

FILED/ACCEPTED

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MAR - 8 2011

March 8, 2011

Federal Communications Commission
Office of the Secretary

BY HAND DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Room TW-A325
Washington, DC 20554

Re: Progeny LMS, LLC Petition for Waiver of the Rules and Request for Expedited Treatment

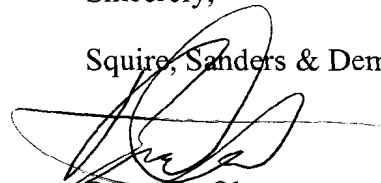
Dear Sir or Madam:

On behalf of Progeny LMS, LLC ("Progeny"), enclosed for filing please find an original and four (4) copies of a petition for waiver and request for expedited treatment. After consultation with Universal Licensing System ("ULS") staff it was determined that the enclosed petition for waiver could not be submitted electronically via ULS because the Progeny licenses at issue are subject to a pending renewal application. Although the licenses remain valid while the renewal application is pending, ULS will not allow Progeny to file a license modification or update at this time. Therefore, the petition for waiver cannot be submitted electronically.

Please feel free to contact us with any questions.

Sincerely,

Squire, Sanders & Dempsey (US) LLP



Bruce A. Olcott
Angela Y. Kung

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Federal Communications Commission
Office of the Secretary

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Progeny LMS, LLC)
)
Petition for Waiver of the Rules)
and Request for Expedited Treatment)
)
To: The Commission)

File No. _____

**PETITION FOR WAIVER OF THE RULES
AND REQUEST FOR EXPEDITED TREATMENT**

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Its Attorneys

March 8, 2011

SUMMARY

As a licensee in the 900 MHz Multilateration Location and Monitoring Service (“M-LMS”) and a proponent of M-LMS technology, Progeny LMS, LLC (“Progeny”) requests that the Commission waive Section 90.155(e) of its rules to permit Progeny to satisfy its build-out requirements using a multilateration network architecture that is more technologically advanced and spectrally efficient than the network configuration specified in Section 90.155(e) of the Commission’s rules. Progeny also requests that the Commission grant a waiver of Section 90.353(g) of its rules to permit Progeny to make its location determination services equally available on a nondiscriminatory basis to track both vehicles and non-vehicular mobile devices.

Progeny and its technology partners have developed a multilateration technology employing beacon signals broadcast from fixed base stations. Mobile devices would use these signals to determine their own position without the need for a return transmission path in the M-LMS spectrum band or any other communications with Progeny’s M-LMS network.

Section 90.155(e) of the Commission’s rules includes detailed and outdated network configuration requirements for M-LMS that do not reflect the availability of this more advanced “broadcast-only” technology. Progeny therefore requests that the Commission grant a waiver to permit Progeny to construct a multilateration network using a network configuration that is more advanced and more spectrally efficient than the Section 90.155(e) requirements.

The use of the broadcast-only multilateration network configuration described in this petition would also eliminate the need for the Commission to restrict the provision of position location service by Progeny to non-vehicular mobile devices. Section 90.353(g) of the Commission’s rules requires M-LMS licensees to provide position location services primarily to vehicles and only on an ancillary basis to non-vehicular mobile devices. The Commission

restricted the devices to which location services could be provided to limit return path transmissions in the 902-928 MHz band. Using a broadcast-only multilateration network configuration, however, Progeny can provide position location services to an unlimited number of vehicle and non-vehicular devices without causing any additional signal transmissions in the M-LMS band. The Commission should therefore grant a waiver of its rules to permit Progeny to forgo compliance with the Section 90.353(g) requirement.

Finally, Progeny requests that the Commission afford this petition expedited treatment. Significantly more accurate position location services are greatly needed by consumers of wireless communications services. Further, the Commission's rules require Progeny to satisfy its initial M-LMS construction milestone by July 19, 2012. In order for Progeny to fulfill both of these objectives, Progeny requires prompt resolution of the issues raised in this petition.

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To: The Commission)

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**PETITION FOR WAIVER OF THE RULES
AND REQUEST FOR EXPEDITED TREATMENT**

Progeny LMS, LLC (“Progeny”), by its attorneys and pursuant to Section 1.925 of the Commissions rules,¹ hereby requests a waiver of Section 90.155(e) in order to permit Progeny, a licensee in the 900 MHz Multilateration Location and Monitoring Service (“M-LMS”), to satisfy its build-out requirements by using a multilateration network configuration that is more technologically advanced and spectrally efficient than the multilateration network configuration identified in Section 90.155(e) of the Commission’s rules.

Progeny also requests a waiver of Section 90.353(g) of the Commission’s rules in order to permit Progeny to make its M-LMS services equally available to track the location of vehicles and non-vehicular mobile devices as long as the provision of such services to other mobile devices does not result in additional signal transmissions in the M-LMS spectrum band.

Finally, Progeny urges the Commission to provide expedited treatment in addressing this petition for waiver. As explained herein, such expedited processing is warranted and would further the public interest.

¹ See 47 C.F.R. § 1.925.

I. INTRODUCTION

An urgent need exists for location determination technologies that can more accurately identify the locations of mobile devices, particularly indoors and in urban centers. Wireless communications services “continue to proliferate as the primary or sole means for many Americans to reach 911” emergency services.² Unfortunately, when emergency calls are made from wireless devices, emergency service providers are about 50% less likely to receive precise information about the location of those callers as compared with emergency calls made from wireline telephones.³

The problem is particularly acute when wireless devices are used to make E911 emergency calls from indoor locations. As Commissioner Meredith Baker recently observed, the adoption of “[h]eighted standards for locating emergency indoor callers could materially enhance the ability of first responders to provide assistance and save lives.”⁴

In response to these growing concerns, Progeny and its technology partners have developed a multilateration technology that can provide highly accurate position location information using a relatively simple and inexpensive terrestrial network architecture. Progeny’s base stations transmit broadcast-only beacon signals that are received from multiple directions by mobile devices. Using the beacon signals and proprietary software, the mobile devices compute their own locations.

² *Wireless E911 Location Accuracy Requirements, E911 Requirements for IP-Enabled Service Providers*, Further Notice of Proposed Rulemaking and Notice of Inquiry, FCC 10-177, ¶ 14 (rel. Sept. 23, 2010) (“*E911 Location NPRM and NOF*”).

³ *See id.* at Statement of Chairman Julius Genachowski.

⁴ *Id.* at Statement of Commission Meredith A. Baker

Progeny's technical approach can provide highly accurate and reliable position location information particularly in challenging environments such as indoors and in urban centers. Progeny's approach is also far more spectrally efficient and less potentially interfering because it can provide position location information using just one transmission path in the M-LMS spectrum band (the fixed base station broadcast path) instead of using multiple transmission paths back and forth between base stations and vehicles as specified in the M-LMS rules. Progeny therefore requests a waiver of Sections 90.155(e) and 90.353(g) of the Commission's rules in order to permit Progeny to use its licensed spectrum to provide position determination services that are more accurate and more spectrally efficient than those specified in the M-LMS rules.

II. BACKGROUND

Progeny is one of six parties that hold economic areas ("EA") M-LMS licenses.⁵ Progeny and three other parties secured their M-LMS licenses by successfully competing in Auction 21 in 1999.⁶ Progeny secured a total of 228 M-LMS licenses, which included 226 B and C block licenses in 113 EAs and A block licenses in two additional EAs.⁷ The current construction deadlines imposed by the Commission on Progeny's M-LMS licenses require

⁵ See *Requests of Progeny LMS, LLC and PCS Partners, L.P. for Waiver of Multilateration Location and Monitoring Service Construction Rules*, Order, 23 FCC Rcd 17250, ¶ 4 (2008) ("2008 Extension Order").

⁶ See *id.* Other M-LMS licensees secured their licenses by competing in a subsequent auction, Auction 39, or secured them through secondary market disaggregations. See *id.*

⁷ See *Location and Monitoring Service Auction Closes, Winning Bidders in the Auction of 528 Multilateration Licenses in the Location and Monitoring Service*, Public Notice, DA 99-05 (rel. March 8, 1999). See Progeny's list of call signs included as an Exhibit.

Progeny to provide service to at least one third of the population in each EA by July 19, 2012 and at least to two thirds of the population in each EA by July 19, 2014.⁸

As the Commission has acknowledged, a lot has happened in the field of position location technology since the Commission adopted its M-LMS rules and issued licenses.⁹ The Global Positioning System (“GPS”) became widely available for civilian use shortly after Auction 21 when the use of selective availability ended. Since then, GPS chipsets and receivers became commonplace in countless consumer and commercial devices, from cars and aircraft guidance systems to cell phones, portable mapping devices and even children’s toys. A major reason for this expansion was the Commission’s E911 wireless position determination requirements.¹⁰

As a result, M-LMS development has been stalled. As the Commission observed in 2008, “no M-LMS equipment is commercially available for current deployment in the United States, and no M-LMS licensee provides service today.”¹¹

In order for M-LMS to be successful, M-LMS licensees must develop position location services that are more accurate and more reliable than the offerings of their competitors. The public need for more accurate and reliable position location services is substantial. Progeny believes that, working with its technological partners, it has developed a solution. Progeny therefore urges the Commission to grant a waiver of its rules to permit Progeny to construct a

⁸ See 47 C.F.R. § 90.155(d). Alternatively, Section 90.155(d) permits M-LMS licensees to satisfy their build-out requirements by demonstrating substantial service.

⁹ See *Amendment of the Commission’s Part 90 Rules in the 904-909.75 and 919.75-928 MHz Bands*, Notice of Proposed Rulemaking, 21 FCC Rcd 2809, ¶ 20 (2006).

¹⁰ See *id.*

¹¹ 2008 *Extension Order*, ¶ 22.

network that employs technologies and network architectures that are more advanced and spectrally efficient than the outdated approach that was mandated in 1995 in the rules for M-LMS.

Progeny's proposed service involves a highly synchronized network that locates vehicles, wireless devices and other mobile assets using multilateration. Transmitter beacons are strategically placed to surround a GPS challenged location (such as a metropolitan area) using existing building structures and towers. To fix a location in the absence of GPS, a device employing Progeny's service optimally should receive signals from at least three M-LMS beacons. The device then computes its own location based on the reception of the beacon signals and, in the case of a wireless device, may then transmit its location using the device's home network (*e.g.*, cellular signal).

In a typical deployment, Progeny's M-LMS network would require a relatively small number of transmitters compared to a standard cellular deployment because Progeny's system is a broadcast-only system that does not need to expand capacity (spectrum) in proportion to network usage, and because mobile devices would have more enhanced sensitivity toward the low bit rate M-LMS signal than toward standard cellular transmissions.

In non-GPS challenged environments, such as rural and remote areas, mobile devices may be able to determine their location using a combination of GPS and the beacon signals from less than three of Progeny's beacon sites.¹² Although Progeny does not intend to employ such a hybrid approach in the vast majority of locations and situations, Progeny seeks the flexibility to

¹² Such a hybrid approach could be very cost effective because Progeny's M-LMS signal has been designed to be similar to a GPS signal and, as a result, future generations of mobile devices with a GPS chipset could in many cases require only a software or firmware upgrade to receive Progeny's M-LMS service.

consider such an approach in appropriate situations rather than operate a network that unwaveringly conforms in every instance to the outdated M-LMS requirements.

Importantly, Progeny is not asking the Commission to conclude that Progeny's technical approach is the only network architecture that M-LMS licensees should employ, or even the most favorable. Progeny, like other M-LMS licensees, is continuing to improve its technology and network architecture in order to provide the most accurate and reliable position location services available. Progeny and other M-LMS licensees could conceivably construct M-LMS networks in the future that match the network architecture that is specified in the Commission's M-LMS rules.

Therefore, Progeny is requesting at this time a waiver of only Sections 90.155(e) and 90.353(g) of the Commission's rules and not any other rule applicable to M-LMS licensees. The grant of these waivers would enhance Progeny's ability to comply with other M-LMS rules, such as the requirement that M-LMS operators must demonstrate that their systems do not cause unacceptable levels of interference to Part 15 devices.¹³ Progeny's proposed broadcast-only multilateration network configuration will greatly reduce overall signal transmissions in the M-LMS band and thereby minimize the potential for interference to Part 15 devices. Progeny therefore seeks a waiver of the Commission's rules in order to give Progeny the flexibility to meet its build-out requirements using the more spectrally efficient network architecture that is described in this petition.

¹³ See 47 C.F.R. 90.353(d)

III. THE COMMISSION SHOULD GRANT A WAIVER OF SECTION 90.155(e) TO PERMIT PROGENY TO CONSTRUCT ITS NETWORK USING MORE ADVANCED AND EFFICIENT TECHNOLOGY

Pursuant to Section 1.925 of the Commission's rules, the Commission may grant a waiver of its rules if it is shown that the underlying purpose of the rule would not be served or would be frustrated by application of the rule to the instant case, and granting the waiver would be in the public interest, or application of the rule would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.¹⁴ As explained herein, the grant of a waiver of 90.155(e) is justified because it would further the underlying intent of the rules, it would serve the public interest, and application of the existing rule to Progeny would be inequitable and unduly burdensome.

A. Application of Section 90.155(e) to Progeny Would be Inequitable and Unduly Burdensome

Section 90.155 of the Commission's rules sets forth very specific and inflexible technical requirements for satisfying M-LMS construction obligations. Pursuant to Section 90.155(d), M-LMS licensees are required to construct M-LMS networks utilizing "multilateration technology."¹⁵ Section 90.155(e) goes on to define "multilateration technology" in terms that are very detailed and arguably outdated. Specifically, the rule states "LMS multilateration stations will only be considered constructed and placed in operation if they are part of a system that can":

- (1) "interrogate a mobile,"
- (2) "receive the response at 3 or more sites,"
- (3) "compute the location from the time of arrival of the responses and"

¹⁴ See 47 C.F.R. § 1.925(b)(3).

¹⁵ See 47 C.F.R. § 90.155(d).

(4) “transmit the location either back to the mobile or to a subscriber’s fixed site.”¹⁶

These detailed requirements effectively mandate that M-LMS networks must determine the location of a mobile device somewhere in the *network* and be able to feed this location information back to the device being tracked. The existing rules also require that the position of each mobile device be determined using at least three or more M-LMS transmit base stations (trilateration), thus foreclosing the possible use of a combination of M-LMS base stations and other position location technologies, such as GPS.

In stark contrast, in the fifteen years since the M-LMS rules were adopted, the technological trend in position location services has expanded to include handset-based and hybrid location determination technologies, thereby potentially eliminating the need for multiple transmission paths between user terminals and fixed base stations.

As the Commission recently acknowledged, an open question exists within the wireless industry and the public safety community regarding the most effective approach to position determination technology.¹⁷ Some argue that handset-based technologies are the most accurate for use outdoors and network-based solutions are more accurate indoors, while others favor hybrid solutions.¹⁸

Despite these differing views, and the Commission’s recognition that handset-based and hybrid technologies may provide highly attractive solutions for improving position location

¹⁶ *Id.* § 90.155(e).

¹⁷ *See E911 Location NPRM and NOI*, ¶¶ 17-18.

¹⁸ *See id.* ¶ 18.

accuracy,¹⁹ the rules adopted more than a decade and a half ago for M-LMS still burden such licensees with inflexible network-based position determination requirements.

As noted in previous sections of this petition, in order to be successful and to provide a service that furthers the public interest, M-LMS licensees will need to employ the most advanced and effective position location technologies. The continued and arbitrary application of network-based location requirements on Progeny could forestall this effort, preventing the provision of more accurate and more spectrally efficient position location services. The technical requirements specified by Section 90.155(e) are cumbersome and outdated and would greatly hamper the ability of Progeny to construct an M-LMS network that could be used to provide position location services that are competitive with other position location technologies. The Commission should therefore conclude that the continued application of Section 90.155(e) would be inequitable and unduly burden Progeny and a waiver of the rule is justified and appropriate.

B. The Grant of a Waiver of Section 90.155(e) Would Also Serve the Underlying Intent of the Rule and the Public Interest

The underlying intent of Section 90.155(e) would be furthered through the grant of a waiver of the rule in order to permit Progeny to employ a more advance multilateration network design. The underlying purpose of Section 90.155(e) is to reduce the potential for interference to other users of the spectrum by restricting the types of services that can be provided by M-LMS licensees, *i.e.*, position location versus general messaging.²⁰

¹⁹ See *id.* ¶¶ 17-18.

²⁰ See *Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems*, Report and Order, 10 FCC Rcd 4695, ¶ 23 (1995) ("*M-LMS Order*").

As discussed above, Progeny is seeking flexibility to satisfy its build-out requirements using a broadcast-only multilateration network architecture. Such a network design would be highly impractical for general messaging or other non-position location services and, most importantly, would greatly reduce the potential for interference to other authorized users of the spectrum band.

Progeny seeks to construct a network that involves only one transmission path (the beacon to mobile device path), rather than multiple transmission paths to and from a base station and mobile devices. This approach would substantially reduce the density of transmitters because the mobile devices do not need to transmit in the M-LMS band, thus greatly reducing the potential for interference to Part 15 devices. Further, Progeny's occasional use of a hybrid position location approach involving potentially less than three M-LMS base stations combined with GPS to serve some remote locations could result in even fewer sources of M-LMS transmissions in the 902-928 MHz band, further reducing the potential for interference to Part 15 devices.

In addition, the underlying purpose of Sections 90.155(e) would be frustrated by continued application of the rule because it would force Progeny to employ a multilateration network configuration that is less spectrally efficient and would generate significantly more signal transmissions in the M-LMS spectrum band. Therefore, the underlying intent of Section 90.155(e) would be robustly served by the grant of a waiver.

The grant of such a waiver would also serve the public interest. The Commission has recognized that the public interest favors the rapid deployment of innovative technologies.²¹ Progeny has designed its broadcast-only M-LMS network with the specific intent of making

²¹ See, e.g., *Fostering Innovation and Investment in the Wireless Communications Market, A National Broadband Plan For Our Future*, Notice of Inquiry, FCC 09-66 (rel. Aug. 27, 2009).

position location services available that are significantly more accurate and reliable than existing services, particularly in challenging environments such as indoors and in urban canyons. As the Commission has acknowledged, existing position location technologies, such as GPS, are not very effective in challenging environments, including indoor settings, urban canyons and buildings (especially high-rises).²²

An ever increasing number of E911 calls are made by parties in these challenging environments. Therefore, the public interest would be greatly served by granting a waiver of Section 90.155(e) in order to permit Progeny to provide position location services that are more accurate, more reliable, more spectrally efficient and far less potentially interfering than the M-LMS network architecture that is proscribed by Section 90.155(e).

IV. THE GRANT OF A WAIVER OF SECTION 90.353(g) IS ALSO JUSTIFIED AND WOULD SERVE THE PUBLIC INTEREST

Progeny further requests a waiver of Section 90.353(g) of the Commission's rules in order to permit Progeny to use a broadcast-only multilateration network configuration to make its services available on a nondiscriminatory basis to identify the location of vehicles and non-vehicular mobile devices.

Pursuant to Section 90.353(g), M-LMS operators are permitted to provide location service to non-vehicular devices only on an ancillary basis.²³ The Commission explained that the purpose of the rule was to limit the density of signal transmissions in the M-LMS band and, with it, the potential interference to other spectrum users.²⁴

²² See *E911 Location NPRM and NOI*, ¶ 23.

²³ See 47 C.F.R. § 90.353(g).

²⁴ See *M-LMS Order*, ¶ 23.

A broadcast-only M-LMS network configuration would substantially reduce M-LMS transmissions in the 902-928 MHz band thereby directly serving the underlying goal of the Section 90.353(g) requirement. In fact, the prohibition established by Section 90.353(g) would arguably be meaningless if applied to a broadcast-only multilateration network configuration such as the one proposed by Progeny. A broadcast-only M-LMS network configuration would enable position location identification by broadcasting a beacon signal from various fixed locations to vehicles and other mobile non-vehicular devices. No other forward link signals are provided by the fixed network to the mobile units other than those provided by the beacon signal.

Similarly, the mobile devices would not need to transmit a return link signal back to the fixed network. Therefore, the risk of harmful interference to other users of the band would in no way be affected by the number of, or types of, mobile devices utilizing a broadcast-only M-LMS network because none of the end-user terminals would use M-LMS spectrum to transmit a return signal back to the fixed network.

Even if a return path was desired, non-vehicular wireless devices could transmit on spectrum not designated for M-LMS. For example, a cell phone could transmit information back to its home network using the data path provided to the cell phone customer by the cellular network.²⁵ Thus, Progeny could use a broadcast-only M-LMS network configuration to provide position location services to unlimited numbers and unlimited types of mobile units without causing any additional signal transmissions in the M-LMS spectrum band.

²⁵ Although vehicles would not necessarily have access to non-M-LMS spectrum for return path transmissions, the Commission's rules already permit vehicles to provide return path transmissions in the M-LMS band.

Progeny therefore urges the Commission to conclude that the underlying purpose of Section 90.353(g) would be served by permitting it to provide location services on a nondiscriminatory basis to both vehicles and other non-vehicular mobile devices.

Further, it would be in the public interest to permit Progeny to provide position location services on a nondiscriminatory basis to wireless handsets and other non-vehicular devices. As the Commission is aware, GPS provides accurate and reliable position location information when used outdoors in non-urban environments – the environments most utilized by cars and trucks. In contrast, GPS provides far less accurate position location information when used indoors and in tall buildings – locations most used by handheld wireless devices. Therefore, the public interest would be best served by permitting Progeny to make its broadcast-only multilateration services equally available to track the locations of both vehicular and non-vehicular mobile devices.

The public interest would also be served by granting Progeny's requested waiver because Progeny's proposed approach would greatly reduce the potential for interference to Part 15 devices operating in M-LMS spectrum. Under the Commission's existing rules, Part 15 devices face the potential for interference from M-LMS networks resulting from three transmission paths.²⁶ First, an M-LMS base station must send a hailing signal to mobile devices. Second, the mobile devices, which may be located very close to Part 15 devices, send information back to the M-LMS base station. Third, the M-LMS base station sends position information back to the mobile devices.

In contrast, Progeny seeks flexibility to construct a network that employs a one-way broadcast-only position location technology. Such an approach would greatly reduce signal

²⁶ See 47 C.F.R. § 90.155(e).

transmissions and M-LMS transmitter density in the 902-928 MHz band regardless of the numbers and types of mobile devices that employ Progeny's service to determine their locations. The public interest would therefore be served by granting a waiver of Section 90.353(g) of the Commission's rules to permit Progeny to make its service equally available to vehicles and non-vehicular mobile devices.

Finally, application of the existing rule to Progeny would be unduly burdensome and unnecessary. Progeny and its technological partners are seeking to provide a position location service that is not only more accurate and reliable, but is also relatively inexpensive. This can best be accomplished by making the service available to as many users as possible in order to spread the costs of the fixed network infrastructure as widely as possible. As discussed above, Progeny's broadcast-only multilateration network configuration can be used by an unlimited number of mobile devices without any cumulative impact on other users of M-LMS spectrum. The continued imposition of a Commission rule that would arbitrarily limit the potential customer base for M-LMS, possibly substantially, would be extremely burdensome to Progeny because it would jeopardize its ability to make highly accurate M-LMS service available to users on an inexpensive basis. The Commission should therefore further the public interest by granting a waiver of the Section 90.353(g) requirement.

V. THE COMMISSION SHOULD PROVIDE EXPEDITED TREATMENT IN GRANTING THE WAIVERS REQUESTED HEREIN

Progeny further requests that the Commission afford this request expedited treatment. As discussed in previous sections, the use of wireless devices to make E911 calls is increasing and, with it, the number of wireless emergency calls made from indoor locations.²⁷ Improved

²⁷ *E911 Location NPRM and NOI*, ¶ 14, Statement of Chairman Julius Genachowski, Statement of Commission Meredith A. Baker.

technologies are needed to ensure that emergency service providers promptly receive accurate and reliable information regarding the locations of wireless callers in order to “provide assistance and save lives.”²⁸ Given the growing and “life-critical” importance of these issues, Commissioner Michael Copps has urged that the Commission and the wireless industry “must make the extra effort, expend the necessary resources and keep the objective front-and-center.”²⁹

Progeny seeks to contribute to these efforts by rapidly constructing a multilateration network that can provide highly accurate, reliable and cost effective position location services that are particularly effective in challenging indoor and urban environments. In order to make these services widely available as quickly as possible, Progeny urges the Commission to grant expeditiously the waivers requested by this Petition.

Further, Progeny may have a limited opportunity to construct its M-LMS network. Progeny is currently required to satisfy its initial build out obligation by July 19, 2012, less than sixteen months from the filing of this Petition. Progeny and its technological and financial partners stand ready to begin construction of Progeny’s M-LMS network. Progeny therefore believes that the public interest would be greatly served by granting these waivers on an expedited basis.

VI. CONCLUSION

For the reasons discussed above, Progeny respectfully requests that the Commission grant a waiver of its rules permitting Progeny to satisfy its build-out requirements using a multilateration network configuration that is more technologically advanced and spectrally efficient than the standards set forth in Section 90.155(e) of its rules. Progeny also urges the

²⁸ *Id.* at Statement of Commission Meredith A. Baker.

²⁹ *Id.* at Statement of Commissioner Michael J. Copps Approving.

Commission to grant a waiver permitting Progeny to make its location determination services equally available to vehicles and other mobile devices. As demonstrated herein, the public interest would be greatly served by the expeditious grant of these requests.

Respectfully submitted,

PROGENY LMS, LLC

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March 8, 2011

Progeny LMS, LLC
Petition for Waiver of the Rules and Request for Expedited Treatment
Exhibit

1	<u>WPQP845</u>	38	<u>WPQP882</u>	75	<u>WPQP919</u>	112	<u>WPQP956</u>
2	<u>WPQP846</u>	39	<u>WPQP883</u>	76	<u>WPQP920</u>	113	<u>WPQP957</u>
3	<u>WPQP847</u>	40	<u>WPQP884</u>	77	<u>WPQP921</u>	114	<u>WPQP958</u>
4	<u>WPQP848</u>	41	<u>WPQP885</u>	78	<u>WPQP922</u>	115	<u>WPQP959</u>
5	<u>WPQP849</u>	42	<u>WPQP886</u>	79	<u>WPQP923</u>	116	<u>WPQP960</u>
6	<u>WPQP850</u>	43	<u>WPQP887</u>	80	<u>WPQP924</u>	117	<u>WPQP961</u>
7	<u>WPQP851</u>	44	<u>WPQP888</u>	81	<u>WPQP925</u>	118	<u>WPQP962</u>
8	<u>WPQP852</u>	45	<u>WPQP889</u>	82	<u>WPQP926</u>	119	<u>WPQP963</u>
9	<u>WPQP853</u>	46	<u>WPQP890</u>	83	<u>WPQP927</u>	120	<u>WPQP964</u>
10	<u>WPQP854</u>	47	<u>WPQP891</u>	84	<u>WPQP928</u>	121	<u>WPQP965</u>
11	<u>WPQP855</u>	48	<u>WPQP892</u>	85	<u>WPQP929</u>	122	<u>WPQP966</u>
12	<u>WPQP856</u>	49	<u>WPQP893</u>	86	<u>WPQP930</u>	123	<u>WPQP967</u>
13	<u>WPQP857</u>	50	<u>WPQP894</u>	87	<u>WPQP931</u>	124	<u>WPQP968</u>
14	<u>WPQP858</u>	51	<u>WPQP895</u>	88	<u>WPQP932</u>	125	<u>WPQP969</u>
15	<u>WPQP859</u>	52	<u>WPQP896</u>	89	<u>WPQP933</u>	126	<u>WPQP970</u>
16	<u>WPQP860</u>	53	<u>WPQP897</u>	90	<u>WPQP934</u>	127	<u>WPQP971</u>
17	<u>WPQP861</u>	54	<u>WPQP898</u>	91	<u>WPQP935</u>	128	<u>WPQP972</u>
18	<u>WPQP862</u>	55	<u>WPQP899</u>	92	<u>WPQP936</u>	129	<u>WPQP973</u>
19	<u>WPQP863</u>	56	<u>WPQP900</u>	93	<u>WPQP937</u>	130	<u>WPQP974</u>
20	<u>WPQP864</u>	57	<u>WPQP901</u>	94	<u>WPQP938</u>	131	<u>WPQP975</u>
21	<u>WPQP865</u>	58	<u>WPQP902</u>	95	<u>WPQP939</u>	132	<u>WPQP976</u>
22	<u>WPQP866</u>	59	<u>WPQP903</u>	96	<u>WPQP940</u>	133	<u>WPQP977</u>
23	<u>WPQP867</u>	60	<u>WPQP904</u>	97	<u>WPQP941</u>	134	<u>WPQP978</u>
24	<u>WPQP868</u>	61	<u>WPQP905</u>	98	<u>WPQP942</u>	135	<u>WPQP979</u>
25	<u>WPQP869</u>	62	<u>WPQP906</u>	99	<u>WPQP943</u>	136	<u>WPQP980</u>
26	<u>WPQP870</u>	63	<u>WPQP907</u>	100	<u>WPQP944</u>	137	<u>WPQP981</u>
27	<u>WPQP871</u>	64	<u>WPQP908</u>	101	<u>WPQP945</u>	138	<u>WPQP982</u>
28	<u>WPQP872</u>	65	<u>WPQP909</u>	102	<u>WPQP946</u>	139	<u>WPQP983</u>
29	<u>WPQP873</u>	66	<u>WPQP910</u>	103	<u>WPQP947</u>	140	<u>WPQP984</u>
30	<u>WPQP874</u>	67	<u>WPQP911</u>	104	<u>WPQP948</u>	141	<u>WPQP985</u>
31	<u>WPQP875</u>	68	<u>WPQP912</u>	105	<u>WPQP949</u>	142	<u>WPQP986</u>
32	<u>WPQP876</u>	69	<u>WPQP913</u>	106	<u>WPQP950</u>	143	<u>WPQP987</u>
33	<u>WPQP877</u>	70	<u>WPQP914</u>	107	<u>WPQP951</u>	144	<u>WPQP988</u>
34	<u>WPQP878</u>	71	<u>WPQP915</u>	108	<u>WPQP952</u>	145	<u>WPQP989</u>
35	<u>WPQP879</u>	72	<u>WPQP916</u>	109	<u>WPQP953</u>	146	<u>WPQP990</u>
36	<u>WPQP880</u>	73	<u>WPQP917</u>	110	<u>WPQP954</u>	147	<u>WPQP991</u>
37	<u>WPQP881</u>	74	<u>WPQP918</u>	111	<u>WPQP955</u>	148	<u>WPQP992</u>

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