SUMMARY OF TCS PETITION FROM COMMENTS

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]henever 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

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

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 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).

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 Matters 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**

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

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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 Matters 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

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

SUMMARY

In this Petition for Declaratory Ruling and/or Rulemaking, TeleCommunication Systems, Inc. ("TCS") moves, pursuant to 47 C.F.R. §§ 1.2 and 1.401, that the Federal Communications Commission ("Commission" or "FCC") institute a formal rulemaking proceeding to provide guidance as to the applicability of 28 U.S.C. § 1498 in those circumstances where a wireless carrier or E911 services provider, in the course of complying with 47 C.F.R. §§ 9.5, 20.18 in the offering of 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. More specifically, TCS requests that the Commission issue guidance that in all circumstances such compliance is in furtherance and fulfillment of a paramount Government policy and is therefore equivalent to an action that is "by or for" the government and with the Government's permission consistent with the language of 28 USC §1498. In the alternative, TCS requests that the Commission establish rules that provide for licensing of patents covering E911 services and capabilities pursuant to reasonable and non-discriminatory ("RAND") terms consistent with previous decisions by the Commission under its patent procedures.

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*,[1] 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]henever it appears that the patent structure is or may be such

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

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."

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 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 E911 services, and faces the real potential for delay or loss of NG911 services, due to the repeated infringement lawsuits filed primarily by patent assertion entities ("PAEs") that seek to enforce their claims by asserting that deployment of the capabilities (including technologies, systems, and methodologies) necessary to provide 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 E911 regulations, PAEs have forced wireless carriers and 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 being adjudicated as a patent infringer. As described by the International Telecommunications Union ("ITU") patent litigation has become rampant and there has developed a trend to use standards-essential patents to block markets.

Until now, the Commission has not addressed the question of patent rights in the context of its E911 regulations and standards. However, it has ample authority to do so. Under Title I of the Communications Act, as well as the provisions of the NET 911 Act and the 911 Act, the Commission, acting in furtherance of its public safety policies, has authority to provide guidance to make clear the link to 28 U.S.C. § 1498 because of the mandatory public safety nature of the

E911 regulations. In the alternative, the Commission also has the authority to establish rules that provide for licensing of patents covering E911 services and capabilities pursuant to reasonable terms and conditions that are demonstrably free of any unfair discrimination. The Commission has exercised similar authority in the past. Moreover, prompt Commission action is required because unfolding events at the international level make it imperative for the FCC to express its views.

TABLE OF CONTENTS

I. BACKGROUND 2

A. Identity of TCS 2

B. Interest of TCS 2

II. DISCUSSION 9

A. The Commission Must Address the Repercussions to E911 of the Ongoing Litigation, and the Chilling Effect of Future Litigation on NG911 9

B. In the Past the Commission Committed to Consider the Effect of Patent Rights on its Regulations 13

C. The Commission's Past Consideration of Patents and Specific Regulations 14

D. The Commission Should Invoke 28 U.S.C. § 1498 18

E. The Commission Has Authority to Act Under Title I And The NET 911 Act to Require RAND Licensing 21

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

In the Matter of	)	
Reasonable and Nondiscriminatory Licensing of Patents Essential to Implementation of Mandatory E911 FCC Standards	)	**RM-_____**

PETITION FOR DECLARATORY RULING AND/OR RULEMAKING

TeleCommunication Systems, Inc. ("TCS") hereby submits this Petition for Declaratory Ruling and/or Rulemaking pursuant to 47 C.F.R. §§ 1.2 and 1.401. Specifically, this petition asks the Commission to modify its rules and policies governing E911 to account for the mandatory nature of 47 C.F.R. §§ 9.5, 20.18 and the fact that compliance with these rules is in furtherance and fulfillment of a stated Government policy, and therefore is by and for the government,[2] thus triggering 28 U.S.C. § 1498[3]. In the alternative, this petition requests that the Commission require that patents that cover E911 or NG911 services and capabilities be offered

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[2] *Madey v. Duke University*, 413 F. Supp. 2d 601, 607 (2006).

[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.

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").

for licensing pursuant to reasonable terms and conditions that are demonstrably free of any unfair discrimination.[4]

I. BACKGROUND

A. Identity of TCS

Since deploying the first U.S. wireless E911 solution in 1997, TCS has been a leading provider of public safety solutions for wireless E911, NG911, and 1-1-2.[5] Today, TCS supports approximately 50 percent of all U.S. wireless E911 calls. Its industry award-winning wireless and VoIP E911 products, together with wireline E911 solutions, serve over 140 million wireless and IP-enabled devices.

With the nation's only non-carrier TL 9000-certified wireless and VoIP E911 Network Operations Center, TCS' highly-reliable E911 solutions ensure that a subscriber's emergency call routes to the appropriate Public Safety Answering Points (PSAP) and automatically pinpoints the caller's location information.[6] Indeed, many of TCS' customers are Commission regulated wireless carriers or interconnected VoIP service providers and, thus, are dependent on TCS to provide E911 services and capabilities in order to comply with Commission regulations.

B. Interest of TCS

TCS believes in and supports a robust intellectual property ("IP") and licensing system in the U.S. For example, as a telecommunications vendor and services provider, TCS has over 210

[4] Proposed rules are attached as Annex A. It would be unnecessary for the Commission to adopt the proposed rules if it were to grant TCS' request for a Declaratory Ruling.
[5] "E911" is Enhanced 911 and "NG911" is Next Generation 911. NG911 typically is understood to include text-to-911 and video-to-911. "1-1-2" is the universal emergency number used in the European Union.
[6] TCS is subject to Commission regulation as a VoIP Positioning Center (VPC). *See* 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, 15896 ("NET 911 Order".

issued patents and over 300 patent applications pending worldwide.[7] TCS regularly evaluates the competitive value of its portfolio and licenses its IP as appropriate. Likewise, TCS is mindful of IP held by others and proactively seeks out licenses when necessary.

Unfortunately, TCS has recently been a target (directly or indirectly via its customers) of predatory patent infringement suits based on its role as a provider of E911 services and capabilities, even though the E911 services and capabilities provided by TCS are required by the FCC's 911 regulations as set forth in Section 20.18 of the Commission's Rules and in various agency decisions. These cases typically allege infringement based on the mere fact that the defendant is in compliance with the Commission's E911 regulations. [8,9]

For example, the infringement allegations may be premised on the theory that the use of the "systems and methodology"[10] necessary to combine wireless systems with "location-finding technology" in order to comply with the Commission's E911 Phase II location accuracy requirements[11] reads on one or more claims of the patent-in-suit.[12] Indeed, in *Tendler Cellular of Texas, LLC v. MetroPCS Communications, Inc. et. al*, Civil Action No. 6:11cv00178 (EDTX), the plaintiff specifically cited "MetroPCS' location-based service systems, including but not

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[7] More information is available on TCS's website, www.telecomsys.com, and at the investor relations section: http://phx.corporate-ir.net/phoenix.zhtml?c=123361&p=irol-news&nyo=0

[8] In fact, the number of patent litigations initiated across the country from January 2010 to present which cite the accused infringer's provision of E911 or location-based services or capabilities is surprising, yet likely to be only the "tip of the iceberg." *See, e.g.,* Exhibit A ("Lawsuit Matrix").

[9] To date, the majority of these cases are launched by what the Federal Trade Commission has termed Patent Assertion Entities ("PAEs")[9] – firms whose business model is focused on purchasing and asserting patents against industry participants already using the technology, rather than developing and transferring new technology and IP.

[10] Not all patents are based on a unique "technology." It is possible to have a patent on a "method" of doing business or a process leading to a result. Therefore, despite popular assumptions to the contrary, there are often no "work-arounds" to an infringement claim for a method patent by merely applying a different technology to achieve the same goal. *See* http://en.wikipedia.org/wiki/Business_method_patent; http://www.uspto.gov/patents/resources/methods/index.jsp

[11] 47 C.F.R. § 20.18 (h). *See also* Second Report and Order, *In the Matter of Wireless E911 Location Accuracy Requirements'*, PS Docket No. 07-144, FCC 10-176 (September 23, 2010) [E911 Location Accuracy Second Report and Order].

[12] *See* Exhibit B EMSAT Complaint at ¶¶ 16-18.

limited to their E911 provision and MetroNavigator system" as the principal basis for its infringement claim.[13] TCS' and its customers' continued ability to provide these services and capabilities, which are so critical to public safety and homeland security, are threatened by these lawsuits.[14] FCC intervention is necessary to prevent this looming market failure.

It must be noted that TCS and its customers are not alone in this new era of litigious activity surrounding E911, NG911, and patents relating to location-based services. In fact, the infringement allegations in a recent suit filed by MOSAID Technologies Inc. against HTC America, Inc., and Sony Ericsson Mobile Communications (USA), Inc., in the District of Delaware on July 7, 2011, involves and implicates cellular telephones that implement the E911 standard, as mandated by the Commission. In particular, the complaint states:

> Each of the foregoing phones has embedded emergency call features, including the ability to make emergency calls without a SIM card inserted in the phone, or while the phone's SIM card is locked, a GPS receiver that uses satellite signals to calculate the location of the phone, as well as assisted GPS to calculate phone location even more quickly. *Each of the foregoing phones transmit GPS-based location information providing the whereabouts of the phone when the phone makes an emergency call.* Each of the foregoing phones is capable of making an emergency call as a result of a voice command to the phone.[15]

As the Commission has recognized, the location accuracy rules that are cited in the infringement allegations 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

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[13] *See* Exhibit C Tendler Complaint at ¶14 (MetroPCS is a customer of TCS and TCS is an indemnifying party).
[14] As a consequence of the importance of a reliable and nationwide 911 system to national security, the FCC's Public Safety and Homeland Security Bureau has a significant role in developing 911 regulations and standards. The Department of Homeland Security also recognizes the importance of the 911 system and encourages reports through 911. "http://www.dhs.gov/xutil/contactus.shtm"http://www.dhs.gov/xutil/contactus.shtm http://www.dhs.gov/xutil/contactus.shtm
[15] *See* Exhibit D, Mosaid Complaint at ¶ 12.

receiving accurate location information."[16] If left unchecked, the use of compliance with essential mandated government requirements, such as E911 location accuracy, as a basis for a patent infringement claim by the patent holder may ultimately have the effect of obstructing the deployment of the capabilities necessary to provide the required accuracy for all forms of E911 and NG911 services. This in turn will affect not only consumers' ability to access 911 and E911 services, but also the costs that the consumers or local governments must bear.

Given the mandatory nature of the FCC's regulations, suppliers of E911 location-based services within the regulatory authority of the FCC (including VPCs such as TCS) lack the negotiating leverage they would have in a more typical market situation unhindered by such regulatory concerns. Instead, regulated companies find themselves in the position of choosing among the equally unacceptable options of: (1) violating of FCC rules; (2) accepting non-RAND licensing terms offered by E911 patent holders; (3) litigating in an attempt to invalidate the asserted claims and to fend off accusations of infringement; or (4) exiting the business altogether. TCS and/or its indemnified customers have the ability to defend against such patent infringement suits with, among other defenses, an affirmative defense under 28 U.S.C. § 1498, based on the fact that the E911 services providers acted in furtherance and fulfillment of a stated government regulation or policy and that there was only one method for compliance, *i.e.*, the method cited by the patent holder.[17] However, an affirmative defense is not a jurisdictional bar to an infringement suit.[18]

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

[17] *See* Cook at 124.

[18] *See, e.g., Toxgon Corp. v. BNFL, Inc.*, 312 F. 3d 1379, 1381 (Fed. Cir. 2002); *see also Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 554 (Fed. Cir. 1990) (citing and explaining *Sperry Gyroscope Co. v. Arma Eng'g Co.*, 271 U.S. 232, 235-236 (1926)).

Accordingly, when used as an affirmative defense, 28 U.S.C. § 1498 does not deprive a district court of jurisdiction and, thus, cannot be dealt with early in the case with a motion to dismiss under Fed. R. Civ. P. 12(b) (1). Instead, issues regarding the application of § 1498 must be resolved by summary judgment under Rule 56, typically after a lengthy and expensive discovery period.[19] Therefore, it is not surprising that the expense required to reach the summary judgment phase of a case often forces defendants to settle before the various defenses are even considered by a Court in an effort to avoid further legal fees.[20] Furthermore, because the Commission has not provided any guidance as to application of § 1498 for E911 services providers, the opposing party may still attempt to convince a court that the alleged infringement does not fall under the provisions of 28 U.S.C. § 1498, because the use is not "by or for" the U.S. government. Consequently, although a number of regulated companies have been victims of these lawsuits for some time now, they have not yet brought them to the Commission's attention, partly because the cases settle for economic (not legal) reasons and defendants are motivated by a desire to avoid encouraging even more lawsuits of this type.

The public safety community is certainly not blind to the impact of predatory IP litigation on their community and the public. For example, as the "only professional organization solely focused on 9-1-1 policy," the National Emergency Number Association ("NENA") works "to establish industry leading standards, training, and certifications" for the promotion of "effective

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[19] *Toxgon Corp.*, 312 F 3d at 1382 (citing *Crater Corp. v. Lucent Techs. Inc.*, 255 F.3d 1361, 1364 (Fed. Cir. 2001)). It is not uncommon for the case to have been litigated for 18 to 24 months before it would be proper to file an affirmative defense invoking § 1498 with all of the expenses associated with such significant litigation.

[20] In 2007, the biennial American Intellectual Property Law Association economic survey pegged actual litigation costs for *successfully defending* a patent infringement case at up to $4 million per case (for smaller cases). Other authors cite similar costs. Note that costs rise proportionally with the value of the patent rights at stake in the case; if the rights are more valuable, the litigation costs increase. Also, these are only the direct litigation costs and do not include significant company administrative and other costs (*e.g.*, costs of discovery, executive time, travel, etc.).

and efficient public safety solutions".[21] NENA has instituted an Intellectual Property Rights ("IPR") policy in which the objectives include protecting the IPR of participants and ensuring that companies implementing products and services according to NENA standards are not unreasonably inhibited by IPR licensing requirements.[22] The essence of the NENA policy is the management of IPR when industry standards regarding 911 services are being developed. Compliance entails mandatory notice to others that IPR relevant to a developing standard exists, and mandatory agreement by the IP holder that licensing will be on RAND conditions, or for free. However, not all patent holders are within the reach of NENA. For example, PAEs, which hold a large number of patents relating to 911 services, are conspicuously absent from NENA's membership. This means that the industry has limited ability to self-regulate and needs the Commission's help.

This type of litigation has begun to draw international attention and has caused the ITU has scheduled a high-level discussion to address what it characterizes as "rampant patent litigation."[23] Discussions on the relevance of current arrangements based around RAND patent policies will be the primary focus. According to the ITU, "key protocols implemented in devices sometimes encompassing hundreds of patents. If just one patent holder decides to demand unreasonable compensation for the use of its intellectual property (IP), the cost of the device in which that IP is implemented can skyrocket."[24] Dr. Hamadoun Touré, ITU Secretary-General stated:

> We are seeing an unwelcome trend in today's marketplace to use standards-essential patents to block markets. There needs to be an urgent review of this situation: patents are

[21] http://www.nena.org/?page=AboutNENA
[22] http://www.nena.org/?IPR
[23] International Telecommunication Union Press Release, "High-level ITU talks address rampant patent litigation" (July 6, 2012) http://www.itu.int/net/pressoffice/press_releases/2012/45.aspx (lasted visited July 16, 2012).
[24] *Id.*

meant to encourage innovation, not stifle it. Acknowledging patent holders and user requirements, as well as market needs, is a balancing act. This timely multi-stakeholder roundtable will help press for a resolution on some of the critical issues."[25]

It is clearly critical that the FCC act now to ensure that ongoing legal disputes do not disrupt the current E911 marketplace, impair 911 and E911 services, unnecessarily increase costs to consumers and local governments, or discourage or stifle innovation in the NG911 field. If left unaddressed by the FCC, E911 services providers will continue to be forced to endure prohibitively expensive patent lawsuits, enter into license agreements subject to unreasonable terms in order to provide services or capabilities in compliance with the FCC's standards, or risk violation of FCC rules and regulations. Moreover, the FCC runs the risk of being left behind by unfolding international events.

An affirmative statement by the Commission of the connection between and application of 28 U.S.C. § 1498 to these suits would preserve the patent rights of and fairly compensate all relevant patent holders, and provide a single logical forum for adjudication of their intellectual property rights. This statement would have the additional benefit of leveling the playing field between IP holders only interested in litigation settlement for monetization, and public safety defendants.[26] TCS respectfully urges the Commission to issue a Declaratory Ruling that the "by and for the government" and with the government's "authorization or consent" aspects of 28 U.S.C. § 1498 are met upon compliance with E911 and NG911 regulations, or in the alternative,

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[25] *Id.*

[26] See Footnotes 9 for references to the discussion of Patent Assertion Entities (PAE) and their business model for IP monetization. TCS has no desire to interfere with the legitimate rights of IP holders and their monetization efforts, and believes the application of 28 U.S.C. § 1498 supports IP holders. However, as detailed by the FTC in its report, PAEs have created an IP assertion litigation business model based upon an anomaly in the patent prosecution process that results in an unfair advantage to IP plaintiffs who negotiate against the high entry cost for IP defensive litigation. A clear statement by the FCC as to the applicability of 28 U.S.C. § 1498 would provide clarity to providers of E911 products and services (and future NG911 products and services) as to the IP litigation landscape and aid in reducing or eliminating monetary-only settlement incentives while fully preserving all IP rights and values with a willing licensee.

to adopt rules and/or publish guidance that requires the licensing of these patents pursuant to reasonable terms and conditions that are demonstrably free of any unfair discrimination.

II. DISCUSSION

A. The Commission Must Address the Repercussions to E911 of the Ongoing Litigation, and the Chilling Effect of Future Litigation on NG911

There is no question that wireless carriers must offer E911 services as a result of the Commission's rules enacted in 1996 and 1999.[27] The stated purpose of the regulations is to allow government first responders, homeland security, and other governmental public safety officials to locate 911 callers using wireless devices. As is discussed infra, under Titles I, II and III of the Communications Act, the Commission has broad authority to achieve these goals through the adoption of regulations, and has actively done so over the years.[28]

Initially, the emergence of location-based E911 services was driven neither by revenue expectations nor by a clear demand from the public but, rather, by government policies promoting the universality of emergency services. For example, regulatory requirements for emergency calls in cellular systems were first established by the Commission in 1996, when it adopted the wireless E911 rules aimed at improving the reliability of wireless 911 services, and the accuracy of the location information transmitted with a wireless 911 call, as part of an overall effort to improve public safety.[29] Such improvements enable government emergency response personnel to ensure that Public Safety Answering Points (PSAPs) receive meaningful, accurate

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[27] *See e.g.* 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 Rcd 18676 (1996) (E911 First Report and Order).

[28] *See e.g.* E911 First Report and Order at 18681; *see also*, 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 Rcd 25340, 25345-46 (2003) (E911 Scope Order).

[29] The basic 911 rules require covered carriers to deliver all 911 calls to the appropriate PSAP or a designated answering point. *See* 47 C.F.R. § 20.18(b),

location information from wireless 911 callers in order to dispatch emergency responders to the correct location and to provide assistance to 911 callers more quickly. These rules apply to all cellular, broadband personal communications service (PCS), interconnected VoIP, and certain specialized mobile radio (SMR) licensees.

Since 1996, the Commission has acted to impose E911 rules on providers of new technologies.[30] There is a strong legislative basis for the Commission's actions, beginning in 1999 when Congress, recognizing the importance of providing effective 911 service, adopted the 911 Act[31] to promote and enhance public safety through the use of wireless communications services, which directed the Commission to designate 911 as the universal emergency assistance number for wireless and wireline calls.[32] The purpose of the 911 Act was to improve public safety by encouraging and facilitating the prompt deployment of a nationwide, seamless communications infrastructure for emergency services. The 911 Act gave the FCC authority to regulate many aspects of 911 service.[33] Since that time, the Commission has affirmed and expanded on those efforts by exercising jurisdiction over other services to impose E911 requirements, relying primarily on its Title I authority.[34] That exercise of authority has been ratified, not rebuked, by Congress.[35]

Most recently, in 2008, Congress adopted the NET 911 Act.[36] This legislation extended the duty to provide 911 and E911 services as established in the 911 Act to include IP-enabled

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[30] *See generally* E911 First Report and Order, *supra*; E911 Scope Order, *supra*.
[31] Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 113 Stat. 1286 (1999) ("911 Act").
[32] *See* 911 Act § 3 (codified at 47 U.S.C. § 251(e)).
[33] *See* Linda K. Moore, *Emergency Communications: Broadband and the Future of 911*, Summary (Congressional Research Service, December 22, 2010).
[34] *See* E911 Scope Order, 18 FCC Rcd at 25345-46,¶¶ 12-16.
[35] *See* generally 911 Act; ENHANCE 911 Act of 2004.
[36] New Energy Technologies 911 Improvements Act of 2008, Pub. L. No. 110-823, 122 Stat. 2620 (2008) ("NET 911 Act")

voice services in accordance with FCC regulations, and established parity of access to communications networks necessary to complete 911 calls.[37] It also granted interconnected VoIP service providers with access to capabilities used by CMRS providers to provide E911 service from "any" entity that owns or controls such capabilities. The Commission's authority in this instance specifically includes entities over which it normally does not exercise any regulatory control.[38]

Clearly, the Commission has exercised its regulatory control where necessary to promote the deployment of efficient 911 and E911 service. In WC Docket No. 05-196, the Commission noted that "[a]lthough the Commission is committed to allowing these services to evolve without undue regulation in accord with our nation's policies for Internet services, we are, at the same time, aware of our obligation to promote 'safety of life and property' and to 'encourage and facilitate the prompt deployment throughout the United States of a seamless, ubiquitous, and reliable end-to-end infrastructure' for public safety."[39]

However, until now, the Commission has not addressed the intellectual property issues that have arisen for E911 services providers as a result of those rules. In fact, the evolution of E911 and NG911 services has had the untoward consequence of exposing those entities attempting to comply with Commission standards to a greater number of patent enforcement lawsuits.

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[37] P.L. 110-283, § 101, §§ 6(a), 6(b), 122 STAT

[38] See *In the Matter of Implementation of the NET 911 Improvement Act of* 2008, WC Docket No. 08-171 at ¶ ¶ 26-29. (Oct. 21, 2008) (" NET 911 Order")..

[39] First Report and Order and Notice of Proposed Rulemaking, *In the Matters of IP-enabled Services, E911 Requirements for IP-Enabled Service Providers*, 20 FCC Rcd 10245, 10247 (citing 47 U.S.C. § 151 and *Wireless Communications and Public Safety Act of 1999*, Pub. L. No. 106-81, 113 Stat. 1286, § 2(b) (1999) (911 Act). *See also* 911 Act, § 2(b).

As set forth in the Federal Trade Commission's March 2011 publication "The Evolving IP Marketplace," "[e]ffective patent remedies are critical to the patent system's incentives to innovate. Patent infringement interferes with a patentee's ability to realize its patent's value in the marketplace."[40] However, the FTC also notes that:

> [i]ncreasing activity by patent assertion entities (PAEs) in the information technology (IT) industry has amplified concerns about the effects of ex post patent transactions on innovation and competition. The business model of PAEs focuses on purchasing and asserting patents against manufacturers already using this technology, rather than developing and transferring technology.[41]

This business model is exactly what E911 and NG911 services providers are forced to contend with on an increasingly frequent basis. In fact, PAEs can and do use the Commission's mandatory E911 regulations against compliant carriers and their vendors in an attempt to extract licensing agreements. As a result, to avoid any possible claims of infringement, E911 services providers would be required to (a) monitor and evaluate a burdensomely large number of potential patents in this space to determine whether they should proactively seek out licenses not subject to RAND, take steps to try to invalidate the patents, and/or prepare to defend against potential patent enforcement actions; or (b) invest resources into developing newer and potentially less accurate technology or compliance methods in an effort to avoid the essential patents—which may be impossible. Obviously, the potential cost of proactively seeking out licenses not subject to RAND and/or defending against such patent enforcement actions will ultimately be passed on to consumers in the form of higher priced services. For smaller carriers, such litigious conduct is crippling, and may result in a forced exit from the marketplace.

[40] FTC Report, at p. 4
[41] *Id.* at 8.

The United States Patent and Trademark Office recently celebrated the issuance of its 8 millionth patent.[42] The concerns of the current E911 marketplace pale in comparison to the impact of PAE behavior on an NG911 world. The introduction of text, video, telematics, and other technologies into the 911 public safety and homeland security network will touch off a frenzy of patent litigation, as PAEs and other patent holders seek to monetize their intellectual property in this new marketplace. Public safety and homeland security vendors are aware of this problem. The potential financial impact of such litigious activity on this new market will give many such vendors pause before investing to support their clients in response to forthcoming Commission NG911 regulations. This will directly impact the public's safety and security – an unacceptable result, given the Commission's mission.

As the Commission is well aware, an agency may either identify on its own motion a problem such as an industry behavior that adversely affects consumers, or act upon a Petition such as this. In either case, it is now time for the Commission to address the enormous problem relating to the intellectual property issues surrounding the E911 and NG911 regulations.

B. In the Past the Commission Committed to Consider the Effect of Patent Rights on its Regulations

As early as 1961, the Commission announced that in support of its mandates under the Communications Act, in the development of "technical standards and regulations" it is important to give "consideration to the effect of patent rights" upon the process.[43] The Commission noted that its "patent policy for a number of years has been to obtain patent information whenever it becomes relevant to a particular proceeding" and expressed the expectation that "whenever it

[42]"http://www.uspto.gov/news/speeches/2011/kappos_patent_8million.jsp"http://www.uspto.gov/news/speeches/2011/kappos_patent_8million.jsp http://www.uspto.gov/news/speeches/2011/kappos_patent_8million.jsp (September 8, 2011)

[43] Revised Patent Procedures of the Federal Communications Commission, Public Notice, 3 F.C.C. 2d 26 (December 1961).

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."[44]

The need for the Commission to consider the effect of patent rights on its regulations and standards is as necessary today with regard to existing E911 and future NG911 regulations as it was fifty-one years ago when the FCC adopted its Revised Patent Procedures. If nothing else, there is an obvious need to clarify the applicability of the 1961 era procedures and determine how to best apply such procedures in connection with the mandatory rules and regulations implemented by the FCC, particularly E911 and future NG911 regulations.

Both the patent structure and Commission's regulations control entry into various markets. As a formal matter, the purpose of patents is to promote scientific and economic progress by awarding potentially lucrative limited-term monopolies in new inventions, while the purpose of the Commission's regulations is to promote public safety, such as in the case of E911 regulations or standardized implementation of new services and technology. As a practical matter, the functions of these two systems are pervasively intertwined and, thus, regulations adopted by the Commission cannot ignore the patents that may be implicated by such regulations.

C. The Commission's Past Consideration of Patents and Specific Regulations

Presumably following its 1961-era patent policy, the Commission has previously acknowledged its responsibilities pertaining to intellectual property rights used of necessity by regulated entities in order to comply with Commission standards and policy, and reasonable and nondiscriminatory approaches to deal with the same. Various past applications of the

[44] *Id.*

Commission's treatment of intellectual property relating to technical standards and regulations are described below and demonstrate that, while the Commission has not always been actively involved in the patent rights relating to adopted technical standards and regulations, it has addressed the topic and provided guidance for patent holders and communications entities in each scenario.

1. Part 68 Terminal Equipment Registration Program

The Commission made a decision to require a "standard means of connection" of terminal equipment to the network and selected hardware for the standard means of connection.[45] The Commission indicated that, in adopting the standard plugs and jacks in the rules, "a fundamental basis for adopting the designs as rule-prescribed was that the design advanced as the least expensive, most reliable, and expected to be used most often, happened to have been patented by AT&T" and they were "quite concerned that AT&T not use a patent position on standard plugs and jacks 'as a discriminatory and anticompetitive tool to thwart sales of competitors' equipment.'"[46] Thus, the Commission "adopted the AT&T-patented design in [the] rules, expressly conditioning this action (and a concomitant waiver of limiting language in the First Report) on representations made by AT&T about the level of royalties which it would require for others to manufacture the AT&T designs" and stated that such action ". . . strikes a reasonable balance between the public interest in standardization of technically and economically beneficial designs, and [the] belief that AT&T should not be able to obtain a

[45] *See e.g.* Memorandum Opinion and Order, *In the Matters of Proposals for New or Revised Classes of Interstate and Foreign MTS and WATS etc.*, 70 FCC 2d 1800 (1979).
[46] *Id.* at 1835.

discriminatory and anticompetitive advantage over its competitors in the supply of telephone equipment through the imposition of royalties."[47]

2. ANSI and Radio Equipment for Public Safety (Docket No. WT 96-86)

The Commission originally subscribed a role to the American National Standards Institute (ANSI)[48] to set the prices on patent licenses for radio equipment for public safety. When ANSI filed for reconsideration of this role, the Commission agreed that "the alternative of a self-policing policy such as the ANSI patent policy can be structured to protect adequately the rights of both intellectual property right holders and consensus standard users while at the same time encouraging competition," but recognized that the ANSI patent policy, however, may be insufficient to protect all of the parties potentially affected in cases where proprietary intellectual property rights are asserted over technology imbedded in a standard recommended by the NCC.[49] In particular, under the ANSI patent policy, an American National Standard may include patented technology if technical reasons justify that approach. However, before a standard will be approved, ANSI must receive from the patent holder a statement that the patent holder will either (a) make its technology available without compensation; or (b) license its technology to applicants under reasonable terms and conditions that are demonstrably free of any unfair discrimination.[50]

Thus, the Commission ultimately modified the language of its Order as follows:

> . . . proprietary technology may be incorporated in a standard ultimately recommended when the NCC concludes that technical

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[47] *Id.* at 1836.
[48] www.ansi.org
[49] First Memorandum Opinion and Order, *In the Matter of the Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010; Establishment of Rules and Requirements for Priority Access Service,* Docket No. WT 96-86 14 FCC Rcd 8059, 8067-68 (1999).
[50] *Id.* at 8066.

> reasons justify its incorporation, however, no intellectual property subject to a licensable proprietary right granted by patent or copyright, where the owner or holder of the right has licensed or expressed an intention to license the technology, may be included in a standard ultimately recommended unless the owner or holder of the right files a statement with the NCC prior to such recommendation which states that the owner or holder will either (a) make its technology available without compensation, or (b) license its technology to applicants under reasonable terms and conditions that are demonstrably free of any unfair discrimination.[51]

3. Commercial Mobile Alert Service (CMAS) Order (PS Docket No. 07-287)

In implementing The Worker Adjustment and Retraining Notification Act (WARN ACT), the Commission declined to require the Commercial Mobile Service Alert Advisory Committee participants, even though the Committee's participants recommended otherwise, to provide assurance with regard to licensing only because it concluded that "[t]hese requests are outside the scope of Section 602(a) of the WARN Act".[52] However, it did state that "[w]e also strongly encourage fair, reasonable, and nondiscriminatory Intellectual Property Rights (IPR) licensing in the context of the CMAS."[53]

4. DTV Issues, ATSC Standard (Docket No. 87-268)

Members of the ATSC patent pool agreed to reasonable and non-discriminatory (RAND) licensing terms during formation of the ATSC standard. The Commission noted that ". . . licensing of the patents for DTV technology will not be an impediment to the development and

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[51] *Id.* at ¶ 8068.
[52] First Report and Order, *In the Matter of Commercial Mobile Alert System*, 23 FCC Rcd 6144, 6160 (2008). ¶ 38.
[53] *Id.*

deployment of DTV products for broadcasters and consumers" and that "adoption of this standard is premised on reasonable and nondiscriminatory licensing of relevant patents . . . ."[54]

"We remain committed to this principle" of reasonable and nondiscriminatory licensing of relevant patents "and if a future problem is brought to our attention, we will consider it and take appropriate action."[55] In explaining its position as related to digital television (DTV), the Commission has noted, "[i]n order for DTV to be successfully implemented, the patents on the technology would have to be licensed to other manufacturing companies on reasonable and nondiscriminatory terms...We reiterate that adoption of this standard is premised on reasonable and nondiscriminatory licensing of relevant patents."[56]

In summary, the Commission has previously recognized and exercised its authority to ensure the availability of intellectual property rights on reasonable terms and conditions whenever an important technological standard for a vital public good was at stake. This is exactly the case with E911 services and will be the case for future NG911 services. No public good is more important than the public's safety and security, as evidenced by the public's reliance on 911. The Commission, via authority and precedent, has the right to prevent abuse of its authority in the enforcement of intellectual property rights that impact 911 services.

D. The Commission Should Invoke 28 U.S.C. § 1498

The Commission should provide guidance as to the applicability of 28 U.S.C. § 1498 in these situations by stating (a) that E911 and NG911 location-based services are in furtherance and fulfillment of a stated Government policy; (b) that it is aware that its stated policy may require application of a patent if an E911 services provider is to comply with FCC regulations;

[54] Fourth Report and Order, *In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, 11 FCC Rcd 17771, 17794 (1996).
[55] *Id.*
[56] *Id.*

and (c) that E911 and NG911 location-based services are used with the authorization and consent of the Government and, as such, the proper forum for licensing patent rights related to mandatory obligations for E911 and future NG911 is the U.S. Court of Claims.[57] Such guidance would be of enormous value.[58]

As noted previously, 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.
>
> . . .
>
> 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.

With regard to the application of the §1498 standards, the Courts have held that "[a] use is 'for the Government' if it is 'in furtherance and fulfillment of a stated Government policy' which serves the Government's interests and which is 'for the Government's benefits.'"[59] Section 1498 does not require "authorization or consent" to take any specific form.[60] Moreover,

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[57] *See generally Madey*, 413 F. Supp. 2d at 607.

[58] *See* Office of Management and Budget "Final Bulletin for Agency Good Guidance Practices" 72 Fed. Reg. 3432 (January 25, 2007). "Well-designed guidance documents serve many important or even critical functions...Agencies may provide helpful guidance to interpret existing law through an interpretative rule...Guidance documents, used properly, can...increase efficiency, and enhance fairness by providing the public clear notice of the line between permissible and impermissible conduct while ensuring the equal treatment of similarly situated parties."

[59] *Id.*

[60] *Id.* at 609.

"authorization or consent" does not require direct communication.[61] The statute may be implicated where the government has impliedly consented to the infringement by demonstrating an awareness of the evidence of the patents that will be necessarily infringed.[62] Similarly, government authorization can be implied where an entity has to comply with specific requirements set forth in government procedures.[63] Consequently, under § 1498 an entity may be found to have acted "for the Government" even though the government did not explicitly direct it to infringe and no formal contract existed with the Government.[64]

Consistent with the case law, §1498 applies in this instance because the FCC has prescribed by regulation the E911 standards upon which the infringement claims are based and has required that wireless carriers and E911 service providers implement them. Furthermore, the implementation of these standards is in furtherance of an important government function—providing E911 emergency services "for the purpose of promoting safety of life and property through the use of wire and radio communication."[65] The plain language of §1498 unambiguously applies to the Commission's E911 and future NG911 regulations. 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."[66] Such is clearly the case here, 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.

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[61] *Bereslavsky v. Esso Standard Oil Co.*, 175 F. 2d 148, 150 (4th Cir.1949).
[62] *Madley* , 413 F. Supp. 2d at 617-618. *See also* Cook at 125.
[63] *See TVI Energy Corp. v Blane* 806 F.2d 1057, 1060 (Fed. Cir. 1986) (*e.g.* bidding procedures).
[64] *Id.*
[65] 47 U.S.C. § 151.
[66] *Advanced Software Design Corporation v. Federal Reserve Bank of St. Louis*, No. 07-CV-185, 2007 U.S. Dist. Lexis 83538 at *11 (E.D. Mo. 2007).

The purposeful intertwining of 28 U.S.C. § 1498 and the E911 regulations and future NG911 regulations will not unreasonably inhibit current or future holders of patents relating to E911 or NG911. Nor will such action unduly or inappropriately burden the Commission's purpose and responsibilities with respect to the E911 regulations and future NG911 regulations. In fact, by integrating 28 U.S.C. § 1498 into the E911 regulations and future NG911 regulations, reasonable royalties are preserved for an intellectual property rights holder and the licensing negotiations are theoretically simplified because there is only one convenient forum instead of dozens of separate and expensive causes of action. Furthermore (and perhaps more importantly), compliance with E911 regulations and future NG911 regulations would not be unduly or inappropriately burdened by the potential or actual existence of patents relating to these regulations.

It would be unfortunate for the Commission to fail to act at least in this minimalist fashion in order to ensure that public safety vendors are not unjustly driven from the industry.

E. The Commission Has Authority to Act Under Title I And The NET 911 Act to Require RAND Licensing

In the alternative, as demonstrated above, the Commission has the necessary ancillary authority under Title I to require that current E911 and future NG911 patents be licensed subject to RAND terms and conditions and in the past has required such pricing where necessary to promote important Commission goals. The Commission has broad authority with regard to the provision of 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 and the regulations are reasonably ancillary to the Commission's

effective performance of its statutorily mandated responsibilities.[67] The capabilities, systems and methodologies in question are part and parcel of the network elements, features, and processes necessary for compliance with Commission E911 standards—situations very similar to those faced by the FCC in both the DTV and public safety radio cases. Consequently, Commission action regarding the terms of patent licenses is appropriate in order to assure the unobstructed and reliable provision of E911 services.[68]

Additionally, under the NET 911 Act,[69] the Commission has broad authority to adopt regulations to implement the legislation, the purpose of which is to require "each IP-enabled voice service provider...to provide 911 and E911 service in accordance with Commission existing requirements."[70] Ensuring that TCS' interconnected VoIP customers have access to the 911 and E911 capabilities that they need is both a critical requirement of the NET 911 and an essential element of the FCC's regulatory regime. The technologies, systems and methodologies that are subject to the assertions of patent infringement are capabilities "typically...required in most local 911 and E911 architectures."[71] Moreover, these capabilities are "necessary for the interconnected VoIP provider to provide E911 service in compliance with the Commission's rules."[72] They are part and parcel of the network elements, features, processes, and agreements necessary for the provision of E911 service.[73]

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[67] Am. Library Ass'n v. FCC, 406 F.3d 689, 700 (D.C. Cir. 2005).
[68] This proposal is fair to the putative patent holders because at most they would be entitled to reasonable royalty or license fees. Such fees are defined as the amount that "the parties would probably have agreed on if the plaintiff was willing to grant a license and the defendant wished to obtain one, neither party being compelled to do so, and both parties reasonably endeavoring to reach an agreement." *C.J.S. Patents* § 745.
[69] New Energy Technologies 911 Improvements Act of 2008, Pub. L. No. 110-823, 122 Stat. 2620 (2008) ("NET 911 Act")
[70] NET 911 Order at ¶ 3..
[71] *Id.* at ¶ 23.
[72] *Id.* at ¶ 25.
[73] *Id.* at ¶ 27.

The patent holders are entities that own or control these capabilities and are therefore subject to FCC jurisdiction with regard to the rates, terms and conditions of access to these capabilities.[74] Section 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.[75] This provision applies to any entity that owns or controls the capabilities and not just to the carriers typically regulated by the Commission.[76] 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.

Unfortunately, in the NET 911 Order, the Commission based its test of the reasonableness of proposed pricing in the first instance on whether the E911 capabilities were available to CMRS carriers on similar terms and conditions. However, as the FCC acknowledged, this was only "[o]ne indicia of reasonableness."[77] Moreover, the Commission never really considered the present situation in which, due to overwhelming litigation (mostly initiated by PAEs), the capabilities so necessary for the provision of E911 services may be simply unavailable to all on a reasonable basis. In this Petition, TCS is asking the Commission to modestly expand its ruling to more generally require that the IPR rights for E911 capabilities must in all instances be licensed on reasonable and non-discriminatory terms as long as the

[74] *Id.* at ¶¶ 28-34.
[75] 47 U.S.C. § 9.7. *See also* Net 911 Order. at ¶ 31 ["those rates, terms, and conditions must in *all instances be reasonable.*" (Emphasis in original)].
[76] NET 911 Order at ¶ 28.
[77] *Id.* at ¶ 31.

capability is for the purpose of providing 911 or E911 service in accordance with the Commission's rules.

Finally, Federal law supports the Commission in development and enforcement of an IPR policy. For example, the National Technology Transfer and Advancement Act (NTTAA) of 1995,[78] directs all federal government agencies to use, wherever feasible, standards and conformity assessment solutions developed or adopted by voluntary consensus standards bodies in lieu of developing government-unique standards or regulations. The NTTAA also requires government agencies to participate in standards development processes, given that such involvement is in keeping with an agency's mission and budget priorities.

Thus, in the alternative, TCS merely requests at this time that the Commission opine on its involvement in the licensing of essential patents as it has done in the past with regard to other adopted standards, regulations, and the U.S.C. In short, TCS requests that the Commission reaffirm that it has legal authority, both direct and ancillary, to establish licensing requirements for E911 and NG911 patents and that such authority also confers on the Commission the ability to dictate RAND licensing terms.

Conclusion

TCS' request is designed to further the Commission's long-standing public safety and homeland security goals related to E911 and NG911. TCS believes that in addition to imposing E911 and NG911 obligations on communications entities, the Commission must also take the necessary steps to promote cooperative efforts by all involved including state and local governments, PSAP administrators, and E911 services providers, as well as by those entities owning or controlling essential patents. Accordingly, TCS requests the Commission to adopt a

[78] Pub. L. No. 104-113.

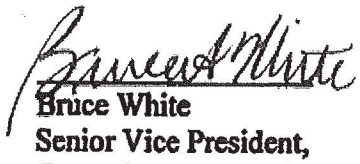
balanced approach to the E911 and future NG911 regulations that takes into consideration the expectations of consumers, the need to strengthen Americans' ability to access public safety in times of crisis, and the needs of entities offering these innovative services.

The Commission has express authority under Title I and the NET 911 Act to craft policies to prevent disruption of 911 services through the manipulation of IP rights by promoting the fair and equitable application of the IP in question. Moreover, there is ample Commission precedent for the exercise of jurisdiction over intellectual property rights as they relate to or impact upon vital Commission policies such as 911 (and, in the future, NG911), and the industry is without a reliable self-regulation in the absence of the Commission's authority. In fact, it is a natural extension of the Commission's responsibility to protect and serve the public interest to invoke 28 U.S.C. § 1498 when an IP holder seeks to use the Commission's 911 regulations as justification for IP rights enforcement.

For the reasons set forth above, TCS respectfully requests that the Commission immediately issue a public notice seeking comment on this Petition.

Respectfully submitted,

TeleCommunication Systems, Inc.



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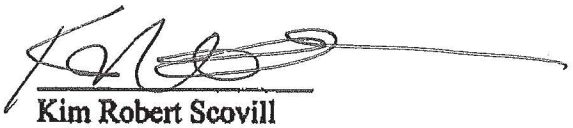

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Dated July 24, 2012

Annex A – Proposed Rules

The following new sections to Part 47 of the Code of Federal Regulations are added to read as follows:

47 C.F.R. § 9.7(d):

All intellectual property rights required by entities subject to the provisions of this Section in order to comply with the requirements herein shall be licensed on reasonable terms and conditions that are demonstrably free of any unfair discrimination so long as the rights are used for the purpose of providing 911 or E911 services in accordance with the Commission's rules.

47 C.F.R. § 20.18(n):

All intellectual property rights required by entities subject to the provisions of this Section in order to comply with the requirements herein shall be licensed on reasonable terms and conditions that are demonstrably free of any unfair discrimination so long as the rights are used for the purpose of providing 911 or E911 services in accordance with the Commission's rules.

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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March 25, 2013

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]henever 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 Ggovernment" 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

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.

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

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[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 Rcd 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 Rcd 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

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[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 situation[11] 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]

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[13] Wireless 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 Sevenson 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

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[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

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[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 it 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

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[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

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[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.

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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]
800 Adept, Inc. v. AT&T Mobility LLC et al. 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.	✓		✓
EMSAT Advanced Geo-Location Technology, LLC et al. v. T-Mobile USA, Inc. 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]
EMSAT Advanced Geo-Location Technology, LLC et al. v. Sprint Spectrum L.P. et al. 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.			
EMSAT Advanced Geo-Location Technology, LLC et al. v. Cellco Partnership 4:08-cv-816 Northern District of Ohio Complaint filed 3/31/08	Cellco Partnership d/b/a Verizon Wireless		19 months	

[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.

EXE T A

Case Name	Defendants	§ 1498 Defense Asserted[1]	Time to Summary Judgment Motion[2]	Case Disposition Before Summary Judgment[3]
EMSAT Advanced Geo-Location Technology, LLC et al. vs. Alltel Corp., et al. 4:08-cv-821 Northern District of Ohio Complaint filed 3/31/08	Alltel Corp.		19 months	
	Alltel Communications, LLC			
EMSAT Advanced Geo-Location Technology, LLC v. AT&T Mobility LLC 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.	✓		

[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]
EMSAT Advanced Geo-Location Technology, LLC et al. v. MetroPCS Communications, Inc. et al. 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)		✓
EMSAT Advanced Geo-Location Technology, LLC et al. v. United States Cellular Corporation 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	

[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.

EXH .T A

Case Name	Defendants	§ 1498 Defense Asserted[1]	Time to Summary Judgment Motion[2]	Case Disposition Before Summary Judgment[3]
Tendler Cellular of Texas, LLC v. AT&T Mobility, LLC et al. 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.	✓		✓

[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]
EMSAT Advanced Geo-Location Technology, LLC et al. v. Virgin Mobile USA, L.P. et al. 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.	✓		✓

[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.

Case Name	Defendants	§ 1498 Defense Asserted[1]	Time to Summary Judgment Motion[2]	Case Disposition Before Summary Judgment[3]
TracBeam, L.L.C. v. AT&T Inc. et al. 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		

[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]
Mosaid Technologies Inc. v. Sony Ericsson Mobile Communications (USA) Inc. et al. 1:11-cv-00598 District of Delaware Complaint filed 7/7/11	Sony Ericsson Mobile Communications (USA) Inc.		22 months	
	HTC America Inc.			
Cassidian Communications, Inc. v. microDATA GIS, Inc. 2:12-cv-00162 Eastern District of Texas Complaint filed 3/6/12	microDATA GIS Inc.		18 months	
	Microdata LLC			
	TeleCommunication Systems, 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.

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**

REPLY COMMENTS OF TELECOMMUNICATION SYSTEMS, INC.

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April 8, 2013

SUMMARY

In its Petition and Comments in this proceeding TeleCommunication Systems, Inc. ("TCS") has brought to the Commission's attention the growing problem caused by patent infringement lawsuits, filed mostly by Patent Assertion Entities ("PAEs"), against E911 services providers alleging infringement based primarily on the fact that the defendants are in compliance with the Commission's 911 and E911 regulations. These lawsuits have become very burdensome, threaten the continued deployment of E911 and will have an even more serious impact on the deployment of NG911.

The comments of the parties actually providing 911 and E911 services make clear that the problem is real, serious and growing. PAEs are using the leverage created by services providers' need to comply with mandatory Commission regulations to extract settlements from 911 and E911 services providers who if they do not "pay up" face the choices of enduring costly litigation, the threat of an injunction or simply leaving the market. Further, as one commenter noted this Texas "two-step" caused by "tortured" patent claims has only begun and will get worse as the Commission moves to implement NG911.

In its Petition TCS seeks guidance, in the form of an interpretative order or opinion, statement of policy, or otherwise, regarding the relevance of elements of 28 U.S.C. § 1498 in the context of the Commission's regulations under 47 C.F.R. §§ 9.7 and 20.18. In the alternative, TCS requests that the Commission amend its rules to provide that owners or controllers of capabilities that can be used for 911 and E911 service must make those 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.

With respect to 28 U.S.C. § 1498, TCS seeks guidance that: (a) based on 47 C.F.R. §§ 9.7 and 20.18 and Commission precedent, the provision of E911 and NG911 location-based services is in furtherance and fulfillment of a stated Government policy; (b) 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) E911 and NG911 location-based services are used with the authorization or consent of the Government. In a time of abundant patent litigation related to the E911 and NG911 services, such guidance would bring clarity to E911 and NG911 location-based service providers, companies that desire to enter the market, and courts charged with handling this litigation.

Finally, in adopting § 9.7 of its rules, the Commission asserted jurisdiction over the owners and controllers of 911 and E911 capabilities (including TCS) and required that they make those capabilities available to interconnected VoIP service providers on a FRAND basis. In its Petition, TCS is simply asking the Commission to expand this requirement to apply to 911 and E911 capabilities made available to CMRS providers and the 911 and E911 services providers such as TCS which provide them the underlying capabilities. This amendment would serve to discourage frivolous PAE lawsuits while at the same time being fair to legitimate patent owners who would still receive fair compensation. Moreover, it would not involve the Commission in making decisions regarding the validity of patents. No party has come forward with a strong argument as to why the Commission should not make this change to its rules.

TABLE OF CONTEN

SUMMARY i

INTRODUCTION 2

I. TCS Requests Guidance as to the Relevance of 28 U.S.C. § 1498 to Patent Infringement Claims Involving 911 Services 4

A. FCC Guidance Is a Necessary Roadmap for E911 and Future NG911 Regulations 7

B. E911 and NG911 Location-Based Services Are "For the Government" According to § 1498 9

C. § 1498 Does Not Apply Only to Federal Contractors Operating Under a Contract 10

D. The Government Is Not Being Asked to Accept Liability for Commercial Applications of Location-Based Technology 12

E. § 1498 Is Not Limited To Instances Where the Government Requires by Specification that a Supplier Infringe Another's Patent 14

F. Legislative Efforts Do Not Address the Issues in the Petition 15

II. The FCC Has Previously Imposed a FRAND Requirement on 911 and E911 Services 16

CONCLUSION 17

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**

REPLY COMMENTS OF TELECOMMUNICATION SYSTEMS, INC.

TeleCommunication Systems, Inc. ("TCS") hereby submits the following Reply Comments in response to the Federal Communications Commission's ("FCC" or "Commission") Public Notice seeking comments in the above-referenced proceedings.[1] In its Comments filed March 25, 2013 ("Comments"), TCS discussed in greater detail its requests to the FCC in order to address the manner in which various parties might misconstrue its proposals. In this round,

[1] 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"").

TCS further supports its initial comments and seeks to address the opposing comments filed with respect to: (a) TCS' request for guidance on 28 U.S.C. § 1498, and (b) TCS' proposal 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 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.

INTRODUCTION

It is clear from the comments of the parties that actually provide 911 and E911 services that TCS has identified a problem which "has been plaguing the industry for years,"[2] and which must be addressed by the FCC.[3] The commenting parties that are actually on the "firing line" of providing 911 and E911 services also made clear that the remedies sought by TCS are appropriate.

As Sprint Nextel noted in support of TCS' Petition, the recurring infringement lawsuits of which TCS complains "have the potential to cause disruption, delay, or the inability to deliver services, all as a result of compliance with government-mandated regulations."[4] Patent Assertion Entities ("PAEs") use the leverage created by the mandatory nature of the FCC regulations "to file suit and then to extract settlements from E911 vendors, service providers and carriers, who settle to avoid the untenable outcome that a court may issue an injunction and thereby inhibit activities necessary to provide E911 service."[5] According to MetroPCS, in many cases the

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[2] Comments of MetroPCS Communications, Inc. at 3 ("MetroPCS Comments"").
[3] Comments of SAP in Response to TCS' Petition for Declaratory Ruling and/or Rulemaking at 9 ("SAP Comments").
[4] Comments of Sprint Nextel Corporation at 2-3 ("Sprint Nextel Comments").
[5] *Id.* at 3.

patents are "tortured" into actions targeting Commission mandated services.[6] So constructed, these lawsuits create significant road blocks, and even though they may lack merit, they "have the very real detrimental impact of diverting valuable resources—time, management attention, capital and money—from other important endeavors" most importantly the ultimate goal of providing reliable and accurate E911 service.[7] Similarly, this E911 patent "two-step" is just beginning, given the looming NG911 mandates.[8]

The comments also made clear that not just CMRS carriers are at risk. Sprint Nextel recognized that 911 solutions vendors such as TCS are critical to the future of NG911 deployment, and that they have been particularly affected by these lawsuits, and further that their ability to develop and deploy E911 and NG911 technologies has been seriously impaired.[9] The Texas 9-1-1 Entities indicated that the patent lawsuits also represented a growing concern for public entities such as themselves "related to provisioning 9-1-1 location and emergency services."[10]

With regard to TCS' proposed remedies, CTIA stated that if the Commission wishes to ensure a vibrant wireless ecosystem that continues to foster public safety initiatives, then it must grant TCS' request and clarify that 9-1-1 location services are in furtherance and fulfillment of a stated government policy and confirm that it is aware that this policy may require the application of a patent to comply with 9-1-1 regulation.[11] The Texas 9-1-1 Entities urged the Commission to consider TCS's FRAND proposal.[12] SAP submits that imposing a FRAND commitment on

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[6] *See* MetroPCS Comments at 8.
[7] *Id.* at 1-4.
[8] *Id.*
[9] *Id.* at 4.
[10] Comments of the Texas 9-1-1 Entities at 2 ("Texas 9-1-1 Entities Comments").
[11] Comments of CTIA—The Wireless Association at 8 ("CTIA Comments").
[12] Texas 9-1-1 Entities Comments at 4.

PAEs would curtail their ability to engage in predatory patent infringement lawsuits, without harming the legitimate patent rights of innovative operating companies.[13]

MetroPCS proposes another remedy which is worthy of consideration. It recommends that the Commission find that "because E911 services are provided by wireless carriers to the public without charge, wireless carriers obtain no monetary benefit from the use of the patent for the provision of E911 services."[14] Such a finding, which is consistent with the facts, would eliminate PAEs' arguments regarding damages and discourage lawsuits based primarily on claims that compliance with FCC 911 and E911 mandates amounts to patent infringement.[15]

I. TCS Requests Guidance as to the Relevance of 28 U.S.C. § 1498 to Patent Infringement Claims Involving 911 Services

First and foremost, TCS seeks guidance, in the form of an interpretative order or opinion, statement of policy, or otherwise, regarding the relevance of elements of 28 U.S.C. § 1498 in the context of the Commission's regulations under 47 C.F.R. §§ 9.7 and 20.18. Specifically, TCS seeks guidance that: (a) based on 47 C.F.R. § 9.7 and § 20.18 and Commission precedent, the provision of E911 and NG911 location-based services is in furtherance and fulfillment of a stated Government policy; (b) 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) E911 and NG911 location-based services are used with the authorization or consent of the Government. TCS does not seek anything more. In other words, TCS does not, as characterized by one commenter, seek a ruling asking "the Commission to interpret . . . 28 U.S.C. § 1498, to *require* patent infringement actions between private companies involving wireless location

[13] SAP Comments at 2.
[14] MetroPCS Comments at 3.
[15] *Id.* at 10.

technologies used to comply with the FCC's current E911 regulations and future NG911 regulations to be litigated in the Court of Federal Claims."[16]

Given the complexity of the issue, TCS has captioned its Petition alternatively under § 1.2 and/or § 1.401 of the Commission's rules. Section 1.2 provides that on motion the Commission may issue a declaratory ruling removing uncertainty—clearly there is uncertainty here that needs to be removed. Section 1.401 provides that a person may petition for amendment of a rule or regulation—which TCS has done.

Regardless of the stylistic captioning of TCS' Petition, the substance of TCS' request for guidance is clear and appropriate and that, not the caption, is what is at issue. Furthermore, contrary to the assertions of Qualcomm, TCS' request for guidance does not violate the Administrative Procedure Act ("APA").[17] It is well established under the APA that administrative agencies may issue guidance through policy statements, interpretative opinions, and by various other means.[18] The actual form in which the Commission should give the guidance is one left to agency discretion. For example, TCS' Petition leaves the Commission with the flexibility to issue the requested guidance in the form of an interpretative order or opinion, a statement of policy, or otherwise. Finally, while not mandatory, the better practice is for an agency to seek notice and comment before issuing guidance on significant issues as the Commission has done in this instance.[19]

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[16] *See* Opposition of Qualcomm Incorporated to TeleCommunication Systems Inc. Petition for Declaratory Ruling and/or Rulemaking at 7 (emphasis added) ("Qualcomm Comments").

[17] *Id.* at 10-11.

[18] *See e.g. Pacific Gas and Electric Co. v. Federal Power Commission*, 506 F.2d 33 (D.C. Cir. 1974) (An agency may issue guidance through a Statement of General Policy in the form of an Order). (*"PGE"*).

[19] According to the Administrative Conference of the United States, "[b]efore an agency issues, amends, or repeals an interpretive rule of general applicability or a statement of general policy which is likely to have substantial impact on the public, the agency normally should utilize the procedures set forth in Administrative Procedure Act subsections 553(b) and (c), by publishing the proposed interpretive rule or policy statement in the Federal Register, with a concise statement of its basis and purpose and an invitation to interested persons to submit written comments, with or without opportunity for oral presentation." Administrative Conference of the United States,

The FCC has provided guidance in the past and has authority to do so now.[20] In fact, the Office of Management and Budget ("OMB") has recognized that such agency guidance can be of tremendous value.[21] Agency guidance documents, also known as "policy statements" under § 553 (a) of the APA"[22] "come with a variety of labels and include guidance, guidelines, manuals, staff instructions, opinion letters, press releases or other informal captions."[23] According to the Administrative Conference of the United States ("ACUS"):

> Policy statements that inform agency staff and the public regarding agency policy are beneficial to both. While they do not have the force of law (as do legislative rules) and therefore can be challenged within the agency, they nonetheless are important tools for guiding administration and enforcement of agency statutes and for advising the public of agency policy.[24]

Contrary to the assertions implicit in Qualcomm's arguments,[25] the type of guidance sought by TCS does not fall within the category of a binding regulatory action under § 553 of the APA. Instead, as noted by OMB, such guidance reflects "an agency statement of general applicability and future effect, other than a regulatory action (as defined in Executive Order 12866, as further amended), that sets forth a policy on a statutory, regulatory, or technical issue or an interpretation of a statutory or regulatory issue."[26] It "is not finally determinative of the issues or rights to which it is addressed"[27] and would not represent a FCC determination as to the

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Recommendation 1976-5, *Interpretative Rules of General Applicability and Statements of General Policy*, at 1-2 (Adopted December 9-10, 1976) ("ACUS").

[20] *See e.g. In the Matter of Industry Guidance On the Commission's Case Law Interpreting 18 U.S.C. § 1464 and Enforcement Policies Regarding Broadcast Indecency*, FCC 01-90, File No. EB-00-IH-0089 (rel. April 6, 2001).

[21] "As the scope and complexity of regulatory programs have grown, agencies increasingly have relied on guidance documents to inform the public...Well-designed guidance documents serve many important or even critical functions in regulatory programs." *Final Bulletin for Agency Good Guidance Practices*, Office of Management and Budget, Executive Office of the President 72 Fed. Reg. 3482 (January 25, 2007) ("OMB GGP Bulletin")..

[22] 5 U.S.C. § 553 (a).

[23] ACUS Recommendation 1992-2, *Agency Policy Statements*, at 1 (Adopted June 18, 1992).

[24] *Id.* at 1.

[25] *See e.g.* Qualcomm Comments at 7.

[26] OMB GGP Bulletin at 3434.

[27] *PGE*, *supra*, at 38.

ultimate applicability of § 1498 or the validity of a patent. Those decisions would be left to the courts.

However, the FCC would be expressing its views regarding the applicability and interpretation of critical policies and regulations adopted by it. As discussed below, in this context, FCC guidance would be helpful not only to the courts, but also to the markets, because "the publication of a general statement of policy facilitates long range planning within the regulated industry and promotes uniformity in areas of national concern."[28] Moreover, given the importance of the regulations at issue, FCC action is both necessary and appropriate in this instance because "although guidance may not be legally binding, there are situations in which it may reasonably be anticipated that a guidance document could lead parties to alter their conduct in a manner that would have... an economically significant impact."[29] Such is the case here.

A. FCC Guidance Is a Necessary Roadmap for E911 and Future NG911 Regulations

As addressed in its Petition, initial Comments, and in this filing, action by the FCC is necessary to remove uncertainty for current 911 service providers and provide a roadmap for companies operating in the 911 and E911 space, and for companies desiring entry into the market. The unreasonable patent licensing actions taken by some location-based technology patent holders have and continue to threaten the ongoing development of the E911 and NG911 industry. Indeed, contrary to several commenters' assertions, Commission action would clearly be in the public interest. Failing to at least consider the implications of inaction on 911 and E911 services providers who must comply with the FCC's regulations and then are accused of patent infringement based on their compliance does not promote business. It blindly protects the

[28] *Id.*
[29] OMB GGP Bulletin at 3435.

abusive tactics of certain patent holders while forcing service providers to choose between complying with a government mandate (and thereby incurring enormous expenses in defending against patent infringement litigation or unreasonable licensing demands) and neglecting to comply with a federal mandate (and risking the associated consequences, *e.g.,* fines and possibly going out of business).

Several commenters criticize TCS for proposing a solution based on § 1498 that purportedly lacks sufficient certainty to resolve the problem. TCS respectfully disagrees. The problem addressed in the Petition with respect to the relationship of § 1498 and the Commission's 911 and E911 and future NG911 regulations is relatively narrow, but, if addressed by the FCC, will remove uncertainty for companies currently operating in the 911 and E911 space and those seeking to enter the existing and new NG911 markets.[30]

For example, when a defendant asserts the § 1498 defense in answer to a patent infringement allegation, courts generally start the analysis by considering: (1) the patented technology, and (2) the government's involvement with that technology.[31] For a defendant that is a private, non-governmental entity, courts next analyze whether use of the technology was "for the Government" and "with the authorization or consent of the Government."[32] If a court finds that use of patented technology was for the Government and with the Government's authorization or consent, the court will conclude that if the patent holder has any cause of action, it will be against the government in the Court of Federal Claims. It is this second component of the

[30] As TCS requested in its Petition and reaffirmed in its Comments, TCS is "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." TCS Comments at 2. TCS is not asking the Commission to cast a wide net over all location-based services such that services providers are automatically immune from infringement allegations. Indeed, TCS is **not**, as one commenter incorrectly asserted, seeking a "declaratory ruling that patent disputes between private disputes involving technology used to meet E911 and NG911 public safety regulations must be brought in the Court of Federal Claims." Qualcomm Comments at 19.

[31] *Advanced Software Design Corp. v. Fed. Reserve Bank of St. Louis*, 583 F.3d 1371, 1373 (Fed. Cir. 2009).

[32] *Id.* at 1375-1376.

analysis that provides a meaningful benefit to the market. In other words, guidance from the Commission on the relationship between § 1498 and 47 C.F.R. §§ 9.7 and 20.18 would help to remove existing uncertainty for current services providers and those seeking to enter the market as to whether § 1498 is a plausible defense to consider in response to a patent infringement claim. Indeed, while the proposed guidance may not be legally binding, current services providers and those seeking to enter the market (either as an operator or a patent licensor) may alter their conduct in response to the guidance in a manner that would have an impact on the market. In addition, the guidance would provide a court with more than just the parties' application of the facts to established § 1498 case law—the court would also be able to consider the Commission's characterization of the relationship between § 1498 and 47 C.F.R. §§ 9.7 and 20.18 as an expert agency as a part of the overall analysis.

In sum, this is not, as characterized by one commenter, a faster and legally-clever fix to prevent all location-based patent infringement suits between private companies and shift the liability to the government. In fact, the guidance requested by TCS will not and was never intended to put an end to all patent litigation in the location-based technologies arena or, even more particularly, in the location-based technologies used for 911 space. Rather, TCS is requesting guidance to remove existing uncertainty surrounding the relationship between § 1498 and compliance with 47 C.F.R. §§ 9.7 and 20.18 (and future NG-911 regulations) in litigation between private parties.

B. E911 and NG911 Location-Based Services Are "For the Government" According to § 1498

As stated in TCS' Petition, the E911 and NG911 location-based services "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.'"[33]

Indeed, the federal government benefits directly from the provision of E911 location-based services. For example the federal government operates PSAPs that directly receive E911 calls. Further, governmental entities such as the Federal Emergency Management Agency (FEMA) and the Department of Homeland Security (DHS) rely on wireless 911 services during national emergencies and disasters. Federal employees, such as those working for the Federal Bureau of Investigations and Secret Service, rely on their wireless devices to perform their emergency relief and law enforcement duties.

Just as courts consistently find that benefits to national security and a well-functioning military and/or Treasury are "for the Government,"[34] E911 and NG911 location-based services are "for the Government" within the meaning of § 1498.

C. § 1498 Does Not Apply Only to Federal Contractors Operating Under a Contract

Courts have made clear that a contract is not necessary for a technology use to be "for the government." For example, the District Court of Delaware recently summarized the current state of the law on this question by finding that:

- "[t]he Court does not read *Sevenson* to impose a requirement under § 1498 that all accused activity must be subject to an existing contract";[35]

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[33] Petition at 4-5.

[34] For example, a satellite communication system was considered to benefit United States military defense and security, and, thus, was found to be "for the Government" within the meaning of § 1498. *Hughes Aircraft Co. v. United States*, 534 F.2d 889, 899 (Ct. Cl. 1976). Similarly, making, selling, offering to sell, using, and/or importing a ballistics shield to governmental and public entities was "for the Government" within the meaning of § 1498. *Defenshield Inc. v. First Choice Armor & Equip, Inc.*, No. 5:10–CV–1140, 2012 WL 1069088, at *6 (N.D.N.Y. Mar. 29, 2012).

- "[t]he Federal Circuit's opinion in *Advanced Software* further makes it clear that no contract is required in order for an accused infringer's conduct to come within the scope of § 1498";[36] and
- "[t]he Federal Circuit expressly rejected the suggestion that a government contract was required, holding that, '[t]he district court correctly ruled that § 1498(a) does not require that the government be party to any contract, but may apply to activities by 'any person, firm, or corporation' for the benefit of the government.'"[37]

For instance, courts have consistently found that § 1498 applies even when competitors are in the bidding process. As the Federal Circuit explained, "[t]he significant point is that [the defendant] was *required* to demonstrate the allegedly infringing targets as part of the Government's bidding procedure."[38] In this aspect, the infringement occurred due to compliance with the government's bidding requirements and, thus, the Court held that "we can come to no other conclusion than [] this demonstration fell within the scope of § 1498 as being 'for the United States' and 'with its approval.'"[39]

Indeed, courts have held that § 1498 should be read broadly in the bidding context. For example, "the Federal Circuit has "reaffirmed the broad nature of § 1498 in the bidding context, and held that 'a patent owner may not use its patent to cut the government off from sources of supply, either at the bid stage or during performance of a government contract.'"[40] "Rather, "§ 1498 shield[s] the subcontractor from liability during the bidding process because '[r]equiring a

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[35] *BAE Sys. Info. and Elec. Sys. Integration Inc. v. Aeroflex Inc.*, No. 09–769–LPS, 2011 WL 3474344, at *10 (D. Del. Aug. 2, 2011).
[36] *Id.* (citing *Advanced Software*, 583 F.3d at 1376).
[37] *Id.* (quoting *Advanced Software*, 583 F.3d at 1378).
[38] *TVI Energy Corp .v. Blane*, 806 F.2d 1057, 1060 (Fed. Cir. 1986).
[39] *Id.*
[40] *Hutchinson Indus. Inc. v. Accuride Corp.*, No. 09–1489, 2010 WL 1379720, at *8 (D.N.J. Mar. 30, 2010) (quoting *Trojan, Inc. v. Shat–R–Shield, Inc.*, 885 F.2d 854, 856–57 (Fed. Cir. 1989).

government contractor to receive a purchase order with the necessary authorization and consent clauses before even beginning the initial design and development work would impair the efficiency and quality of the current contracting system.'"[41]

Similarly, requiring private parties to comply with a government mandate without confirming such compliance is with authorization and consent would "impair the efficiency and quality" of the 911 and E911 service systems. TCS does not call for a change in the law. TCS merely asks the FCC to provide guidance to the market as to the relationship between § 1498 and the FCC's regulations.

D. The Government Is Not Being Asked to Accept Liability for Commercial Applications of Location-Based Technology

TCS recognizes that, if asserted in answer to a location-based technology or method patent infringement complaint, § 1498 may not be indiscriminately applied to all infringement allegations related to 911 and E911 because, in part, of the co-existing commercial and public safety aspects of the location-based technology or methods. Indeed, TCS' request should not be construed as an attempt to shift liability to the government for all uses of protected location-based technology or methods. However, in this same context, TCS notes that the FCC should, at a minimum, provide guidance as to whether the use of patented location-based technologies or methods in compliance with 47 C.F.R. §§ 9.7 and 20.18 for 911, E911, and/or NG911 are considered to be a use "by or for" the government with the "authorization or consent" of the government because a private company operating in the 911/E911 space should not be forced to

[41] *Id.*

accept all liability if § 1498 applies just because it also offers a commercial solution using location-based technology or methods.[42]

One commenter notes that the same equipment and networks that are used to support E911 services and will be used to support NG911 services are also used for non-emergency purposes and, thus, segregating the two is virtually impossible. This is simply not true. Because location based 911 services pre-date many commercial location services, there are long established methods of segregating the 911 services from the commercial services for cost recovery, licensing, and for assessing potential damages in patent infringement cases.[43] The fact that such segregation by a district court may be necessary when considering the § 1498 defense in a dispositive motion does not support the notion that TCS' request for guidance as to § 1498 should be completely ignored. Thus, not only is segregation of the 911 and commercial services possible, courts are also accustomed to considering such segregation when evaluating the § 1498 defense.[44] It is also important to clarify that a finding by the court that § 1498 applies is a separate question from whether the government is ultimately liable for alleged infringement. For example, upon finding that § 1498 applied in one case, the Federal Circuit noted that it did "not find it necessary to answer here the question of whether [the patent holder] has a cause of action against the Government for patent infringement at this time. We simply conclude that, if [the

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[42] In fact, when faced with the argument that the government's authorization and consent exists only when a defendant's conduct has the sole purpose of complying with the government's request, at least one court has affirmatively rejected such a narrow reading of § 1498. *See, e.g.*, *BAE*, WL 3474344, at *16 n.11.

[43] Many wireless carriers maintain separate 911 and commercial location-based equipment, software, processes, and staff. This can be traced back to when 911 services were first introduced and some carriers were able to obtain cost recovery from the government for providing 911 services. In addition, licensing may be based on capacity and/or volume. For example, a licensor may structure the license such that, for commercial purposes, the licensee cannot exceed a certain number of simultaneous sessions. However, these same restrictions do not apply if, for 911 purposes, the licensee exceeds the session restrictions.

[44] *See e.g.*, *Advanced Software*, 583 F.3d at 1375, 1379 (affirming that § 1498 applied to counts involving Treasury checks despite Advanced Software's "concern about the time and expense of conducting duplicative trials in different forums [since] the district court retained jurisdiction of the counts of the complaint that relate to infringement by other banks and customers of Fiserv not involving Treasury checks").

patent holder] now has a cause of action, its remedy is against the Government in the Claims Court."[45]

E. § 1498 Is Not Limited To Instances Where the Government Requires by Specification that a Supplier Infringe Another's Patent

Several commenters attempted to argue that, since the FCC's E911 regulations are performance-based, there is no specific technology that must be employed.[46] However, setting aside the fact that, if available, the non-infringing alternatives may be less effective or efficient, more costly to employ, or infringe other patented technology, the broad method claims that have been granted over the years in this space are interpreted by at least some patent holders to read directly on the E911 regulations.[47]

Furthermore, the government does not need to require the infringement of a precise patent in order to grant its authorization and consent within the meaning of § 1498. Rather, as explained by the Federal Circuit, "[t]he mere fact that the Government specifications for the targets did not absolutely require [the defendant] to infringe [the patent holder's] patent ... does not extinguish the Government's consent."[48] In addition, the Federal Circuit has clarified that, "[t]o limit the scope of § 1498 only to instances where the Government requires by specification that a supplier infringe another's patent would defeat the Congressional intent" and "[t]he coverage of § 1498 should be broad so as not to limit the Government's freedom in procurement

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[45] *TVI Energy Corp* , 806 F.2d at 1060-61; *see also Hutchinson Indus. Inc.*, 2010 WL 1379720, at * 12 (explaining that "[t]he analysis under § 1498(a) for an alleged private infringer's immunity from suit in the district court is separate from the analysis of the Government's liability for use of an infringing patent.")

[46] If there are non-infringing alternatives, they may be less effective or efficient, more costly to employ, or infringe other patented technology. The patent holders should not be permitted to use the Government's mandate as an opportunity to hold hostage those service providers who aim to comply with the mandate, forcing them to either risk infringement in order to comply with the mandate, or relinquish their business.

[47] *See e.g.*, Petition at 3-4, n.12-13 (citing EMSAT Complaint at ¶¶ 16-18 and Tendler Complaint at ¶ 14).

[48] *Parker Beach Restoration, Inc. v. United States*, 58 Fed. Cl. 126 (Fed. Cl. 2003) (quoting *TVI Energy Corp.*, 806 F.2d at 1060)).

by considerations of private patent infringement."[49,50] Here, the FCC's regulations do not necessarily need to require the practice of a particular patent for § 1498 to be applicable.

F. Legislative Efforts Do Not Address the Issues in the Petition

Despite the fact that Congress is considering a bill to address the growing PAE problem, the SHIELD Act is limited to PAEs rather than the larger issue of compelled infringement.[51] While NENA is absolutely correct that The SHIELD Act represents an excellent starting point for the development of PAE legislation, the SHIELD Act and others like it do not address the issue raised in the Petition related to a regulation and the application of § 1498 to that regulation. In the current legislative environment, and given the need to push forward with the deployment of NG911, the FCC should not wait for Congressional legislation that, like Godot in Samuel Beckett's play, may never come.[52] Instead, as demonstrated by TCS, the Commission does have the authority to act and it should act now.[53]

In sum, the relief sought by TCS is neither too broad nor too narrow. It is just right for the problem at hand. It is manifestly unfair to place a regulated entity in the uncomfortable position of choosing between violating a technical rule or infringing a patent right. The Commission must remain cognizant of the intellectual property rights implications of its specific regulatory mandates.

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[49] *TVI Energy Corp.*, 806 F.2d at 1060.

[50] Several commenters attempted to rely on *Carrier Corporation v. United States*, 534 F.2d 244 (Ct. Cl. 1976) for the general premise that a mandate must identify a certain patented technology to qualify for implied authorization and consent. However, in cases such as *TVI Energy Corporation*, the Federal Circuit construed § 1498 more broadly than the Court of Claims had done ten years prior in *Carrier Corporation*.

[51] Saving High-Tech Innovators from Egregious Legal Disputes Act of 2013, H.R. 845, 113th Cong., 1st Sess. (2013). If enacted, the SHIELD Act would allow a party to recover the costs of suit and reasonable attorney's fees if that party prevails on a claim of invalidity or noninfringement against an entity that is not an inventor, exploiter, or university/technology transfer organization.

[52] NENA Comments at 4.

[53] *See e.g.* TCS Comments at 11-12.

II. The FCC Has Previously Imposed a FRAND Requirement on 911 and E911 Services

In its Petition, TCS has asked in the alternative 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 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. Contrary to the assertions of Qualcomm[54] and NENA[55], TCS is not asking the FCC to break new ground. Section 9.7 of the Commission's Rules requires that an owner or controller of a capability that can be used for 911 or E911 service must provide such a capability to an interconnected VoIP provider on reasonable rates, terms, and conditions.[56] Section 9.7 is already a FRAND requirement. For the reasons stated in both its Petition and Comments, TCS is simply asking the FCC to expand its current rules (which presently cover only interconnected VoIP service providers) to require that all E911 and NG911 capabilities, including intellectual property rights ("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. None of the parties opposing TCS' petition have addressed the issue of why the FCC should not expand its FRAND requirement given that both the 911 and E911 capabilities that are currently covered and the owners and controllers of those capabilities are the same. The only difference would be that the amended rules would now apply to 911 and E911 capabilities provided by those owners and controllers to

[54] Qualcomm Comments at 11.
[55] Comments of the National Emergency Number Association at 9 ("In no case that NENA could locate, however, has the Commission ever itself imposed a compulsory licensing obligation on patentees...")
[56] 47 C.F.R. § 9.7.

CMRS providers and other service providers instead of simply to interconnected VoIP service providers. Given the importance of ensuring the reliable provision of 911 and E911 services, it makes no sense, and would probably be arbitrary, to distinguish between capabilities provided to interconnected VoIP service providers and those provided to CMRS providers.

Contrary to the arguments of Cassidian, the FRAND approach proposed by TCS would not result in significant costs or burdens on either the Commission or the market.[57] In fact, this approach will relieve the burdens currently facing 911 and E911 services providers while at the same time assuring patent owners of reasonable compensation. Further, this approach would not require the Commission to opine on the scope or validity of such patents—that would still be a decision made in other venues. The proposed expansion of the current rules to effect a FRAND approach would institute a minimally intrusive FRAND framework that would not burden either the FCC or the patent market.

CONCLUSION

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

[57] Cassidian Comments at 10.

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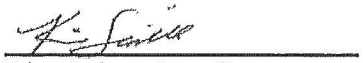

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