

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

<b>In the Matter of</b>	)	
	)	
<b>Petition for Rulemaking to Amend Rule Section 22.901(b) to Extend Analog Sunset Date</b>	)	<b>RM _____</b>
	)	
<b>Sunset of the Requirement that Cellular Systems Maintain Analog Transmission Capacity through February 18, 2008, Rule Section 22.901(b)</b>	)	<b>WT Docket No. 01-108</b>
	)	

**To: The Commission**

**PETITION FOR RULE MAKING**

**Alarm Industry Communications  
Committee**

**ADT Security Services, Inc.**

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## Summary

The Alarm Industry Communications Committee (“AICC”) and ADT Security Services, Inc. (“ADT”) (hereinafter collectively the “Petitioners”) request that the sunset date for the cellular analog (or “AMPS”) transmission requirement of Rule Section 22.901(b) be extended an additional two years, *i.e.*, until February 18, 2010. The Petitioners respectfully submit that the adverse impact of the AMPS sunset on central station alarm operations clearly warrants extending the sunset date by two years. Central station alarm companies simply will not be able to transition more than a million consumers, businesses and government facilities from analog service to digital alternatives. Digital replacement radios have only become available in the past several months, and in limited numbers. Even if digital replacement radios were to become available in unlimited numbers today, the time it will take to identify the specific locations with analog radios and schedule a truck roll to replace them will be well over two years, based on the limited number of trained and licensed alarm technicians. Moreover, digital cellular service has not yet fully duplicated analog coverage; and because CDMA alarm radios have not yet been developed, there is no AMPS alternative where GSM service is not available. Due to the combination of these factors, there is a high probability that the alarm industry will not be able to complete upgrades to digital cellular alarm radios by the February 18, 2008 sunset, thus putting public safety at risk. Moreover, the AMPS sunset will have an adverse impact on the victims of domestic abuse that depend on analog alarm radio service for their personal safety. The Commission should also make it clear that AMPS service must not be compromised prior to the sunset deadline.

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**To: The Commission**

**PETITION FOR RULE MAKING**

The Alarm Industry Communications Committee (“AICC”) and ADT Security Services, Inc. (“ADT”) (hereinafter collectively the “Petitioners”), by their attorneys and pursuant to Rule Section 1.401,<sup>1</sup> hereby submit this petition for rule making (“Petition”) requesting that the sunset date for the cellular analog (or “AMPS”) transmission requirement of Rule Section 22.901(b)<sup>2</sup> be extended an additional two years, *i.e.*, until February 18, 2010. In support of this Petition, the following is shown:

**I. Statement of Interest**

AICC is comprised of representatives of the Central Station Alarm Association (CSAA), National Burglar & Fire Alarm Association (NBFAA), the Security Industry

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<sup>1</sup> 47 CFR § 1.401.

<sup>2</sup> 47 CFR § 22.901(b).

Association (SIA),<sup>3</sup> Bosch Security Systems, Digital Monitoring Products, Digital Security Control, Telular, HSM (formerly known as Honeywell Monitoring), Honeywell Security, Vector Security, Inc., ADT Security Services, Inc., AES- IntelliNet, GE Security, Alarm.com, Numerex Corp, Aeris.net and Security Network of America. NBFAA, and CSAA representing the alarm dealer segment, have 2434 member companies providing alarm service to the public. AICC member companies protect a wide range of sensitive facilities and their occupants from fire, burglaries, sabotage and other emergencies. Protected facilities include government offices, power plants, hospitals, dam and water authorities, pharmaceutical plants, chemical plants, banks, schools and universities.

In addition to these commercial and governmental applications, alarm companies protect an increasing number of residences and their occupants from intruders, burglary, fire, and carbon monoxide. Alarm companies also provide medical alert services for obtaining ambulances in the event of medical emergencies. Currently, there are approximately 26 million central station alarm systems installed in homes and businesses in the United States, and an estimated 20 million homes in the United States and their occupants are protected by such systems. The essence of every alarm company's business is to help protect people from the unpredictable. Alarm service providers are trusted to help safeguard those things that their customers value most – their families, employees, communities, homes, businesses and assets. Over the past 20 years, the public has increasingly relied on private security services for fire, burglary and medical

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<sup>3</sup> CSAA, NBFAA and SIA are associations comprised of central station alarm companies, alarm monitoring centers, alarm installation companies and alarm manufacturing companies. Their memberships represent the majority of such companies operating in the United States.

alert protection as the services of local law enforcement agencies' resources have become strained.

ADT is the largest single provider of electronic security services, with more than six million commercial, government and residential customers throughout North America. ADT has been providing security services for more than one hundred years, and is a member of AICC. ADT also helps protect a wide range of sensitive public facilities and their occupants from fire, burglaries, sabotage and other emergencies. These facilities include government installations, such as Federal Courthouses and National Guard training centers; nearly one hundred public airports (including Martin State Airport, which also serves as the home base of the 135<sup>th</sup> Airlift Group and 175<sup>th</sup> Fighter Group of the Maryland Air National Guard); public port facilities, such as the Port of Oakland, California; as well as numerous power plants, hospitals, dams, pharmaceutical plants, chemical plants, banks, and educational institutions.

AICC member companies use radio units installed at the customer premises as either the primary or secondary medium for the transmission of signals to the central station alarm monitoring center. Use of wireless monitoring links has become widespread because a burglar or arsonist will, if possible, disable the transmission of alarm signals to the Central Station by cutting the telephone lines ordinarily used to transmit these signals. By way of example, ADT's alarm monitoring data indicates that in just one week (the week of November 19-27, 2006), there were over 22 incidents of intruders cutting phone lines to disable an alarm. In addition, wireless devices are intended to allow fire alarms to go through even if the telephone connection has been

damaged by fire. In many instances, insurance companies require alarm companies to utilize two methods of monitoring protected premises, especially in the case of businesses and sensitive facilities that could become the target of terrorist attacks or other life threatening events. For commercial fire installations, Underwriters Laboratories and the National Fire Code (NFPA 72) require two communications paths. Insurance companies impose this requirement on alarm system users to meet the Code, and cellular is often chosen as one of the communication paths.

While the alarm industry has a limited number of Part 90 radio frequencies available for alarm signaling, manufacturers have traditionally installed most customer premise alarm radios utilizing cellular technology. Many manufacturers selected this technology because cellular coverage is relatively ubiquitous. A survey of alarm equipment manufacturers indicates that there are currently more than a million cellular devices installed and operating in protected homes and businesses. These cellular radios are configured for analog operation only. NBFAA member companies indicate that 92.5 percent of alarm providers use analog cellular alarm radios to serve at least a portion of their customers, and that approximately 70 percent of such providers use the analog radios to relay fire alarms as well as intrusion alerts. A substantial number of alarm providers have indicated to AICC that they use analog radios to transmit medical alert signals as well. For example, Vector Security reports providing at least 5000 customers with medical alert service via AMPS radios.

After a central station receives a signal indicating a fire, break-in or medical emergency, trained central station personnel follow specific calling procedures dependent

upon the nature of the emergency. To minimize false alarms, in most cases, prior to calling the appropriate local emergency responders, an attempt is made to contact the home or business owner. On select signals, personnel are trained to contact appropriate local emergency responders directly, particularly in locations identified with high risk, such as victims of domestic abuse. Thus, AICC member companies are engaged in the provision of public safety support services.<sup>4</sup> In view of the fact that AICC member companies employ analog cellular units as part of their central station alarm infrastructure, AICC and its members (including ADT) have an interest in the scheduled sunset of the requirement that cellular licensees retain analog transmission capacity through February 18, 2008.

Because of the public safety risks posed by the sunset of the AMPS requirement, AICC filed comments on February 21, 2006 (“AICC Comments”) in response to the Commission’s Public Notice, entitled “*Wireless Telecommunications Bureau Reminds Cellular Licensees Of Analog Reporting Requirement*,” Mimeo DA 05-3015, dated November 30, 2005 (the “November 30, 2005 Public Notice”) and Public Notice, entitled

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<sup>4</sup> For example, on July 18, 2005 a carbon monoxide detector installed at the Georgia home of Brian Bennett by NBFAA-member Ackerman Security Systems recently saved the lives of Bennett's two children and their nanny, who were home asleep at the time of the incident. Bennett said when he had his alarm installed he was also advised about the benefits of carbon monoxide and smoke detectors, but he never imagined two months later they would save the lives of his family. After alerting the nanny in the basement, the monitored security system sent a carbon monoxide signal to Ackerman's U.L. Certified Central Station, who then contacted the McDonough, Georgia Fire Department.

Similarly, in June 2005, the Jones family had just added a monitored smoke detector to their existing NorthStar Security System when their Columbus, Ohio, home caught fire, because of a candle left unattended in a bedroom. NorthStar's central station quickly dispatched the fire department to their home.

In a May 9, 2005 press release, ADT documented the rescue of a domestic violence victim from her abuser in Martinsburg, VA. The victim used her ADT emergency necklace pendant to summon law enforcement after being threatened at knifepoint by her spouse who was out of prison on a criminal bond for previously attempting to strangle the victim.

*“Electronic Filing Of Analog Cellular Status Reports Will Be Available Through The Internet Beginning January 25, 2006 (Reports due by February 21, 2006)”*, Mimeo DA 06-133, dated January 23, 2006. The AICC Comments provided the Commission with detailed information about the adverse effect that the current AMPS sunset date could have on citizens protected by wireless alarm devices. On October 4, 2006, ADT submitted *Ex Parte* Comments, supporting AICC’s showing, and bringing to the Commission’s attention two related concerns: (1) the adverse effect that the AMPS sunset could have on victims of domestic violence, and (2) the need for the Commission to ensure that cellular systems do not compromise their AMPS service prior to the actual sunset date. Both the AICC Comments and ADT *Ex Parte* Comments have requested that the Commission extend the AMPS sunset date by two years. During a meeting held on October 31, 2006, the Commission’s Wireless Bureau staff requested that the extension request be the subject of a formal petition for rule making, because of concerns that the Biennial Review process that resulted in the issuance of the cellular AMPS sunset did not afford the optimal procedural posture for an extension of the deadline.<sup>5</sup>

## **II. Proposed Text of the Revised Analog Cellular Sunset Rule**

Pursuant to Rule Section 1.401(c), the Petitioners are requesting that the Commission revise the relevant portion of Rule Section 22.901(b) to read as follows:

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<sup>5</sup> As discussed below, the Commission mandated annual reports by the cellular industry on the status of the AMPS transition, and invited public comment on this subject, in order to gauge whether the transition could proceed on schedule, or if instead an adjustment to the schedule was needed. It would seem that this implementation oversight mechanism would afford an avenue for launching a proceeding to extend the AMPS sunset date. However, out of an abundance of caution, the instant petition is being filed.

(b) *Until February 18, 2010*, each cellular system that provides two-way cellular mobile radiotelephone service must –

(1) Maintain the capability to provide compatible analog service (“AMPS”) to cellular telephones designed in conformance with the specifications contained in sections 1 and 2 of the standard document ANSI TIA/EIA–553–A–1999 Mobile Station—Base Station Compatibility Standard (approved October 14, 1999); or, the corresponding portions, applicable to mobile stations, of whichever of the predecessor standard documents was in effect at the time of the manufacture of the telephone. . . .

(2) Provide AMPS, upon request, to subscribers and roamers using such cellular telephones while such subscribers are located in any portion of the cellular system’s CGSA where facilities have been constructed and service to subscribers has commenced. See also §20.12 of this Chapter. Cellular licensees must allot sufficient system resources such that the quality of AMPS provided, in terms of geographic coverage and traffic capacity, is fully adequate to satisfy the concurrent need for AMPS availability.

### **III. The Commission Should Extend The Analog Sunset For An Additional Two Years.**

The Commission adopted the analog cellular sunset rule<sup>6</sup> as part of its Year 2000 Biennial Regulatory Review of regulations codified in Part 22 of the Rules.<sup>7</sup> The rule generally provides that “[u]ntil February 18, 2005, each cellular system that provides two-way cellular mobile radiotelephone service” must “maintain the capability to provide compatible analog service (‘AMPS’) to cellular telephones designed” to operate using the analog air interface;<sup>8</sup> and to “[p]rovide AMPS, upon request, to subscribers and roamers using such cellular telephones while such subscribers are located in any portion of the cellular system’s CGSA where facilities have been constructed and service to subscribers

<sup>6</sup> Codified in Section 22.901(b) of the Rules.

<sup>7</sup> Year 2000 Biennial Review – Amendment of Part 22 of the Commission’s Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and Other Commercial Mobile Radio Services, WT Docket No. 01-108, *Report and Order*, 17 FCC Rcd. 18401 (2002) (the “AMPS Sunset Order”).

<sup>8</sup> Rule Section 22.901(b)(1).

has commenced.”<sup>9</sup> As a concurrent requirement, the Commission specified that, until February 18, 2008, “[c]ellular licensees must allot sufficient system resources such that the quality of AMPS provided, in terms of geographic coverage and traffic capacity, is fully adequate to satisfy the concurrent need for AMPS availability.”<sup>10</sup>

The Commission has specified that the analog cellular capacity requirement will expire five years following the date of publication of the AMPS Sunset Order in the Federal Register, which the Commission concluded should be sufficient time to allow the more widespread availability of digital air interface technologies (*e.g.*, CDMA and GSM) to meet the needs of certain classifications of consumers, such as persons with hearing disabilities, telematics providers, and emergency-only users (*e.g.*, the elderly and battered women) who continue to rely on analog service due to the absence of digital alternatives.<sup>11</sup> However, the Commission clearly expressed concern for the possibility that this five-year transition may not be adequate.<sup>12</sup> Therefore, it imposed a requirement that nationwide carriers file periodic reports as the five-year sunset date draws near.<sup>13</sup> These reports must “address the continued need or demand for ancillary use of features

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<sup>9</sup> Rule Section 22.901(b)(2).

<sup>10</sup> Rule Section 22.901(b)(2).

<sup>11</sup> AMPS Sunset Order, Para. Nos. 6, 8, 18-20, 22, 23, 24, 28 and 29.

<sup>12</sup> Indeed, Commissioner Copps expressly warned about the possibility of adverse consequences due to the Commission’s assumption that the AMPS transition could take place within five years: “Yet today the majority finds that the analog standard is no longer ‘necessary,’ even though compatible services are not yet available. It guesses that such devices will soon be available, but fails to support this prognostication with any record evidence. Based on this guess, the majority delays final elimination of the rule for five years.” Commissioner Copps accordingly warned that the Commission may have to revisit its assumption that five years is an adequate transition, and observed that a sunset based on the actual availability of digital equipment was preferable. See AMPS Sunset Order, Statement of Commissioner Michael J. Copps agreeing in part and dissenting in part, at p. 2. While Commissioner Copps’ observations were primarily focused on the unavailability of hearing aid compatible equipment, the same concerns apply to the transition of alarm equipment to digital.

<sup>13</sup> AMPS Sunset Order, Para. Nos. 31 – 34.

and protocols that are part of the [analog] standard for various purposes such as CDPD, telemetry, telematics, vehicle tracking *and alarm systems*.”<sup>14</sup> The Commission further indicated that “other interested parties will be able to file reports or comments as appropriate. . .”<sup>15</sup> The information contained in these reports “will be used to determine whether or not the Commission will initiate a proceeding to extend the sunset date or take enforcement action under Section 255.”<sup>16</sup>

The Commission further directed the cellular service providers to “conduct customer outreach in order to educate consumers that analog services may be discontinued on a date certain, thereby providing . . . consumers with time to migrate from analog to digital handsets.”<sup>17</sup> To this end, each cellular carrier was instructed to describe in its periodic AMPS reports “their plan for informing its subscribers, the public and other interested parties regarding plans to discontinue analog service.”<sup>18</sup>

The above quoted language of the AMPS Sunset Order and the November 30, 2005 Public Notice, and the mandatory reporting/public comment process established therein, indicate the Commission’s significant concern about the needs of persons with hearing disabilities and 911-only consumers. These documents also reflect that the impact of the AMPS transition on “alarm systems” is at issue as well.<sup>19</sup> The Petitioners respectfully submit that the Commission’s concerns are well founded, and that the

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<sup>14</sup> See November 30, 2005 Public Notice at p. 3 (*Emphasis added*).

<sup>15</sup> AMPS Sunset Order, Para. Nos. 31-32.

<sup>16</sup> AMPS Sunset Order, Para. No. 32.

<sup>17</sup> AMPS Sunset Order, Para. No. 24.

<sup>18</sup> AMPS Sunset Order, Para. No. 31.

adverse impact of the AMPS sunset on central station alarm operations clearly warrants extending the sunset date by an additional two years. As discussed below, central station alarm companies simply will not be able to transition more than a million consumers, businesses and government facilities from analog service to digital alternatives. Digital replacement radios have only become available in the past several months, and in limited numbers. Even if digital replacement radios were to become available in unlimited numbers today, the time it will take to identify the specific locations with analog radios and schedule a truck roll to replace them will be well over two years, based on the limited number of trained and licensed alarm technicians. Moreover, digital cellular service has not yet fully duplicated analog coverage; and because CDMA alarm radios have not yet been developed, there is no AMPS alternative where GSM service is not available. Due to the combination of these factors, there is a high probability that the alarm industry will not be able to complete upgrades to digital cellular alarm radios by the February 18, 2008 sunset, thus putting public safety at risk. Moreover, the AMPS sunset will have an adverse impact on the victims of domestic abuse that depend on analog alarm radios (including a wireless “panic button” service) for their personal safety. Each of these issues is discussed more fully below.

**A. Replacement digital alarm radios are only now becoming available.**

As described above, the alarm industry estimates that there are more than one million analog cellular radio devices in service domestically. However, until very recently, there were no alarm signaling radios operating on the digital cellular air interfaces. As of February 2006, the first cellular alarm manufacturer (Telular Corporation) was just starting to make digital products commercially available. And

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<sup>19</sup> November 30, 2005 Public Notice, pg. 3.

Honeywell, one of the largest manufacturers of AMPS alarm radios, just started making digital alarm radios available for commercial use in October 2006.<sup>20</sup> These manufacturers face the inevitable process of “working out the bugs” as they attempt to mass produce their radios; and certain equipment has already been the subject of a recall. As with all new products, it will take time before the digital replacement radios can be produced in the huge volume that will be necessary to replace all existing AMPS alarm radios.

The lack of available replacement equipment is a compelling reason to extend the sunset date. While the AMPS Sunset Order became effective in February 2003, it was not until three years later, in Spring 2006, that the first replacement radio became available. Thus, it was utterly impossible for any alarm company to install a replacement digital radio for the first sixty percent of the transition period. And even now, the manufacturers that have digital replacement radios will need time to produce enough radios to allow for the replacement of more than a million analog units.

The process of gearing up for the transition has been hindered in part by the fact that the impact of the analog-to-digital transition was not readily apparent to alarm service providers immediately upon the issuance of the AMPS Sunset Order. Many alarm companies did not deal directly with cellular carriers for their AMPS service. Instead resellers/aggregators such as Aeris and Velocita resell AMPS airtime to companies like Honeywell, which in turn provide the equipment and AMPS capability to

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<sup>20</sup> A third entity, Alarm.com, has recently begun manufacturing GSM-based radios that will be usable for certain alarm systems having a compatible alarm panel.

the alarm companies. However, once these entities became aware of the AMPS issue, and focused the alarm companies on the problem, the alarm companies immediately began to formulate a solution. In 2004 (the year after the AMPS Sunset Order), a major alarm manufacturer advised ADT that it expected to have its digital replacement GSM and CDMA radios developed and available for commercial deployment in 2005. However, despite its best efforts, this manufacturer was unable to deliver its first radios until more than a year later. This predicament was not created by the alarm manufacturers. The cellular industry had engaged in the development of digital cell phones for several years prior to the issuance of the AMPS Sunset Order, and the order reflects an expectation that most analog-dependant consumers could be accommodated with new digital cell phones. However, as shown in Attachment A hereto, the cellular radios used to transmit alarm signals are specialized fixed radios that had to be developed by niche manufacturers such as Honeywell and Telular. These manufacturers have been put into a position of having to design, test and mass produce digital alarm devices in a very short timeframe.

Fortunately, the alarm manufacturers have taken great strides toward providing replacement AMPS radios at the earliest practical time. Nonetheless, the remaining fifteen months until the AMPS sunset is simply not enough time for alarm service providers to obtain replacement radios in massive quantities and deploy them.

The equipment availability issue has been exacerbated by a significant demand by *new* alarm customers for the digital radios that are coming off the assembly line. The growing trend among alarm customers is to demand a radio device as their primary

connection to the central station. This trend is due in part to the increase in persons that use their mobile phone as their primary line, meaning that there is no landline connection in their home. Moreover, as more customers adopt Voice over Internet Protocol (“VoIP”) and other digital technologies in place of traditional landline phone service, the demand for cellular alarm radios has skyrocketed. For example, over the past year, ADT’s cellular radio demand has doubled. This is exacerbating supply issues by approximately 10,000 units per month, consuming a large portion of the digital alarm radios that are being manufactured.<sup>21</sup>

**B. Digital cellular coverage has not yet duplicated AMPS coverage.**

Aside from issues relating to the availability of digital radios, alarm companies are hindered in their efforts to replace AMPS radios by digital coverage issues. Simply put, digital cellular coverage has made great strides, but it does not currently match the coverage and building penetration of AMPS. See, e.g., [wirelessadvisor.com/analog-cellular.cfm](http://wirelessadvisor.com/analog-cellular.cfm) (Free consumer advisor service indicates that “Analog has better coverage than digital, and greater service availability.”). Honeywell has advised AICC that, while mobile cell phone users may not notice the coverage and penetration disparities as much, there will be instances in which an indoor fixed alarm radio installation requires the greater signal penetration of a mature network to ensure that it will work. ADT has virtually stopped deployment of analog cellular alarm radios. However, there are certain areas in which there is poor digital cellular coverage, leaving no alternative to the AMPS radios. For instance, several locations in Virginia, Iowa, Illinois, Connecticut and

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<sup>21</sup> The use of VOIP service as the primary phone line creates an issue for alarm customers because the public internet is not reliable as an alarm reporting channel. If there is a power outage, or an internet

Arizona have been identified where the digital coverage is significantly inferior to analog coverage, including Peoria and Dunlap, Illinois; West Hartford and Old Greenwich, Connecticut, Roanoke, Virginia; Des Moines, Iowa; and portions of Arizona. In these areas, installation of digital equipment would lead to poor or no service, putting alarm customers at risk that their alarm signal could not be transmitted.

The lack of a reliable digital signal in all areas of AMPS coverage means that alarm companies must undertake the extra step of checking for digital coverage before installing a replacement radio. As discussed below, at this time, the digital coverage must be by a GSM format network. In those areas in which there is no such coverage, the alarm company simply cannot yet install a replacement cellular unit. To ensure a seamless transition and reliable alarm service for customers, there must be a longer time period when the analog and digital networks overlap.

### **C. CDMA-format replacement alarm radios do not exist.**

All of the digital units are currently being manufactured are designed to operate only on GSM systems. Currently, there are *no* alarm radio units commercially available that operate on the CDMA air interface. This lack of CDMA replacement equipment will leave many alarm customers without adequate coverage. There are geographic areas that have only CDMA coverage, and other areas where CDMA is the only network with sufficient signal strength to provide reliable monitoring services. Examples include, but are not limited to various cities in Virginia, Georgia and large portions of South Dakota.

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server is temporarily down, the alarm signal cannot be sent. Moreover, as the Commission is aware, the alarm industry is experiencing problems with VOIP services connecting to alarm panels.

ADT estimates that the lack of CDMA alarm radios will affect 40,000 to 50,000 customers that currently utilize AMPS alarm devices in areas that do not have reliable GSM coverage.

**D. There is insufficient time for replacement installations.**

As described above, the alarm industry was unable to embark on the process of replacing AMPS-based alarm radios for the first three years of the five year transition period because there was no equipment; and during the fourth year of the transition period, the supply of GSM-based digital alarm radios has been growing from a trickle to a volume that still provides only a portion of the replacement radios needed, due to the demand for new digital installations. This leaves the alarm industry less than fifteen months to obtain all of the necessary replacement radios, and install and activate these radios in the protected premises. This last step will prevent the alarm industry from avoiding the adverse affects of the AMPS sunset, even if it is assumed that the equipment supply becomes unlimited in the immediate future. There is simply not enough time to replace more than a million alarm devices.

Alarm signaling radios are generally mounted in attics, crawlspaces and other locations not readily accessible; and in every instance the digital upgrade will require that a service call be arranged, since the replacement radio must be installed by a trained and licensed alarm technician. It is estimated by NBFAA (based on member input) that replacement of each radio will require approximately three man hours by a trained technician. Even the largest alarm company, ADT (which can achieve the greatest

economies of scale) estimates that its average replacement time is 2.5 hours. For smaller companies, this time is increased.

Each service call will take the technician multiple hours, since he or she must remain at the customer location after the installation to verify that (1) the wireless carrier has activated the digital unit; and (2) communications with the alarm company central station are successful. While alarm companies maintain enough technicians on staff to accommodate new orders and routine maintenance of existing customers, these companies do not currently have the extraordinary level of staffing that will be needed to change out more than a million radios in a slightly over one year. It will take several months at best to ramp up for such an undertaking.

In the case of residential installations, it is often difficult to set up the appointment for an equipment upgrade because the homeowner is at work during business hours. Industry statistics reveal that 25 percent of appointments require rescheduling, due to the customer's unavailability when a technician arrives at their home/business. This factor must be added when calculating total installation hours for at least a million digital radio replacements. As detailed in ADT's October 4, 2006 *Ex Parte* Comments, assuming unrestricted availability of replacement radios in October 2006 (16 months prior to the AMPS Sunset), the industry would be required to convert an average of 62,500 units per month. Using an average of 2.5 hours per installation (i.e., the best case scenario), it is estimated that the 62,500 digital conversions per month will take 156,250 hours per month for 16 months. With the 25 percent rescheduling factor, conversion time increases to over 195,000 hours per month, or the equivalent of 4,875 additional trained technicians

working 40 hours per week for 16 months. A labor pool with the proper training and skill sets to carry out the needed one million conversions is simply not available at this time. Moreover, as discussed above, the availability of replacement radios as of October 2006 was not unlimited; and this ambitious replacement schedule does not take into account the demand for digital radios created by new customer orders. There is approximately 14 months until AMPS Sunset which can be equated to over 71,000 industry conversions to upgrade the existing one-million customers. Accounting for new customer demand, the industry will require close to 80,000 new digital alarm radios per month. Aside from the equipment supply issue, this puts a further drain on the limited pool of qualified alarm technicians.

The AMPS retrofit process creates a substantial drain on the back office resources of alarm companies as well. In addition to the work that must be performed once the technician is at the customer's premises, each AMPS replacement requires the following tasks:

- Determine if GSM coverage is available at an adequate signal strength;
- Contact the customer to arrange a technician visit;
- Coordinate with the Central Station to make sure that the new communications path has been properly implemented.

Absent extension of the sunset date, the impact on public safety could be severe, because arson, accidental fires and burglary can result in the death of innocent persons. As noted above, central station alarm companies install the analog cellular units at the customer's premises as a radio mechanism to report a fire or break in to the central

monitoring station. These radio units are deployed at the customer's premises because burglars and arsonists often attempt to disable the transmission of alarm signals to the Central Station by cutting the telephone lines ordinarily used to transmit these signals. If the analog alarm radios stop working before they can be replaced, many fires and burglaries will simply go unreported in real time, thus increasing the odds that innocent persons will be seriously injured or killed, and reducing the odds that the malefactors will be captured quickly and prevented from engaging in other similar crimes at other locations. In the case of a fire, much more widespread damage can result if the alarm signal is not immediately relayed. And in the case of consumers using their alarm radios to relay medical alert signals, the threat to life and health from failed radio operations is obvious.

#### **IV. The Current Sunset Will Adversely Effect Victims Of Domestic Abuse.**

The alarm industry is using analog cellular devices to help protect the victims of domestic violence, one of the groups recognized in WT Docket No. 01-108 as requiring access to analog service until a replacement technology can be deployed. The AMPS Sunset Order includes domestic abuse victims as part of the group of "emergency only" cell phone users, and projects that enough digital cell phones will be donated to battered women's shelters by the AMPS sunset date to replace any analog phones still in use.<sup>22</sup> However, this assumption does not take into account the abuse victims that are protected by AMPS alarm radios.

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<sup>22</sup> AMPS Sunset Order, para. 25.

Some of the domestic abuse victims protected by AMPS alarm radios are clearly identifiable. For instance, the National ADT AWARE® (Abused Women’s Active Response Emergency) program helps to protect people from abusive partners. In participating markets, victims who are at the highest level of risk for lethal attack are selected by law enforcement officials, domestic violence shelter administrators and representatives of prosecutor’s offices to be provided with an electronic security system, wireless emergency pendant (or “panic button”) and 24-hour monitoring. If a victim feels threatened when in their home or yard, the pendant’s button is pressed and a signal is sent through the alarm communication device. The police/authorities are then notified by ADT’s Monitoring Center. The cellular component drastically reduces the possibility that an abuser can defeat the system by cutting the phone line or preventing the victim from dialing a traditional phone. The panic button sends the alarm upon the press of a single button. This solution is integral to providing a high level of protection to this extremely vulnerable segment of the population. To date, most ADT AWARE® kits contain AMPS cellular radios which must be replaced by digital devices.

The ADT AWARE® program has been established in 170 communities, including but not limited to the major metropolitan areas of Atlanta, Denver, Detroit, New York, San Francisco, Seattle, St. Louis and Pittsburgh, as well as multitudes of smaller communities throughout the country. The program is credited with helping to save the lives of at least 34 people in the 14 years since its founding, and has enabled thousands of persons to summon help when placed in a position of personal threat. The ADT AWARE program is free. There is no charge to the victims or their communities. Testimonials from beneficiaries and administrators of the AWARE program were included as

Attachment A to ADT's October 4, 2006 *Ex Parte* Comments. As noted by Walt Monegan, Anchorage Chief of Police, "The AWARE program provides a viable alternative should a victim be unable to reach a telephone to summon help. The cellular backup incorporated into the AWARE program security equipment eases the constant fear and concern victims feel. It gives me peace of mind as well, knowing our citizens are able to live a less stressful life."

As important as the AWARE program has become to the protection of battered women, there is an even larger class of domestic violence victims protected by AMPS alarm devices that cannot be readily identified. In particular, many abuse victims simply subscribe to an alarm service to protect them from their abuser. The alarm industry has no way of knowing which AMPS radios to replace first, in order to single out and protect victims in this situation.

Unfortunately, domestic violence is a widespread problem. It is estimated that 1 in 4 women will experience domestic violence in their lifetime.<sup>23</sup> Intimate partner violence results in nearly two million injuries and 1,300 deaths nationwide *every year*.<sup>24</sup> Unfortunately, a high rate of domestic abuse goes unreported. From 1992 to 2000, only 54 percent of the violent crime committed by intimates was reported to the police.<sup>25</sup> A significant number of the millions of abuse victims in the country subscribe to alarm

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<sup>23</sup> National Center for Victims of Crime, [www.ncvc.org](http://www.ncvc.org).

<sup>24</sup> Centers for Disease Control and Prevention 2003 (<http://www.cdc.gov/ncipc/factsheets/ipvfacts.htm>).

<sup>25</sup> Source: Reporting Crime to the Police, 1992 -2000, Bureau of Justice Statistics, U.S. Department of Justice, October 2001. See [http://www.snbw.org/articles/unreported\\_violence.htm](http://www.snbw.org/articles/unreported_violence.htm).

services, including the panic button capability, to keep them safe from their abuser. Since AMPS radios provide the radio link for a large number of these victims, an interruption in AMPS service would place these persons in danger. And because the alarm industry has no way of identifying domestic violence victims who are not part of a specific program like AWARE, the industry must replace all existing AMPS radios in order to ensure that all abuse victims remain protected. As described above, it does not appear that this gargantuan task can be accomplished by the current AMPS sunset date.

Therefore, the Commission must make sure that the Sunset deadline does not deprive this protected class of analog users of their link to emergency assistance. As the Commission has noted, “we seek to ensure that eliminating the analog compatibility standard does not adversely affect existing analog subscribers, or groups that are particularly dependent on access to analog-based cellular technology. We are therefore reluctant to eliminate this requirement if doing so will significantly impair the access of these users to wireless telecommunications services.”<sup>26</sup> While the Commission based the AMPS Sunset date in part on the *assumption* that five years would be adequate for battered women and other emergency-only radio users to migrate to digital technology through natural churn, this assumption does not apply to victims using fixed alarm radios. Since the Commission’s assumption regarding the availability and deployment of digital replacement radios has not transpired in the manner originally assumed by the AMPS

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<sup>26</sup> Year 2000 Biennial Review – Amendment of Part 22 of the Commission’s Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and Other Commercial Mobile Radio Services, WT Docket No. 01-108, *Notice of Proposed Rule Making*, 16 FCC Rcd. 11169 (2001) (the “AMPS Sunset NPRM”), at Para. No. 31.

Sunset Order, the Commission should revisit this assumption and extend the Sunset deadline.<sup>27</sup>

**V. Commission precedent supports modifying the AMPS sunset in the face of changed circumstances.**

Case precedent dictates that, under the circumstances present here, the sunset date be extended by an additional two years. As noted above, in specifying the five-year sunset period, the Commission predicted that by February 18, 2008 digital alternatives would be widely available to classes of customers who were forced to rely upon analog service as of the time the AMPS Sunset Order was released. Those predictions have proven untrue in the case of AMPS alarm radio users, as described above. Reviewing courts have held that the Commission must review its predictive judgments when circumstances change. *See, e.g., Cellnet Communications, Inc. v. FCC*, 149 F.3d 429, 442 (6<sup>th</sup> Cir. 1998) (deferring to the Commission’s predictions about the level of competition, but stating that, if the predictions do not materialize, the Commission “will of course need to reconsider its [decision] in accordance with its continuing obligation to practice reasoned decision-making”); *Aeronautical Radio, Inc. v. FCC*, 928 F.2d 428, 445 (D.C. Cir. 1991) (deferring to the Commission’s predictive judgment “with the caveat, however, that, should the Commission’s predictions ... prove erroneous, the Commission will need to reconsider its [decision] in accordance with its continuing obligation to practice reasoned decisionmaking”). In this proceeding, the Commission based the AMPS sunset date in part on the *assumption* that five years would be adequate for

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<sup>27</sup> Unfortunately, the provision of panic button service to domestic violence victims has not been a high profile program, and it has not been a subject of focus by either the cellular industry or the Commission in evaluating the impact of the AMPS Sunset. Thus, to date there has been no “customer outreach” to this category of AMPS users, and no reporting about this aspect of the impending analog shut

battered women, emergency-only radio users, alarm system users and others to migrate to digital technology based on the introduction of digital substitutes through natural churn. AMPS Sunset Order, para. 25. Unfortunately, substitute digital alarm equipment was not available for the first three years of the transition, and is still not available in all necessary formats and in sufficient quantities to upgrade all customers. Moreover, the “radio exchange” process will take much longer for fixed AMPS alarm radios, because they must be installed by a trained technician (as opposed to AMPS mobile phones, which can be traded in by the customer when they wish to upgrade their handset). Therefore, the Commission’s assumption about the timetable for the AMPS transition must be corrected.

In the past, the Commission has extended regulatory compliance deadlines where the equipment necessary to meet the deadline was not readily available to a distinct class of persons. E-911 Non-Nationwide Carriers Order (Order to Stay), 17 FCC Rcd. 14841 (2002); see also Leap Wireless International, Inc., 16 FCC Rcd. 19573 (Comm. Wir. Div., WTB 2001)(granting extension of time so that licensee might deploy high data rate wireless technology that was not available in time to meet five-year construction requirement); Monet Mobile Networks, Inc., 17 FCC Rcd. 6452 (Comm. Wir. Div., WTB 2002) (granting extension of time so that licensee might deploy high data rate wireless technology that was not available in time to meet five-year construction requirement); and Warren C. Havens, Mimeo DA 04-2100, adopted July 12, 2004 (granting extension of the five-year construction requirement for 220 MHz licensees due to unavailability of equipment in time to meet construction deadline).

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down. Petitioners urge the Commission to take this important safety program into consideration in deciding whether to extend the Sunset deadline.

Petitioners note that the need of the central station alarm industry to seek an extension of the sunset date may be attributable, at least in part, to or limited notification by the nationwide cellular carriers to AICC member companies regarding the upcoming sunset date. Additional notification could have encouraged the industry to internally ramp up for the replacement effort, and prod the equipment manufacturers into developing the necessary replacement equipment and making sufficient quantities commercially available in time to meet the February 18, 2008 sunset date. The only instance of notification that AICC has been able to identify is a communication from Verizon to equipment manufacturer Telular last summer, nearly three years after the AMPS sunset was decided by the FCC. Customer education about the analog sunset is key to a smooth transition, and the Commission has made it clear that education efforts are to be reviewed in the context of the current reporting requirement:

Such carriers, in their reports, may also be required to describe their plan for informing its subscribers, the public and other interested parties regarding plans to discontinue analog service.

AMPS Sunset Order, para. 31. In making this observation, AICC is not seeking to cast blame on the cellular industry, for analog cellular alarm signaling is not one of the higher profile uses of the AMPS capability. Indeed, the impact of the AMPS sunset on the radios used in alarm customer premises was not immediately apparent to the alarm industry. Nonetheless, the lack of awareness of how the AMPS sunset would affect alarm operations, and the lack of adequate notice or discussion about the issue, has hampered the ability of the alarm industry to react to this situation, and perhaps has also negatively impacted manufacturer readiness to provide digital replacement equipment for

alarm monitoring functions. The Commission should take this fact into consideration when determining whether an extension is warranted.

Upon learning of the impact of the AMPS sunset on alarm operations, Petitioners have consulted with both the Cellular Telecommunications & Internet Association (CTIA) and the largest cellular carriers, all of whom were willing to discuss the alarm industry's AMPS transition issues. Petitioners will continue discussions with the major cellular carriers to work toward what will hopefully be a mutually agreeable AMPS transition plan. However, at this time, it does not appear that the alarm industry can replace all of the incumbent AMPS radios by February 18, 2008, and cannot be assured that the cellular industry will voluntarily extend the deadline. Therefore, Petitioners compelled to urge that the Commission extend the sunset date.

Petitioners also requests that the Commission build into any order concerning the AMPS transition an instruction that all affected parties work together to develop a reasonable notification procedure, so that AMPS radio users have fair notice (preferably at least 180 days) in advance of when AMPS will be shut down in a particular geographic area. This notification process would allow alarm companies and other affected AMPS customers to devote their transition resources in an orderly and efficient fashion, rather than scrambling to change out radios throughout the entire country all at once. This procedure has been discussed with cellular industry representatives, and AICC will continue to pursue the specifics of a notification procedure in voluntary discussions with the cellular industry. However, it would be in the public interest to incorporate this requirement into the framework of a revised AMPS transition protocol.

**VI. The Commission should decide on the issue of extending the AMPS sunset expeditiously, in response to this Petition.**

As described above, the replacement of more than one million AMPS alarm devices will be a massive undertaking, requiring the alarm industry to marshal significant resources. Certainly, an extension of this deadline as requested herein will benefit this effort greatly. However, in order for an extension of the AMPS sunset date to afford alarm service providers the ability to logically plan the deployment of their resources, it should be issued as soon as possible, and preferably at least nine months to a year before the current AMPS sunset of February 18, 2008. Otherwise, alarm companies are placed in the position of attempting to replace all AMPS radios all at once, rather than systematically planning replacement efforts. Without a systematic plan, more companies will be vying for the limited equipment and limited trained resources thereby decreasing the odds for success.

**VII. The Commission should ensure that AMPS service is not prematurely reduced.**

The Commission adopted the analog cellular sunset rule as part of its Year 2000 Biennial Regulatory Review of regulations codified in Part 22 of the Rules. As described above, the rule provides that, “[u]ntil February 18, 2008, each cellular system that provides two-way cellular mobile radiotelephone service” must “maintain the capability to provide compatible analog service (‘AMPS’) to cellular telephones designed” to operate using the analog air interface;<sup>28</sup> and to “[p]rovide AMPS, upon request, to subscribers and roamers using such cellular telephones while such subscribers are located in any portion of the cellular system’s CGSA where facilities have been constructed and

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<sup>28</sup> Rule Section 22.901(b)(1).

service to subscribers has commenced.”<sup>29</sup> As a concurrent requirement, the Commission specified that, until February 18, 2008, “[c]ellular licensees must allot sufficient system resources such that the quality of AMPS provided, in terms of geographic coverage and traffic capacity, is fully adequate to satisfy the concurrent need for AMPS availability.”<sup>30</sup>

Despite these clear cut requirements of Rule Section 22.901, the alarm industry is finding that analog service has suffered degradation in certain areas, with potentially harmful consequences for existing users. For example, ADT has already documented instances of reduced AMPS service quality in several metropolitan areas, including markets such as Miami, Florida, Totowa, New Jersey and the Gulf Coast region. The potentially adverse consequences of these analog service reductions are immediate, since ADT’s customers may be unknowingly left without service to ADT’s Central Monitoring Center at the time of an emergency. Thus, if an emergency occurs, secured premises in areas in which AMPS coverage has been compromised may not be able to reach help via their alarm radios.

Such service problems across the country appear to be due to the reconfiguration or removal of AMPS channels ahead of the February 2008 Sunset date. Some network operators are reclaiming part of the spectrum devoted to analog service ahead of time, apparently in the mistaken belief that sufficient analog coverage still exists from nearby towers. This practice has put thousands of customers at risk that their alarm signals may not be transmitted. In several cases, the cellular carrier has restored service when the issue was brought to their attention, but only after the reliability of the alarm customers

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<sup>29</sup> Rule Section 22.901(b)(2).

<sup>30</sup> Rule Section 22.901(b)(2).



## **ATTACHMENT A**



# Upgrade Requires Trained Personnel

- Approximately one-million analog cellular alarm radios are currently installed in homes, businesses and government locations nationwide.
- Every unit requires an on-site visit by a trained technician to: remove the analog unit; install a new digital unit; and establish a connection with the Central Monitoring Center.
  - License requirements vary by state
  - Estimated average install time is 2.5 hrs
- Upgrades **CAN NOT** be self-installed by customers.



Analog radio in control panel



Analog radio attached to control panel

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