidance as to the
Relevance of 28 U.S.C. § 1498 to Patent Infringement Claims Involving 911 Services 7

II. The Commission Has Authority to Act to Require FRAND Pricing..... 11

CONCLUSION..... 15

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COMMENTS OF TELECOMMUNICATION SYSTEMS INC.

ON PETITION FOR DECLARATORY RULING AND/OR RULEMAKING

TeleCommunication Systems, Inc. ("TCS") hereby submits the following Comments in response to the Federal Communications Commission's ("FCC" or "Commission") Public Notice

seeking comments in the above-referenced proceedings.² As indicated in the Commission's Public Notice, TCS has filed a Petition for Declaratory Ruling and/or Rulemaking ("Petition") seeking guidance as to the applicability of the elements of 28 U.S.C. § 1498 in certain situations where it is alleged by the patent holder that compliance with mandatory FCC 911 and E911 regulations amounts to an infringement upon intellectual property rights.³ Specifically TCS seeks guidance (a) that based on § 9.7 and § 20.18 of the Rules and Commission precedent,⁴ the provision of 911/E911 and NG911 location-based services are in furtherance and fulfillment of a stated Government policy; (b) that the Commission is now aware that its stated policy may require application of a patent if a 911/E911 services provider is to comply with FCC regulations; and (c) that 911/E911 and NG911 location-based services are used with the authorization or consent of the Government.⁵ In the alternative, TCS has requested that the Commission expand the scope of its rules by amending § 9.7 and § 20.18 to provide that owners or controllers of capabilities that can be used for 911 and E911 service must make those

² Public Notice, *Public Safety and Homeland Security Bureau Seeks Comment on Petition for Declaratory Ruling and/or Rulemaking Filed by TeleCommunication Systems, Inc.*, DA 13-273, GN Docket 11-117 (rel. February 22, 2013) ("Public Notice").

³ 28 U.S.C. § 1498(a) provides in relevant part:

Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture.

This includes the use of a patent by any person in furtherance of a government policy with the authorization or consent of the government. *See also*, Brian Cook, *Clearing a Path for Digital Development: Taking Patents in Eminent Domain Through the Adoption of Mandatory Standards*, 82 S. Cal. L.Rev. 97, 126 (2008) ("Cook") ("Thus, it is arguable that the FCC's regulations requiring the inclusion of digital tuners in all television sets fall within the purview of § 1498").

⁴ *See e.g.* Report and Order and Second Further Notice of Proposed Rulemaking, In the Matter of Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling systems, 18 FCC Red 25340, 25345-46 (2003) (E911 Scope Order); Report and Order and Further Notice of Proposed Rulemaking, In the Matter of Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, 11 FCC Red 18676 (1996) (E911 First Report and Order).

⁵ Petition pp. 18-19.

capabilities available on reasonable rates, terms, and conditions not just to interconnected VoIP providers, but also to CMRS providers and those 911 and E911 services providers providing them with the underlying capabilities.

In filing this Petition, TCS has sought to bring to the FCC's attention a growing problem which threatens not only to impair the provision of 911 and E911 services but also to discourage innovation and delay the deployment of NG911 services. As the FCC explained in the Public Notice, the gravamen of the petition is that TCS, wireless carriers, and other providers of 911 and E911 services and capabilities have become the targets of predatory patent infringement suits based on their role as providers of these services and capabilities as required pursuant to Commission rules. These lawsuits, mostly filed by patent assertion entities ("PAEs")⁶, typically allege infringement based primarily on the fact that the defendants are in compliance with Commission regulations.⁷ For example, in some lawsuits the alleged infringement is based upon the theory that the use of 911 and E911 capabilities such as the "systems and methodology" necessary to combine wireless systems with location-finding technology in compliance with Commission regulatory requirements violates the patent owner's intellectual property rights ("IPR").⁸ In others, it is alleged that patent infringement results from the mere fact that a wireless phone has the capability to transmit GPS-based location information providing the whereabouts of the phone when the phone makes an emergency call.⁹

Clearly, in adopting its location and other requirements, the Commission never contemplated that the mere use of "methodologies" which permit an entity to comply with the

⁶ In the Public Notice, the Commission defines the term "patent assertion entity" as firms whose business model primarily focuses on purchasing and asserting patents rather than developing new technologies. Public Notice at FN 6. For example, PAEs are typically understood to be non-practicing entities that do not make products, sell services, or engage in industry standards.

⁷ Public Notice at 1.

⁸ Petition at 3.

⁹ *Id.* at 4.

agency's 911 and E911 requirements would engender the growing flood of patent infringement litigation. Unfortunately, the FCC's mandatory 911/E911 regulations have given PAEs the opening to file a myriad of patent infringement lawsuit against entities complying with Commission regulations, such as TCS and its customers, which are given the stark and untenable choices of violating FCC regulations, defending costly lawsuits, accepting unreasonable settlements, or leaving the market. The lawsuits have the clear effect of discouraging innovation and threatening to impair deployment of E911.

Moreover, the problem will worsen as the FCC moves toward the implementation of NG911. The transition to NG911 will require replacing the legacy circuit-switched technology with Internet Protocol technologies and applications which will support many more modes of communication. As the Commission has recognized in its recent NG911 Services Report to Congress, such a transitioning to NG911 will require, *inter alia*, "standards that support seamless communication among Public Safety Answering Points ("PSAPs") and between PSAPs and emergency responders."¹⁰ These new standards and the added complexities of NG911 will significantly increase the danger of lawsuits directed at providers offering NG911 capabilities. Furthermore, contrary to the Commission's contention in its Report to Congress, the agency cannot rely on industry standards setting bodies to control the situation¹¹ because the PAEs do not participate in such groups and, as a result, are not bound by the almost-uniform requirement of the standards bodies that IPR be made available on the basis of FRAND.

¹⁰ Federal Communications Commission, *Legal and Regulatory Framework for Next Generation 911 Services: Report to Congress and Recommendations* at 4 (February 22, 2013) ("Report").

¹¹ *Id.* at 48.

TCS has filed its petition in accordance with the Commission's long-standing *Revised Patent Procedures of the Federal Communications Commission*,¹² because both directly and indirectly through its customers, TCS has become a victim of many of the PAE lawsuits. TCS provides a significant portion of the underlying capabilities which permit its wireless carrier and interconnected VoIP service provider customers to identify the location of emergency phone calls and then send those calls to the proper PSAP. TCS supports approximately 50 percent of all U.S. wireless E911 calls. Since 1996, TCS has been successfully delivering E911 service to 100 million U.S. subscribers of 30 wireless carriers. Every day, it handles more than 150,000 life-saving calls, and it is integrated with thousands of PSAPs, nearly all ALI databases, and every major LEC.

As a provider of both Mobile Positioning Center and VoIP Positioning Center services, the capabilities that TCS offers are critical to ensuring that a subscriber's emergency call routes to the appropriate Public Safety Answering Points (PSAP) and automatically pinpoints the caller's location information. TCS offers to its customers a wireless E911 solution which provides wireless operators with end-to-end support and comprehensive deployment, from switch integration, database management, and GIS to compliance expertise, services to PSAPs, and cost-recovery assistance. TCS gives interconnected VoIP service providers the ability to automate most of the exhaustive data provisioning activity while ensuring the data's accuracy and integrity. The capabilities provided by TCS also give interconnected VoIP service providers access to real-time provisioning and validation of subscriber and address information, and ensure data transparency and enable real-time data management. TCS provides a common call control interface for static, nomadic and mobile routing capabilities. This common call control

¹² In these procedures, the Commission indicated that problems such as the ones faced by TCS should be brought to the Commission's attention for action. Public Notice – Revised Patent Procedures for the Federal Communications Commission (December 1961) 3 FCC 2nd pp 26-27. ("Commission Patent Procedures")

architecture is the preferred method to determine routing of E911 calls for any service provider as it does not limit a provider to a particular type of use and reduces the amount of network configuration needed by the network provider.

The FCC can no longer afford to ignore the problem caused by 911 and E911-based patent infringement lawsuits. The regulations upon which these lawsuits are premised are critical to the proper functioning of this nation's 911 and E911 networks, and will be even more critical as the nation transitions to Internet Protocol-based NG911. These regulations and the service provider functionalities which they mandate not only further the FCC's "long-standing public safety and homeland security goals," but are critical because they are designed to "minimize potentially life-threatening delays that may ensue when first responders cannot be confident that they are receiving accurate location information."¹³ Neither the Commission nor 911 and E911 services providers have the option of ignoring the mandatory public safety nature of these requirements.

Moreover, as the Commission now appears to acknowledge, sound communications policy dictates and common sense requires, that at least with regard to wireless communications-related IPR, the FCC must investigate and attempt to address issues such as this which raise "serious competition and innovation concerns, and for wireless customers."¹⁴ The FCC must provide guidance with regard to §1498 or require FRAND pricing for 911 and E911 capabilities if we are "to continue to have the vibrant, competitive wireless market that delivers innovative products and solid service to meet consumers' needs."¹⁵

¹³Wireless E911 Location Accuracy Requirements, Second Report and Order, PS Docket No. 07-114 at ¶ 12 (Sept. 23, 2010).

¹⁴ Statement from FCC Chairman Julius Genachowski on the Copyright Office of the Library of Congress Position on DMCA and Unlocking New Cell Phones (rel. March 4, 2013).

¹⁵ Statement of R. David Edelman, White House Senior Advisor for Internet, Innovation, & Privacy (addressing the effect that copyright restrictions can have on innovation in cell phone technology). <http://www.wired.com/threatlevel/2013/03/mobile-phone-unlock/>

I. The Commission Should Issue Guidance as to the Relevance of 28 U.S.C. § 1498 to Patent Infringement Claims Involving 911 Services

TCS has requested the FCC to provide interpretive guidance as to the application of 28 U.S.C. § 1498 with regard to the Commission's E911 and proposed NG911 regulations. In particular, since § 1498 provides a defense to patent infringement liability for those who are alleged to infringe patents in the course of performing a government function, companies operating in the E911 and NG911 space are attempting to fight back against infringement claims that are based largely, if not completely, on compliance with 47 C.F.R. §§ 9.7 and 20.18.¹⁶

28 U.S.C. § 1498 provides in relevant part:

Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture. . . .

For the purposes of this section, the use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm, or corporation for the Government and *with the authorization or consent* of the Government, shall be construed as use or manufacture for the United States.

28 U.S.C. § 1498(a) (emphasis added). Specifically, for a non-government entity, the statute states that the accused activity is "for the United States" if it is conducted "for the Government" and "with the authorization or consent of the Government."¹⁷

In a case recently affirmed by the Federal Circuit, it was clarified that "'for the government' means that the use must take place in furtherance of government policy with some

¹⁶ In cases filed between 2007 and 2012 where E911 was implicated (of which many of the 13 cases were multi-defendant litigations) ("E911 cases"), the affirmative defense of 28 U.S.C. § 1498 was asserted 36 times in answers and amended answers. Exhibit A.

¹⁷ § 1498(a) ¶ 2; *see also Severson Envtl. Servs., Inc. v. Shaw Envtl., Inc.*, 477 F.3d 1361, 1365 (Fed. Cir. 2007).

benefit accruing to the government."¹⁸ There is no question that the provision of E911 and NG911 location-based services are in furtherance and fulfillment of a stated Government policy given that E911 regulations are in furtherance of the federal government's 911 public safety policies and the ultimate benefit is shared among federal and state public safety officials and the public they serve.¹⁹ Likewise, the Commission is now fully aware that its stated policy may require application of a patent if an E911 and/or NG911 services provider is to comply with FCC current and proposed regulations.²⁰ Accordingly, if any ambiguity exists with regard to whether an affirmative defense under 28 U.S.C. § 1498 would apply in this context, it would likely be argued to reside in the proposition that E911 and/or NG911 location-based services are used with the authorization or consent of the Government.

As set forth in more detail below, courts have not yet analyzed the issue of authorization or consent directly in the context of E911 and/or NG911 location-based services. However, analysis in other contexts is insightful. For example, in a recent Federal Circuit decision, the alleged infringement involved use of a technology system for encoding checks of the United States Treasury.²¹ The court ultimately found that the Treasury had implied its authorization or consent through its correspondence to the Federal Reserve Banks, including a letter stating that the Treasury intended to implement the check-encoding technology in the processing of Treasury

¹⁸ *Adv. Software Design Corp. v. Fed. Res. Bank of St. Louis*, No. 07-CV-185, 2007 U.S. Dist. Lexis 83538 at *11 (E.D. Mo. 2007); see also *Madey v. Duke Univ.*, 413 F. Supp. 2d 601, 607 (M.D.N.C. 2006).

¹⁹ Furthermore, to be "for the government," the government does not need to be the sole beneficiary of an activity. *Adv. Software Design Corp. v. Fed. Res. Bank of St. Louis*, 583 F.3d 1371, 1372-73 (Fed. Cir. 2009). Rather, an activity can serve the public as well. For example, check-encoding technology serves the national interest by thwarting fraud and saving resources, and a satellite program critically bolsters the military security of the United States. *Id.* (citing *Hughes Aircraft Co. v. United States*, 209 Ct. Cl. 446, 534 F.2d 889, 898 (1976)). Here, E911 and/or NG911 location-based services benefit both the government and its emergency responders as well as the public.

²⁰ As the Commission recognized in its Patent Procedures "[t]he Commission promulgates technical standards, for broadcasting and other radio communication services to establish requirements which its licensees must meet in order to provide the kind and quality of service desired. Such requirements may frequently be met only through the use of patented equipment." *Commission Patent Procedures, supra*.

²¹ *Adv. Software Design Corp.*, 583 F.3d at 1373.

checks.^{22, 23} This correspondence was reinforced by the government's representations to the court that the accused activities were undertaken with the authorization or consent of the United States.²⁴ As the District Court below recognized, "no specific contract or explicit 'authorization or consent' clause is required by § 1498(a)."²⁵

In contrast, health care providers used patented splints in treating their Medicare patients, and the government reimbursed the cost of the splints through the Medicare program.²⁶ When the patent holder alleged that the government impliedly authorized or consented to the infringing use of the splints, the court held that "[i]mplied government consent to infringement has been found only where particular government specifications required a particular patent infringement."²⁷ As the court explained, "even though a splint may be medically necessary, *neither the law nor the government mandates* any particular splint or method of application."²⁸ "[T]he general availability of non-infringing splints or casts, coupled with the fact that neither Medicare nor its providers were *required* to use plaintiffs' patents to perform their contractual obligation, established that the government did not authorize or consent to any infringement of plaintiffs' patents."²⁹

In the context of E911 and/or NG911 location-based services, the government has implied its authorization or consent for the allegedly infringing activity by regulating the activity through 47 C.F.R. §§ 9.7 and 20.18. Indeed, regulated companies operating in the 911 or E911 space (or in the future NG911) do not have the opportunity to choose from a multitude of

²² *Id.* at 1377.

²³ "The government's authorization and consent may be either express or implied." *See, e.g., BAE Sys. Info. & Elec. Sys. Integration Inc. v. Aeroflex Inc.*, CIV. 09-769-LPS, 2011 WL 3474344 (D. Del. Aug. 2, 2011), appeal dismissed (Dec. 13, 2012).

²⁴ *Id.* at 1376.

²⁵ *Id.* at 1376.

²⁶ *Larson v. United States*, 26 Cl. Ct. 365, 367 (1992).

²⁷ *Id.* at 368, 370.

²⁸ *Id.* at 367-68 (emphasis added).

²⁹ *Id.* at 371 (emphasis added).

non-infringing alternatives. Rather, the government mandates the employment of location-based capabilities that may require application of a patent.

Since none of the E911 cases brought thus far (listed in Exhibit A) have resulted in a legal conclusion on whether compliance with the Commission's regulations are indeed authorization or consent within the meaning of § 1498, it is imperative that regulated companies are afforded guidance in this area by the FCC.³⁰ Indeed, in view of the strong likelihood of being hauled into court to fight allegations of infringement on at least one 911, E911, or NG911 patent, guidance from the FCC on this topic will better enable companies complying with the Commission's regulations to determine the risk associated with entering and/or remaining in the 911, E911, or NG911 markets.

Moreover, even though injunctive relief to halt infringing activity is available in both preliminary and permanent form against private patent infringers, 28 U.S.C. § 1498 has the effect of removing the threat of injunction, yet it still provides for reasonable and entire compensation for infringing use just as any other infringement action.³¹ Accordingly, since injunctive relief is not available against the government or its "contractors" for infringement that is compensable under § 1498, guidance from the FCC as to whether compliance with 47 C.F.R. §§ 9.7 and 20.18 satisfy the "authorization or consent" component of § 1498 will help to provide

³⁰ Since the § 1498 defense is an affirmative defense, not a jurisdictional bar, the first time that § 1498 may be resolved is on summary judgment under Rule 56. *See, e.g., Toxgon Corp v. BNFL, Inc.*, 312 F.3d 1379, 1381 (Fed. Cir. 2002). Accordingly, it is not uncommon for a case to be litigated for 18 to 30 months before it is proper to move on the § 1498 defense. Fact and expert discovery will likely have ended by this point and, therefore, significant litigation costs must be incurred before dispositive motions will be entertained by the court. Of the E911 cases referenced in Footnote 15, the average time to the Summary Judgment phase of the litigation is greater than 22 months. Thus, it is not unexpected that most of the above-referenced defendants that pled § 1498 settled before dispositive motions would have been heard. Exhibit A.

³¹ *See Adv. Software Design Corp.*, 583 F.3d at 1375 (citing *Motorola, Inc. v. United States*, 729 F.2d 765, 768 n. 3 (Fed. Cir. 1984)).

a much needed barrier against potential injunctions of critical E911 services provided by accused operating companies.³²

For the foregoing reasons, there is a critical need for the Commission to provide the requested guidance on the application of § 1498 to patent infringement claims relating to the provision of 911, E911, and NG911 services provided in compliance with 47 C.F.R. §§ 9.7 and 20.18. Such guidance is appropriate and entirely consistent with the FCC's patent procedures.

II. The Commission Has Authority to Act to Require FRAND Pricing

As an alternative to providing the requested guidance, TCS has requested that the FCC expand its current rules to require that all E911 and NG911 capabilities (including IPR) be provided to CMRS providers and their underlying E911 services providers on reasonable terms and conditions that are demonstrably free of any unfair discrimination ("FRAND") so long as the capabilities (including IPR) are used for the purpose of providing 911 or E911 services in accordance with the Commission's Rules. 911 and E911 services are of critical importance and relate to one of the fundamental purposes for which the Commission was formed—protecting public safety. Therefore, it is well established that the Commission has broad authority with regard to the provision of 911 and E911 services. It is equally without doubt that the Commission may exercise its ancillary jurisdiction in situations such as this, where its general jurisdictional grant under Title I covers the subject of the regulations (*i.e.*, duty to promote safety of life and property and to facilitate prompt and reliable infrastructure deployment as well as the fact that the issue involves telecommunications and telecommunications services) and the

³² Other solutions are being proposed concurrently that are not limited to this specific application within the FCC. For example, the SHIELD Act (HR 845) would require PAEs to post a bond to cover the legal costs of the defendant if the defendant prevails. However, the SHIELD ACT and other similar legislative bills do not address the issue of a government mandate and the companies regulated thereunder.

regulations are reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities (*i.e.*, the provision of safe and reliable 911 and E911 services).³³

FRAND, also known as "RAND" in the U.S., is a legal acronym that stands for "fair, reasonable, and nondiscriminatory". Indeed, the very nature of FRAND is based on the principle that fair licensing of intellectual property is often necessary because certain ideas and patents need to be shared for everything to work together properly or in the interest of public safety. As such, FRAND pricing is understood to reach a result that is fair to both IPR owners and IPR licensees. It is a fairly simple idea, and one that has been applied across a number of industries in recent years, typically to address; (a) standards for particular technologies, (b) patent owners that hold what are known as patents that are essential to such standards, and (c) the obligation of the patent owners to license the essential patents to all of the other industry participants in a fair, reasonable, and nondiscriminatory manner. The FRAND principle is deeply rooted in preventing the abuse of power and the formation of a potential trust in that it makes it difficult for a patent holder to use its patents to overcharge competitors for licensing fees and gain an unfair advantage.³⁴

TCS' request is in line with Commission precedent. The Commission has previously addressed the issue of its authority to require that 911 and E911 capabilities be provided on a FRAND basis. In adopting Section 9.7 of the Commission's Rules, the Commission required that an owner or controller of a capability that can be used for 911 or E911 service must provide

³³ *Am. Library Ass'n v. FCC*, 406 F.3d 689, 700 (D.C. Cir. 2005).

³⁴ *See, e.g., Microsoft Corp. v. Motorola, Inc.*, 864 F. Supp. 2d 1023, 1027 (W.D. Wash. 2012) ("In order to reduce the likelihood that owners of essential patents will abuse their market power, many standards setting organizations, including the IEEE and the ITU, have adopted rules related to the disclosure and licensing of essential patents. The policies often require or encourage members of the standards setting organization to identify patents that are essential to a proposed standard and to agree to license their essential patents on reasonable and non-discriminatory ("RAND") terms to anyone who requests a license. Such rules help to ensure that standards do not allow essential patent owners to extort their competitors or prevent competitors from entering the marketplace.")

such a capability to an interconnected VoIP provider on reasonable rates, terms, and conditions.³⁵ This provision applies to any entity that owns or controls the capabilities and not just to the carriers typically regulated by the Commission.³⁶ The FCC has defined the capabilities to which § 9.7 applies as including, among other things, those items used by wireless providers in the provision of 911 and E911 services such as:

the Selective Router; the trunk line(s) between the Selective router and the PSAP(s); the ALI database; the SR database; the DBMS; the MSAG; p-ANIs; ESNs; mobile switching center capabilities; shell records; the data circuits connecting these elements; and the network elements, features, processes, and agreements necessary to enable the use of these elements. [footnote omitted] [emphasis supplied].³⁷

At a minimum, the 911 and E911 capabilities at issue in the PAE lawsuits fall within the definition of "mobile switching center capabilities" and "the network elements, features, processes, and agreements necessary to enable the use of these elements." Moreover, they are critical components of the network elements underlying the provision of wireless and VoIP 911 services in compliance with FCC regulations.

Adoption of the proposed rules will also address the current asymmetry in regulation whereby a capability used to provide VoIP 911 or E911 is subject to FRAND pricing, while the same capability used to provide wireless 911 or E911 by the same services provider is not. Therefore, we face the odd and unacceptable situation where a wireless carrier or other 911 or E911 services provider may be forced to pay far more for a capability than an interconnected VoIP provider for the same Commission mandated capability simply because of a quirk in the FCC's rules.³⁸ More specifically with regard to TCS, under the current Commission rules and

³⁵ 47 C.F.R. § 9.7.

³⁶ Report and Order, *In the Matter of Implementation of the NET 911 Improvement Act of 2008*, FCC 08-249, WC Docket 08-171, 23 FCC Rcd 15884 ("NET 911 Order") at ¶ 28.

³⁷ *Id.* at 9.

³⁸ Although the FCC's rules presume that owners of 911 and E911 capabilities will always make them available to CMRS providers on reasonable terms, the Commission is not bound by this presumption because the presumption is

precedent, TCS is permitted to assert in a patent infringement lawsuit filed against it that any contested 911 or E911 capability it provides to an interconnected VoIP service provider is covered by the requirement that the owner or controller of that capability must make it available to TCS on a reasonable basis. However, there is no such limitation with regard to the same capability provided by TCS to a CMRS provider. What will happen in the NG911 context when the Commission is faced with the question of whether its FRAND rule applies to VoIP over wireless provided by a wireless carrier today or in a 4G/LTE environment? This is a prescription for mass confusion as we transition to the Internet Protocol technologies of NG911. Clearly, the Commission can neither intend nor accept such a result.

A FRAND approach to any patents implicated by the Commission's current 911, E911, and future NG911 regulations would not require the Commission to opine on the scope or validity of such patents. Rather, it would be the allegation by the patent owner that the patent is essential or implicated by 47 C.F.R. §§ 9.7 and 20.18 that would trigger FRAND (as opposed to any determination or acknowledgment by the FCC that such patent is essential). Accordingly, the proposed expansion of the current rules to effect a FRAND approach would institute a minimally intrusive FRAND framework that does not burden the FCC or the patent market. In addition, the framework would strike an appropriate balance between the public safety concerns driving the regulations and the right of a patent owner to collect royalties on a valid patent. Commission action is necessary to achieve this necessary equilibrium.

rebuttable given that it is only an "indicia" of reasonableness. In fact, the Commission may order that the capabilities be made available to interconnected VoIP service providers on less onerous terms than those available to CMRS providers. *See id.* at ¶ 31. Until now, the Commission has never had to consider the issue of how to handle the situation as here where 911 and E911 capabilities are unavailable to CMRS providers on a reasonable basis.

CONCLUSION

For the reasons stated herein, TCS hereby requests that the Commission grant its Petition for Declaratory Ruling and/or Rulemaking.

Respectfully submitted,

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Dated: March 25, 2013

EXHIBIT A

EXHIBIT A

Case Name	Defendants	§ 1498 Defense Asserted ¹	Time to Summary Judgment Motion ²	Case Disposition Before Summary Judgment ³
<i>800 Adept, Inc. v. AT&T Mobility LLC et al.</i> 5:07-cv-00023 Eastern District of Texas Complaint filed 2/6/07	AT&T Mobility, LLC	✓	22 months	✓
	Cellco Partnership	✓		✓
	Sprint Nextel Corporation	✓		✓
	T-Mobile USA, Inc.	✓		✓
	Nextel of California, Inc.	✓		✓
	Sprint Spectrum L.P.	✓		✓
	Nextel Communications of the Mid-Atlantic, Inc.	✓		✓
	Nextel of New York, Inc.	✓		✓
	Nextel South Corp.	✓		✓
	Nextel of Texas, Inc.	✓		✓
	Nextel Operations, Inc.	✓		✓
	Nextel West Corp.	✓		✓
<i>EMSAT Advanced Geo-Location Technology, LLC et al. v. T-Mobile USA, Inc.</i> 4:08-cv-00817 Northern District of Ohio Complaint filed 3/31/08	T-Mobile USA, Inc.	✓	22 months	
	Defendant-Intervenor Google, Inc.			

¹ A positive indication in this column reflects that a defendant has asserted 28 U.S.C. § 1498 as an affirmative defense in either its answer or amended answer to a complaint. Section 1498 is an affirmative defense resolved in summary judgment under Federal Rule of Civil Procedure 56 rather than Rule 12.

² Based on the approximate time from filing of initial complaint to the deadline for dispositive motions according to the discovery schedule.

³ A positive indication in this column refers to settlement or case dismissal prior to the time at which dispositive motions would have been entertained by the court.

EXHIBIT A

Case Name	Defendants	§ 1498 Defense Asserted ¹	Time to Summary Judgment Motion ²	Case Disposition Before Summary Judgment ³
<i>EMSAT Advanced Geo-Location Technology, LLC et al. v. Sprint Spectrum L.P. et al.</i> 4:08-cv-818 Northern District of Ohio Complaint filed 03/31/08	Sprint Spectrum L.P.		18 months	
	Sprint Communications Company LP			
	Nextel Operations, Inc.			
	Nextel West Corp.			
	Nextel of California, Inc.			
	Nextel Communications of the Mid-Atlantic, Inc.			
	Nextel of New York, Inc.			
	Nextel South Corp.			
	Nextel of Texas, Inc.			
	Boost Mobile LLC			
Boost Worldwide, Inc.				
<i>EMSAT Advanced Geo-Location Technology, LLC et al. v. Cellco Partnership</i> 4:08-cv-816 Northern District of Ohio Complaint filed 3/31/08	Cellco Partnership d/b/a Verizon Wireless		19 months	

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² Based on the approximate time from filing of initial complaint to the deadline for dispositive motions according to the discovery schedule.

³ A positive indication in this column refers to settlement or case dismissal prior to the time at which dispositive motions would have been entertained by the court.

EXHIBIT A

Case Name	Defendants	§ 1498 Defense Asserted ¹	Time to Summary Judgment Motion ²	Case Disposition Before Summary Judgment ³
<i>EMSAT Advanced Geo-Location Technology, LLC et al. vs. Alltel Corp., et al.</i> 4:08-cv-821 Northern District of Ohio Complaint filed 3/31/08	Alltel Corp.		19 months	
	Alltel Communications, LLC			
<i>EMSAT Advanced Geo-Location Technology, LLC v. AT&T Mobility LLC</i> 4:08-cv-00822 Northern District of Ohio [Consolidated with case 5:10-cv-00245 on 2/24/10] Complaint filed 03/31/08	AT&T Mobility, LLC	✓	22 months	
	Tracfone Wireless, Inc.	✓		

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EXHIBIT A

Case Name	Defendants	§ 1498 Defense Asserted ¹	Time to Summary Judgment Motion ²	Case Disposition Before Summary Judgment ³
<i>EMSAT Advanced Geo-Location Technology, LLC et al. v. MetroPCS Communications, Inc. et al.</i> 2:08-cv-381 Eastern District of Texas [Case transferred to N.D. Ohio, 11/9/10, 4:10-cv-02567] Complaint filed 10/07/08	MetroPCS Communications, Inc.	✓	33 months	✓
	MetroPCS Wireless, Inc.	✓		✓
	Centennial Communications Corp.	✓		✓
	Leap Wireless International, Inc.			✓
	Cricket Communications, Inc.			✓
	ETEX Telephone Cooperative Inc.	(Dismissed without answer)		✓
	ETEX Communications, L.P.	(Dismissed without answer)		✓
<i>EMSAT Advanced Geo-Location Technology, LLC et al. v. United States Cellular Corporation</i> 3:09-cv-00007 Northern District of West Virginia [Transferred to N.D. Ohio 10/6/09, 4:09-cv-02313] Complaint filed 01/26/09	United States Cellular Corporation	✓	23 months	

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² Based on the approximate time from filing of initial complaint to the deadline for dispositive motions according to the discovery schedule.

³ A positive indication in this column refers to settlement or case dismissal prior to the time at which dispositive motions would have been entertained by the court.

EXHIBIT A

Case Name	Defendants	§ 1498 Defense Asserted¹	Time to Summary Judgment Motion²	Case Disposition Before Summary Judgment³
<i>Tendler Cellular of Texas, LLC v. AT&T Mobility, LLC et al.</i> 6:09-cv-115 Eastern District of Texas Complaint filed 03/12/09	AT&T Mobility, LLC	✓	20 months	✓
	Cellco Partnership d/b/a/ Verizon Wireless	✓		✓
	Sprint Nextel Corporation [later substituted by Sprint Spectrum L.P. & Nextel Operations, Inc.]			
	United States Cellular Corporation	✓		✓
	T-Mobile USA, Inc.	✓		✓
	Sprint Spectrum L.P.	✓		✓
	Nextel Operations, Inc.	✓		✓

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² Based on the approximate time from filing of initial complaint to the deadline for dispositive motions according to the discovery schedule.

³ A positive indication in this column refers to settlement or case dismissal prior to the time at which dispositive motions would have been entertained by the court.

EXHIBIT A

Case Name	Defendants	§ 1498 Defense Asserted ¹	Time to Summary Judgment Motion ²	Case Disposition Before Summary Judgment ³
<i>EMSAT Advanced Geo-Location Technology, LLC et al. v. Virgin Mobile USA, L.P. et al.</i> 2:09-cv-00091 Eastern District of Texas Complaint filed 4/1/09	Virgin Mobile USA, L.P.	✓	27 months	✓ (severed from case)
	7-Eleven, Inc.	✓		✓
	MGA Entertainment, Inc.	(Dismissed without answer)		✓
	Circle K Stores, Inc.	✓		✓
	GreatCall, Inc.			✓
	kajeet, Inc.	✓		✓ (severed from case)
	Tracfone Wireless, Inc.	✓		✓ (severed from case)
	Ace Cash Express, Inc.			✓
	Ztar Mobile, Inc.	✓		✓

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² Based on the approximate time from filing of initial complaint to the deadline for dispositive motions according to the discovery schedule.

³ A positive indication in this column refers to settlement or case dismissal prior to the time at which dispositive motions would have been entertained by the court.

EXHIBIT A

Case Name	Defendants	§ 1498 Defense Asserted ¹	Time to Summary Judgment Motion ²	Case Disposition Before Summary Judgment ³
<i>TracBeam, L.L.C. v. AT&T Inc. et al.</i> 6:11-cv-00096 Eastern District of Texas Complaint filed 2/25/11	AT&T Inc.	✓	29 months	
	AT&T Mobility, LLC	✓		
	MetroPCS Communications, Inc.	✓		
	MetroPCS Wireless, Inc.	✓		
	Texas RSA 7B3, L.P. D/B/A/ Peoples Wireless Services			✓
	Sprint Nextel Corporation	(Dismissed without answer)		✓
	Sprint Spectrum L.P.	(Dismissed without answer)		✓
	Nextel of California, Inc.	(Dismissed without answer)		✓
	Nextel Communications of the Mid-Atlantic, Inc.	(Dismissed without answer)		✓
	Nextel of New York, Inc.	(Dismissed without answer)		✓
	Nextel South Corp.	(Dismissed without answer)		✓
	Nextel of Texas, Inc.	(Dismissed without answer)		✓
	Nextel West Corp.	(Dismissed without answer)		✓
	Cellco Partnership d/b/a Verizon Wireless	✓		
	Google, Inc.			✓ (severed from case)
	Skyhook Wireless, Inc.			✓
TeleCommunication Systems, Inc. [Consolidated Defendant]	Not in Colorado Complaint for Declaratory Judgment			

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² Based on the approximate time from filing of initial complaint to the deadline for dispositive motions according to the discovery schedule.

³ A positive indication in this column refers to settlement or case dismissal prior to the time at which dispositive motions would have been entertained by the court.

EXHIBIT A

Case Name	Defendants	§ 1498 Defense Asserted ¹	Time to Summary Judgment Motion ²	Case Disposition Before Summary Judgment ³
<i>Mosaid Technologies Inc. v. Sony Ericsson Mobile Communications (USA) Inc. et al.</i> 1:11-cv-00598 District of Delaware Complaint filed 7/7/11	Sony Ericsson Mobile Communications (USA) Inc.		22 months	
	HTC America Inc.			
<i>Cassidian Communications, Inc. v. microDATA GIS, Inc.</i> 2:12-cv-00162 Eastern District of Texas Complaint filed 3/6/12	microDATA GIS Inc.		18 months	
	Microdata LLC			
	TeleCommunication Systems, Inc.			

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² Based on the approximate time from filing of initial complaint to the deadline for dispositive motions according to the discovery schedule.

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