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VIA ELECTRONIC SUBMISSION

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
45 L St. NE
Washington, DC 20554

Re: *Petition for Emergency Relief in 3G Sunset Transition for Central Station Alarm Subscribers*, GN Docket No. 21-304

Dear Ms. Dortch:

As AT&T explained in its opposition, AICC's petition to delay AT&T's long-announced February 2022 3G sunset would throw a monkey wrench into AT&T's carefully planned 5G transition.¹ When AICC filed that petition last May, it identified no plausible legal basis for such extraordinary Commission action and attached no declarations or made any other effort to substantiate the disputed factual claims that were AICC's burden to prove. Four months later, after AT&T's opposition called out those deficiencies, AICC has now filed reply comments twice as long as the petition itself, with a few declarations thrown in for the first time. But this belated effort does not plug the holes in AICC's analysis. *First*, the Commission lacks statutory authority to delay AT&T's 3G sunset, and AICC's latest attempt to establish such authority fares no better than its previous one. *Second*, AICC's rationales for delaying that sunset remain irreconcilable with the presumptively truthful assurances that its member companies have given investors about the business effects of COVID and the global microchip shortage. *Third*, AICC's requested delay would threaten AT&T's network performance for basic technical reasons that AT&T previously explained but that AICC appears not to understand.

1. The Commission Lacks Legal Authority to Delay AT&T's 3G Sunset.

As noted in AT&T's opposition (at 6-9), the Commission lacks legal authority to adjudicate this business dispute between AT&T and its alarm-company customers. Nothing in AICC's reply supports a contrary conclusion.

a. AICC's invocation of Title II authority is meritless.

AICC renews its claim that the enterprise IoT services AT&T provides to alarm companies are "common carrier" services subject to the Commission's Title II authority. *See* Reply 9-16.

¹ As used below, "Opp." refers to AT&T's opposition to AICC's petition, filed in the opening comment round, and "Reply" refers to AICC's reply comments, filed contemporaneously with AT&T's own reply comments. AT&T respectfully refers the Commission to its reply comments for responses to the parties that filed opening comments on topics unrelated to the alarm industry.

But the Communications Act forestalls any exercise of Title II authority here for two independent reasons.²

First, the relevant services are individually negotiated and offered on a private carriage rather than common carriage basis. *See* Opp. 7; *id.*, Ex. A (Declaration of Lisa Park) (“Park Decl.”) ¶¶ 2-3. AICC responds that certain unidentified contractual terms in various AT&T contracts are common across alarm-company customers. Reply 13-14. But that is an observation without a punchline. Nearly every contract in any industry contains *some* terms that also appear in similar contracts between similar parties, but that does not make any of the parties to such contracts a common carrier. As a fallback, AICC notes that “[o]ne may be a common carrier though the nature of the service rendered is sufficiently specialized as to be of possible use to only a fraction of the total population.” *Id.* (emphasis omitted) (quoting *Nat’l Ass’n of Regul. Util. Comm’rs v. FCC*, 525 F.2d 630, 642 (D.C. Cir. 1976) (“*NARUC*”)) (emphasis omitted). That is true but also irrelevant. AT&T is not arguing that a service needs to be “of possible use” to the public at large to qualify as common carriage. Rather, it has argued and indeed shown that, even within the small universe of AT&T’s alarm company customers, AT&T “make[s] individualized decisions, in particular cases, whether and on what terms to deal.” *NARUC*, 525 F.2d at 641. AICC does not appear to dispute that point, which rules out a common carriage classification. *See id.* at 641-42.

Second, irrespective of the distinction between private and common carriage, Section 332(c)(2) independently precludes any exercise of Title II authority because these point-to-point IoT services are not “interconnected with the public switched network” and are thus “private mobile services” categorically exempt from common carrier regulation. *See* Opp. 7-8 (citing 47 U.S.C. § 332(c)(2) & (d)(1)-(2)); Park Decl. ¶ 5. AICC does not dispute that these IoT services are mobile in nature. *See* Opp. 7-8 (citing 47 U.S.C. § 153(33) & (34)). Instead, it argues that they are “commercial mobile services” rather than “private mobile services” because, it says, they “are interconnected, through the PSTN, with alarm central stations through conventional POTS lines.” Reply 10-11.

That argument is untenable. AICC does not deny that the relevant AT&T service consists of mobile point-to-point links, each of which connects a single end user with a single alarm company. For statutory classification purposes, it makes no difference whether AT&T uses PSTN technology behind the scenes to create such point-to-point links, whether an end user can talk to the alarm company on the other end of that point-to-point link, or whether the alarm company can combine this AT&T service with some *other* service (offered by AT&T or anyone else) that *does* offer access to the full PSTN. Instead, the statutory classification question turns on “what the consumer perceives” it is receiving from AT&T when it buys this service. *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 990 (2005). And neither the alarm company nor an end user can use *this point-to-point IoT service* to reach the hundreds of millions of points on the public switched telephone market. This service, therefore, is not

² Even if these services *were* subject to the Commission’s Title II authority, AICC’s request for Commission intervention would still be meritless because AT&T’s network-migration plans are eminently reasonable under the circumstances, for the reasons set forth in Sections 2 and 3 below.

“interconnected with the public switched network”; it is a “private mobile service.” And it is thus categorically exempt from Title II regulation.

Finally, AICC argues that, even if a given point on each point-to-point link can reach only the other point, the link should still be deemed “interconnected with the public switched network” because the Commission has made clear that a service can still be “interconnected” even if it “provides general access to points on the public switched network but also restricts access in certain limited ways.” Reply 12 (quoting language now codified at 47 C.F.R. § 9.9(2)). But this is not such a service. The “restrict in certain limited ways” qualifier is designed to capture ordinary telephone services that “provide general access” to the full PSTN except for, say, toll 1-900 numbers. But by definition, a point-to-point IoT service does *not* provide “general access to points on the public switched network”; it provides access to only *one* such point and excludes all others. It is thus the very antithesis of an “interconnected service.”³

b. AICC’s invocation of Title III authority is meritless.

AICC alternatively argues that the Commission may predicate liability on the provisions of Title III at issue in *Cellco Partnership v. FCC*, 700 F.3d 534 (D.C. Cir. 2012)—namely, Sections 303(b), 303(r), and 316. AICC’s claim that AT&T has given those provisions “short shrift” (Reply 16) is perplexing because AICC itself did not cite any of these provisions—or *Cellco*—in its petition. That omission is understandable because *Cellco* and the cited provisions do not support AICC’s requested relief, for reasons evident on the face of both *Cellco* itself and the *Data Roaming Order* under review there.⁴

In that order, the Commission directed providers of mobile data services to offer roaming arrangements to other such providers but took pains to emphasize the narrowness of that obligation. Among other things, the Commission stressed that “it is reasonable for a provider *not* to offer a data roaming arrangement to a requesting provider that is *not technologically compatible*” and “to condition the effectiveness of a data roaming arrangement on the requesting provider’s provision of mobile data service to its own subscribers *using a generation of wireless technology* comparable to the technology on which the requesting provider seeks to roam.” *Data Roaming Order* ¶ 43 (emphases added). In other words, the Commission rejected the same regulatory relief that AICC seeks here—a right to compel a provider to accommodate a third party’s demand to use obsolete technologies.

³ Public Knowledge renews its assertion that the Commission may justify granting AICC’s petition, which is confined to enterprise IoT services, by invoking its Title II authority over AT&T’s *mass market voice services*. Public Knowledge *et al.* Reply Comments at 4-5. Even if such bootstrapping would be legally permissible when accompanied by a valid factual predicate, which it would not be, neither Public Knowledge nor anyone else has identified any genuine basis for concern that AT&T’s 3G sunset will strand ordinary voice customers. To the contrary, AT&T has been regularly contacting its voice customers about the 3G sunset and *giving away 4G phones for free* to keep them connected. See AT&T Reply Comments at 4-7 & n.22. Any reliance on Title II voice services to mandate AICC’s proposed delay in AT&T’s 3G sunset would thus be arbitrary and pretextual.

⁴ Second Report & Order, *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, 26 FCC Rcd. 5411 (2011) (“*Data Roaming Order*”).

On review, the *Cellco* court upheld these well-cabined data-roaming rules as a valid exercise of the Commission’s authority under section 303(b) to “[p]rescribe the nature of the service to be rendered” by wireless licensees; under section 316 “to modify existing licenses” under certain circumstances if doing so “will promote the public interest, convenience, and necessity”; and under section 303(r) to take various actions “to carry out” other provisions of Title III unless “inconsistent with law.” *Cellco*, 700 F.3d at 542 (alteration in original) (citing 47 U.S.C. §§ 303(b) & (r), 316). The court limited that holding in two relevant respects, each of which independently forecloses AICC’s argument here.

First, the court reaffirmed that, under Supreme Court precedent, “the Commission lacks authority to invalidate licensees’ contracts with third parties,” but it observed that the challenger in *Cellco* (Verizon) “nowhere suggest[ed] that the data roaming rule will void third-party contracts.” *Id.* at 543 (citing *Regents of Univ. Sys. of Ga. v. Carroll*, 338 U.S. 586, 602 (1950)). Here, in contrast, AICC’s proposed remedy *would* void critical provisions of AT&T’s alarm-company contracts, which obligate AT&T to maintain its 3G network only “until December 31, 2021” and otherwise carefully reserve AT&T’s right to “terminate 3G ... at any time in its sole discretion.” Opp. 12-13 (quoting contractual language).⁵

Second, the *Cellco* court also accepted Verizon’s argument that, under *MCI Telecommunications Corp. v. AT&T Co.*, 512 U.S. 218 (1994), “Title III gives the Commission no authority to make ‘fundamental changes’ to the terms of existing licenses.” 700 F.3d at 543. The court went on to find that the *Data Roaming Order* had not crossed the line separating a permitted “modification” from a prohibited “fundamental change” because it had imposed only a “limited obligation to offer data-roaming agreements.” *Id.* at 543-44. Among that obligation’s other limitations, the court noted, the Commission had specifically “excuse[d] providers from offering data roaming where it is not ‘technically feasible.’” *Id.* at 540. In contrast, the relief AICC seeks here *would* “fundamentally change” AT&T’s licenses (*id.* at 543) by imposing—for the first time, and at the eleventh hour—an obligation to use an obsolete technology incompatible with efficient spectrum usage, even though AT&T is willing and able to provide *the same services* using current technologies.⁶

⁵ As AT&T has explained, this contractual language—along with trade press articles—placed alarm companies on notice of AT&T’s sunset plans in 2016 and 2017, well before AT&T publicly announced those plans in February 2019. Opp. 12-13. AICC responds only that AT&T had not completed its 2G sunset until January 1, 2017 and that it was somehow unreasonable to “expect the alarm industry ... to begin replacing the 3G radios they had installed just months before.” Reply 39. This response is inscrutable. 4G radios were available many years before this language appeared. To the extent alarm companies were still installing 3G radios at the time or thereafter, the contractual language gave them *five years* of notice that they would have to upgrade such devices sometime before year-end 2021. AICC has no plausible basis for deeming such notice inadequate.

⁶ As AT&T has explained (Opp. 8-9), AICC cannot independently rely on Title I authority under Sections 1 and 4(i) of the Communications Act (47 U.S.C. §§ 151, 154(i)) because such authority is available only “to support [the Commission’s] exercise of a specifically delegated power” under some other, substantive provision of the Act. *See Comcast Corp. v. FCC*, 600 F.3d 642, 659 (D.C. Cir. 2010). In response, AICC does not contend that Title I provides an independent basis for granting this petition; instead, it argues only that the cited Title III provisions supply the needed “‘specifically delegated power’ to which regulations protecting alarm companies could be considered ‘ancillary.’” Reply 17. In other words, AICC has abandoned any Title I argument independent of its Title III argument, which is itself meritless for the reasons discussed in the text.

2. AICC Provides No Plausible Justification for a Delay in the 3G Sunset.

Even if the Commission had statutory authority to grant this petition, AICC identifies no legitimate policy basis for doing so. Alarm companies have been on notice for years of AT&T's 3G sunset plans, and neither COVID nor the global microchip shortage supports AICC's request to delay that sunset and slow-roll AT&T's 5G transition.

a. *AICC's COVID-based rationale for delay is meritless.*

AICC claims that consumer fear of COVID exposure from alarm-company technicians has "caused significant delays in being able to replace 3G alarm signaling radios in customer premises for more than one year." Reply ii. As AT&T has explained (Opp. 14-22), that claim is flatly at odds with what AICC's member companies have told Wall Street. Specifically, those companies' CEOs have assured investors that—

- "COVID-19 dynamics shifted from a meaningful headwind in the second quarter [of 2020] to a tailwind in Q3," when business started to skyrocket;⁷
- that soon after the beginning of the pandemic (April-June 2020), alarm companies "quickly moved from navigating during a challenging time to simply thriving";⁸
- that consumers "got very comfortable with the sort of COVID precautions that ... service providers were taking for installation and for sales";⁹ and
- that business "has been particularly strong through the pandemic period."¹⁰

Unable to distance itself from these and similar statements by its member companies' CEOs, AICC responds that the Commission should discount them because "Wall Street investor calls are traditionally optimistic, as companies seek to put their best foot forward." Reply 21. But a public company's statements to investors must in fact be truthful and not misleading. Ordinary

⁷ Resideo Technologies, Inc. [f/k/a Honeywell], FQ3 2020 Earnings Call Transcripts at 4 (S&P Glob. Mkt. Intel. Nov. 5, 2020); *accord* Alarm.com Holdings, Inc., FQ3 2020 Earnings Call Transcripts at 10-11 (S&P Glob. Mkt. Intel. Nov. 5, 2020) (alarm industry success "may be induced by COVID" because "customers are home, they're ready to take meetings," and "want to invest in their home"); Vivint Smart Home, Inc., FQ3 2020 Earnings Call Transcripts at 16 (S&P Glob. Mkt. Intel. Nov. 4, 2020) (alarm companies "have benefited from people being home"—and thus able to take appointments—and "being more engaged with their home"); *see also* Vivint Smart Home, Inc., FQ2 2021 Earnings Call Transcripts at 10 (S&P Glob. Mkt. Intel. Aug. 3, 2021) ("So you're seeing ... more people in the home, thinking about their home, I think that's here to stay. And so we've seen some stronger demand").

⁸ ADT Inc., FQ2 2020 Earnings Call Transcripts at 4-5 (S&P Glob. Mkt. Intel. Aug. 5, 2020).

⁹ Alarm.com Holdings, Inc., FQ4 2020 Earnings Call Transcripts at 14 (S&P Glob. Mkt. Intel. Feb. 25, 2021); *see also* Alarm.com Holdings, Inc., FQ2 2020 Earnings Call Transcripts at 5 (S&P Glob. Mkt. Intel. Aug. 5, 2020) ("Consumers ... seemed mostly comfortable with allowing our partners to operate inside their property.").

¹⁰ Alarm.com Holdings, Inc., FQ2 2021 Earnings Call Transcripts at 6 (S&P Glob. Mkt. Intel. Aug. 5, 2021); *see also* Opp. 15-19 (noting similar reports of new-installation success for other leading alarm companies throughout the pandemic period).

Americans invest billions of dollars on the premise—enforced under the securities laws¹¹—that corporate officers are speaking candidly when they explain how their businesses are coping with current market conditions. Given the consequences of violating that trust, the statements of corporate executives in earnings calls can be presumed to be as accurate as sworn testimony or declarations. Here, those statements are irreconcilable with AICC’s account of the facts.

Indeed, even the alarm-industry trade press confirms that “[t]he tumultuousness of the past year certainly benefited the security industry” and that “many in the security industry fared much better than they originally expected — some, in fact, had their best year yet.”¹² In the words of one observer: “When I first learned about the pandemic, I wouldn’t have believed that people would allow installers into their homes. ... I thought business would take a huge hit; but in fact, the business didn’t miss a beat. Even now, we are still seeing a huge demand for both product and installers, and that has remained consistent through the year.”¹³ These unbiased, ordinary-course accounts, like the investor statements, contradict the basic premise of AICC’s petition.

Equally unpersuasive are AICC’s other efforts to brush aside the alarm industry’s pandemic-era successes. First, AICC suggests that the pandemic now impedes technician visits more than it did a year ago because of the recent “spike in the significantly more contagious COVID-19 Delta variant.” Reply 22. The reality is exactly the opposite. The Delta variant presents a serious threat to *unvaccinated* people. But the unusually risk-averse consumers who might otherwise have resisted technician visits during the pre-vaccination era are now overwhelmingly likely—because of that same risk-aversion—to be vaccinated, and they are now protected from serious disease.¹⁴ Those consumers have thus had far less to fear from technician visits since Delta’s rise than during 2020. Alarm industry investor statements confirm that point. When asked in an August 2021 earnings call whether “the Delta variant” had affected business, Alarm.com’s CEO

¹¹ See, e.g., 15 U.S.C. § 77q(a)(2); *id.* § 78j(b).

¹² Courtney Wolfe, *COVID-19 & The Security Industry: One Year Later*, SDM, (Mar. 1, 2021), <https://www.sdmmag.com/articles/99208-covid-19-the-security-industry-one-year-later>.

¹³ *Id.* AICC’s petition offered no substantiation at all for its implausibly dire account of COVID’s effect on the home-alarm industry. It now attaches two ostensibly relevant declarations to its reply comments. One is from the head of a “family-owned and operated” alarm company that serves a “tight knit community” in Minnesota; charges its customers “money on the upgrades” necessary to keep their business after the 3G sunset; and unsurprisingly encountered some “reluctance” from customers to pay for technicians to enter their homes for that purpose “from March into August 2020.” Reply, Attach. D, at 1, 3. The other is from the president of a “locally-owned and operated” company based in Kentucky that “serve[s] less than 20,000 customers” and claims only that “Covid concerns resulted in” some unspecified number of “appointment cancellations from March 2020 until well into the Fall.” *Id.*, Attach. E, at 1. These declarations do not cast doubt on the central message of the investor presentations and trade press article quoted above—that, apart from the first months of the pandemic in spring 2020, the alarm industry as a whole was perfectly capable of dispatching technicians into people’s homes for installations and upgrades.

¹⁴ See Ctrs. for Disease Control & Prevention, *Key Things to Know About COVID-19 Vaccines*, <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/keythingstoknow.html> (last updated Oct. 7, 2021) (“COVID-19 vaccines are effective at helping protect against severe disease and death, including from variants of the virus that causes COVID-19 currently circulating (e.g., Delta variant). ... People can sometimes get COVID-19 after being fully vaccinated. However, this only happens in a small proportion of people, even with the Delta variant. When these infections occur among vaccinated people, they tend to be mild.”).

answered: “we haven’t seen any impact on the service provider’s ability to sell and install systems.”¹⁵

Second, AICC claims that alarm companies’ success in winning new customers is somehow irrelevant because “[n]ew subscriber growth is vastly different from service calls to existing homes and businesses. ... The motivations of homeowners who need new systems are not at all comparable to the motivations of existing customers who need to have the 3G upgrade performed.” Reply 23 (quoting Attach. C). This comparison is specious. As the investor presentations confirm, millions of new customers who valued alarm systems but did not yet have them have welcomed technicians into their homes over the past 18 months, despite the pandemic. Yet existing customers—those who had already ordered alarm service before the pandemic—presumably value that service no less than these new customers do. And in general, they are thus no less likely to welcome technicians into their homes to keep their existing alarm systems functional *if they understand the necessity of doing so*. To be sure, they will have little incentive to schedule an appointment for an upgrade so long as they perceive no imminent prospect of losing service otherwise. But that has always been true, with or without a pandemic. It is the job of alarm companies to impress on their customers the need for a prompt upgrade to their alarm systems before a network transition. Any failure to do so is on those companies, not COVID, and cannot justify delaying AT&T’s long-announced 5G transition.

With some exceptions such as ADT, *see* Opp. 5, many alarm companies appear to have assigned a low priority to these 3G radio upgrades because it has been more profitable for them to dispatch technicians to sign up new customers. AICC completely misses this point when it contests AT&T’s observation that “extending service to a new customer is ‘more lucrative’ than retaining existing customers.” Reply 31. Signing up new customers creates new revenue streams whereas upgrading existing customers’ radios does not. Of course, each alarm company *will* have a strong monetary incentive to upgrade those radios before the 3G sunset because otherwise it runs the risk of losing its existing customers—and their *existing* revenue streams—to competing alarm companies that take the 3G sunset more seriously.¹⁶ But those alarm companies that delay upgrading their customers would benefit financially the longer their trade association can persuade this Commission to put off that day of reckoning and thereby delay competition for their company’s embedded customer base.

¹⁵ Alarm.com Holdings, Inc., FQ2 2021 Earnings Call Transcripts at 9 (S&P Glob. Mkt. Intel. Aug. 5, 2021). There is even less basis for AICC’s claim (Reply 30) that COVID has delayed upgrades for “personal emergency response systems” (PERS) such as alarm pendants. Many, if not most, PERS devices do not require an in-person technician visit in the first place. *See* Opp. 21-22 & n.52. Although AICC suggests that many elderly PERS users are cognitively incapable of replacing PERS devices by themselves (Reply 30), it gives no reason why such users could not depend for that simple task on family members, nursing personnel, or others with whom they are in contact anyway. In any event, even if technician visits *were* necessary, they remain safe for vaccinated users, and the elderly were first in line for shots after vaccinations began ten months ago.

¹⁶ That said, many end users whose 3G radios have not been upgraded before the 3G sunset will retain alarm-monitoring functionality even after the sunset because they rely mainly on a *wired* connection to an alarm-company station and have a *wireless* connection only as a fallback, in case their phone line is down. AICC provides no information about how many customers fall into that category.

That, in a nutshell, is why we are correct to characterize AICC's request as anticompetitive. *See* Opp. 3-4. Indeed, AICC confirms that characterization even while disputing it. AICC claims that expecting alarm companies to meet AT&T's long-announced sunset would "set[] up an alarm industry 'Hunger Games,'" requiring each company to "jostl[e] for control of existing customers." Reply 33. But those terms are just synonyms for "competition," which AICC's members would prefer to postpone. Also meritless is AICC's argument that such "jostling" for existing customers would "favor the largest players" in the alarm industry. *Id.* To begin with, AICC identifies no basis for assuming that smaller alarm companies will be any less capable than larger ones of competing for existing alarm customers. But even if there were such a basis, this Commission does not sit as a Small Business Administration for under-resourced alarm companies. It has no business intervening in the competitive dynamics of an industry it does not regulate, particularly when doing so would undermine the Commission's core responsibilities to facilitate the 5G transition and promote efficient uses of spectrum.

Finally, we have not argued, as AICC says, "that alarm companies should have refused new customers during the worldwide pandemic." Reply 32. We have instead observed that "alarm companies have been fully capable since mid-May 2020 of deploying the large numbers of technicians they need and sending them into people's homes to win new customers" and thus "were *also* more than capable of entering homes for the more limited, less time-consuming purpose of swapping out a 3G device." Opp. 20 (emphasis added). Of course, these are not mutually exclusive options. Alarm companies can sign up new customers *and* meet the needs of existing customers at the same time, as they have been doing since the inception of their industry.

b. AICC's "chip shortage" rationale for delay is overstated.

AICC's petition argued that the global chip shortage has independently impeded alarm companies from upgrading obsolete 3G radios. That claim also runs headlong into what AICC's member companies have told their investors. *See* Opp. 24-26. Specifically, the CEOs of major alarm companies very recently assured Wall Street that they have successfully navigated the chip shortage and expect it to present no serious threat to their operations for the remainder of the year.¹⁷ AICC now tries to resolve this contradiction in three ways, none of them persuasive.

First, AICC renews its curious claim that investor presentations should be discounted because they are inherently "optimistic." Reply 37. But the alarm industry cannot have it both ways, assuring investors that chip shortages are manageable while telling this Commission that those same shortages have somehow ground the industry to a halt. Again, because the securities

¹⁷ *See, e.g.,* Alarm.com Holdings, Inc., FQ2 2021 Earnings Call Transcripts at 12 (S&P Glob. Mkt. Intel. Aug. 5, 2021) ("[W]e have ... about 85%, 90% of what we would like to have floating around. So are there shortages of some components? Yes. There are shortages of some components. Are they materially impacting the commercial service providers today? No. ... [T]hus far we have been able to deploy capital in securing the supply chain and keep things moving, I think, pretty effectively. And we feel like that will likely be the case as we go into Q3 and Q4."); Vivint Smart Home, Inc., FQ2 2021 Earnings Call Transcripts at 10 (S&P Glob. Mkt. Intel. Aug. 3, 2021) ("[W]e've navigated through [supply constraints] so far and feel very confident for the balance of the year.").

laws subject corporate executives to a duty of candor, their account is very likely to be the accurate one.

Second, AICC ventures that “[t]he largest members of the industry may have more success obtaining microchips To set policy based on the status of the largest few alarm companies will harm the lion’s share of the industry, which is made up of smaller companies.” Reply 37-38. AICC does not substantiate this speculation. But even if it had, the Commission’s mandate is to promote spectrum efficiency and advanced broadband services for the benefit of consumers, not to equalize resource disparities among the nation’s alarm companies as they compete for the business of legacy customers that still have 3G radios.

Third, AICC argues that the microchips needed for replacement radios “are different from” those “now install[ed] for new customers.” Reply 36 (quoting Attach. C). Even if that is true, it would not mean that alarm companies have had substantially more trouble obtaining the former than the latter—and AICC revealingly stops short of claiming that they have. Indeed, the unsigned and unsworn one-pager AICC elicited on this topic from Vivint appears carefully written to intimate such a claim without actually making it. *See id.*, Attach. C. Vivint asserts only that “[t]he chip shortage has ... *affected the number* of customers that Vivint has been able [to] upgrade to date.” *Id.* (emphasis added). The one-pager does not even assert that the chip shortage has *materially reduced* the number of 3G radios Vivint can upgrade, let alone that the company will face any real difficulty in upgrading most such radios by the February 2022 3G sunset. That is no surprise, given that Vivint’s CEO recently told investors that “we’ve navigated through [global supply constraints] so far and feel very confident for the balance of the year.”¹⁸

3. AICC Ignores the Network Harms It Would Inflict by Delaying AT&T’s 5G Transition.

For the reasons discussed, AICC has not borne its burden of substantiating the premise of its petition: that delaying the 3G sunset would serve some valid public benefit. AICC also has no plausible response to AT&T’s observation that, on the other side of the cost-benefit ledger, delaying the 3G sunset would impair both AT&T’s 5G transition in particular and its network performance in general.

We begin with common ground. AICC does not appear to dispute any of the following propositions, all set forth in our opposition (Opp. 9-11):

- AT&T currently devotes ten megahertz of its 850 MHz spectrum (in the form of 5x5 uplink and downlink channels) to 5G and the other ten megahertz to 3G/UMTS;

¹⁸ Vivint Smart Home, Inc., FQ2 2021 Earnings Call Transcripts at 10 (S&P Glob. Mkt. Intel. Aug. 3, 2021). Similarly vague is the declaration that AICC obtained from an executive at a company called Telular, who asserts only that “specific chips needed for Telular devices are among those affected by the shortage.” Reply, Attach. B, at 2. The executive does not identify which Telular devices he is referring to or state that they are necessary for 3G radio upgrades, let alone quantify what he means by “affected.”

- The current 5x5 uplink and downlink channels devoted to 5G are insufficient to support the high-end network performance expected of 5G technologies;
- Because of spectral efficiencies, doubling the amount of 850 MHz spectrum devoted to 5G will more than double the performance of 5G connections relying on that spectrum;
- To double the 850 MHz spectrum for 5G in this manner, AT&T must retire its 3G/UMTS network, which cannot coexist on the same channel as 5G and cannot serve even a single customer with less than the dedicated ten megahertz it currently occupies;
- Continuing to devote that minimum ten megahertz to 3G wastes scarce spectrum resources because the lingering handful of customers who have not yet upgraded their 3G devices now utilize only 4% of AT&T's total 3G network capacity;
- Doubling the 850 MHz spectrum available for 5G—and thus retiring AT&T's grossly underutilized 3G network—is essential to bringing high-performance 5G connectivity to millions of consumers, particularly those in areas beyond the reach of shorter-propagating C-Band signals; and
- No other spectrum band can substitute for 850 MHz for that purpose within the foreseeable future.

Because AICC cannot contest these points, it belittles, as too narrow for serious consideration, AT&T's desire to create a robust 5G service for consumers “in less populated areas.” Reply iii. But the benefits of doubling the 850 MHz spectrum devoted to 5G will extend well beyond those areas—particularly during 2022, when AT&T will not have completed its multi-year C-Band deployment and some consumers will thus need to rely mainly on 850 MHz spectrum for 5G even in more populous areas. *See* Ex. A (Supplemental Declaration of Kevin Hetrick) (“Suppl. Hetrick Decl.”) ¶ 3. In particular, as traffic volumes on AT&T's network escalate throughout 2022, devoting only narrow 5x5 channels of 850 MHz to 5G would increase the rate of busy-hour “blocking” in AT&T cell sectors across virtually all geographic markets, resulting in more blocked and dropped calls and a decrease in data throughput. *See* Opp. 11; *id.*, Ex. B (Declaration of Kevin Hetrick) ¶ 7.

AICC, which has no expertise in this area, nonetheless professes to have “undertaken a careful review” of AT&T's network challenges and tries to second-guess AT&T's own engineering judgments. Reply 41. It asserts that 5G networks do not “operate as islands” and that, once growing traffic overwhelms AT&T's existing 5x5 channels, the traffic will “default to LTE” on one of AT&T's other spectrum bands. *Id.* at 43-44.

This comment proves only AICC's ignorance of basic engineering realities. As explained in the attached supplemental declaration of AT&T engineer Kevin Hetrick, AT&T does indeed design its networks to ensure that its 5G and 4G/LTE technologies work in harmony. But accelerating data demands will swamp *both its 5G and its 4G/LTE networks* unless AT&T can promptly repurpose the badly underutilized 850 MHz 3G channels to 5G, which is by far the most spectrally efficient technology available today. *See* Suppl. Hetrick Decl. ¶¶ 8-12. AICC and its nominal expert simply ignore that point, presumably because they do not understand AT&T's

complex traffic-migration challenges. *See also id.* ¶ 13 (addressing AICC’s misplaced reference to FirstNet’s 700 MHz spectrum).

Equally perplexing is AICC’s related comment that AT&T’s current sliver of 850 MHz 5G spectrum can handle foreseeable traffic demands because “5G has an even lower adoption rate than 4G” did when it was launched, in part because “the customer 5G experience” on the existing 5x5 channels is “only marginally better than 4G LTE.” Reply 43. This point is entirely circular and, if anything, cuts *against* AICC’s petition. The “customer experience” on AT&T’s 5G network will remain “only marginally better than 4G LTE,” and will deter consumer 5G adoption, *only if AICC succeeds in keeping AT&T from improving the performance of its 5G network by adding needed 850 MHz resources*. AICC essentially invites the Commission to compel AT&T to slow-roll its 5G transition, degrade its customers’ wireless experience, and constrain their data usage, all to accommodate the business interests of alarm-companies that have had years to upgrade their customers’ now-obsolete devices and can still do so if they make it a priority. The Commission should decline that unappealing invitation.

If any questions arise concerning this submission, please do not hesitate to contact me at (214) 757-3357.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Vitanza", with a long horizontal flourish extending to the right.

Robert Vitanza

Exhibit A

SUPPLEMENTAL DECLARATION OF KEVIN HETRICK

I, Kevin Hetrick, pursuant to 28 U.S.C. § 1746 and 47 CFR § 1.16, declare and state as follows:

1. As set forth in my initial declaration of August 30, 2021, I am AT&T's Vice President of Access Construction & Engineering and am responsible for, among other things, deciding how to deploy AT&T's spectrum holdings and other network assets to optimize the company's wireless operations. I submit this supplemental declaration in response to the reply comments filed by the Alarm Industry Communications Committee ("AICC") on September 14, 2021.
2. As explained in my initial declaration, AT&T's 5G network currently uses a ten-megahertz sliver of 850 MHz spectrum in the form of paired 5x5 channels. By year-end 2021, AT&T expects to begin deploying C-Band spectrum for its 5G network. But the C-Band cannot meet all of the demands that will be placed on AT&T's 5G network in 2022. That is true for two basic reasons.
3. First, many geographic areas will have no C-Band coverage in 2022 because the phased relocation schedule for C-Band incumbents prevents AT&T from deploying that spectrum in those areas until year-end 2023. In particular, even in geographic areas where AT&T holds a license to operate in the C-Band in 2022, deployment across the country cannot occur overnight. C-Band site deployments will occur throughout 2022 and 2023. Until AT&T deploys C-Band operations in an area, its 5G coverage will need to rely on 850 MHz spectrum for both uplink and downlink transmissions.
4. Second, and equally important, AT&T will need to rely on its 850 MHz spectrum to provide 5G service even to the many users within the downlink coverage area of a C-Band

transmission tower. In particular, AT&T cannot use the C-Band for 5G downlink transmissions unless it can provide an adequate 5G uplink signal for the same transmissions. Because handset antennas transmit at much lower power levels than cell site antennas do, there will be many geographic areas even after full C-band deployment where AT&T can use the C Band for 5G downlink signals only if AT&T can provide a 5G uplink signal with sufficient capacity using more than the currently allocated five megahertz of farther-propagating 850 MHz spectrum.

5. For these reasons, AT&T will need to continue relying heavily and increasingly on 850 MHz spectrum to support 5G communications. AT&T thus plans to double its allocation of 850 MHz spectrum to 5G by sunseting its 3G network in February 2022 and repurposing the ten megahertz of spectrum currently devoted to 3G devices. The additional network capacity provided by this ten megahertz of spectrum will help AT&T meet 2022 expected network traffic demands by, among other things, carrying more traffic over the increased 5G allocation of 850 MHz spectrum and providing an adequate uplink signal to support the increased C-Band downlink coverage, and related capacity, at the cell edge.

6. Delaying that step, as AICC proposes, would undermine those efforts. To begin with, the delay would result in grossly inefficient use of both the ten megahertz of 850 MHz spectrum still dedicated to 3G, which would be operating at only 4% of capacity, and the C-Band, which would operate with diminished downlink coverage given the absence of adequate 850 MHz 5G uplink capacity. Still worse, the proposed delay would cause an increased rate of busy-hour “blocking” in cell sectors across virtually all geographic markets and for both the 4G/LTE and 5G networks, as discussed below

7. In its reply comments, AICC purports to have conducted its own “review” of AT&T’s traffic forecasts and network needs, and it concludes that “AT&T can delay its 3G

sunset for ten months without any substantial negative impact on its customers' experience, and without any risk to their ability to summon help in the event of an emergency.” AICC Reply Comments 41-42. That conclusion is incorrect. AICC lacks facts to support its assumptions and fundamentally misunderstands AT&T's network and basic engineering realities.

8. AICC asserts that 5G networks do not “operate as islands” and that, once growing traffic overwhelms AT&T's existing 5x5 channel of 5G 850 MHz spectrum, the traffic will “default to LTE” on one of AT&T's other spectrum bands. Response 43-44. AT&T does indeed ensure that its 5G and 4G/LTE radio networks complement one another seamlessly. But *both* of those networks will face major capacity challenges in 2022 if AICC's petition is granted.

9. In particular, escalating traffic demands from retail and wholesale customers will place increasingly severe strains on AT&T's *4G/LTE* network in 2022. To handle that influx, AT&T must promptly offload more and more of its traffic onto its *5G* network, which—when equipped with adequate spectrum resources—will be substantially more efficient than the *4G/LTE* network and orders of magnitude more efficient than today's grossly underutilized *3G* network. As noted above, AT&T will need to rely on all of its 850 MHz spectrum for that *4G-to-5G* migration in the many areas where *C-Band* coverage is not available at all and to make use of *C-Band* downlink coverage in areas beyond the reach of *C-Band* uplink signals.

10. In short, AT&T's success in relieving the pressure on its *4G/LTE* network will depend critically on how much 850 MHz spectrum is available for *5G*. AT&T cannot succeed in that task if half of its 850 MHz spectrum remains captive past February 2022 to carry the relatively little remaining *3G* traffic. In that scenario, expected traffic demands would swamp both the *4G/LTE* and the *5G* network in increasing numbers of places and times.

11. For similar reasons, AICC is also mistaken in asserting that AT&T's 5G network is "analogous to a new highway, with no on-ramps." AICC theorizes that "only twelve percent" of AT&T customers will have 5G-capable devices in 2022 (Reply Comments 44) and that 5G enabled devices will increase by only four percent during the proposed 10-month 3G extension period (V-Comm Declaration ¶ 6).¹ As an initial matter, AICC's 5G device-adoption predictions are significantly understated. AT&T's current 5G handset penetration rate exceeds AICC's assumed twelve percent figure by multiple percentage points. It is expected to double from that current number by mid-2022, with an incremental penetration-rate increase during the proposed 10-month 3G extension period that is multiples of the four percent estimated in the V-Comm Declaration. And this increased number of 5G customers will account for a disproportionately large share of network usage, which is forecasted to require substantially more spectrum capacity.

12. In any event, AICC's "new highway" analogy would be misplaced even if AICC's twelve percent 5G device projection were accurate. As stated above, AT&T's 5G and 4G/LTE radio networks work together. In areas with no or incomplete C-Band coverage, AT&T's 5G network coverage will rely solely on its 850 MHz spectrum in one or both directions to relieve pressure on the 4G/LTE network. Once the 5G network overloads, 5G traffic will need to roll back over to, and thus increase traffic on, the already capacity-strained 4G/LTE network. Additional spectrum capacity for AT&T's 5G network to meet anticipated demand is thus needed to protect the 4G/LTE network from congestion. Simply put, insufficient spectrum to serve the 5G network will inevitably lead to blocking on the 4G/LTE network as well. Again,

¹ AICC appears to mistakenly translate V-Comm's estimate of four percent 5G device growth during the proposed 10-month 3G extension period into the unsupported four percent estimate of 5G device use during that period. Reply Comments 43. Neither is accurate.


AT&T can successfully implement its spectrum plan only if and when it deploys a full 20 megahertz of 850 MHz spectrum to 5G because the existing 5x5 channels would be inadequate to accommodate projected traffic demands. That would be true even if, as AICC claims, only twelve percent of AT&T's customer base had 5G-capable devices; it will be all the more true given the substantially greater percentage of customers that will have such devices in 2022.

13. There is likewise no merit to AICC's assertion that AT&T's "unique advantage of access to the taxpayer funded FirstNet 700 MHz LTE network ... ensur[es] that AT&T 5G customers will seamlessly migrate to LTE coverage if there are any 5G signal issues." Reply Comments 44. To begin with, AT&T is developing this first-responder network in accordance with FirstNet's detailed requirements, and AT&T may use FirstNet's spectrum for commercial purposes only so long as it gives total priority to public-safety communications. Moreover, AT&T has already considered this spectrum in its network projections and plans. The question here is not which spectrum assets are in AT&T's overall spectrum portfolio, but whether that overall portfolio will be sufficient to support projected bandwidth needs after February 2022 if the company must continue to devote half of its 850 MHz spectrum to obsolete 3G devices. The answer is no, for the reasons given.

I declare under penalty of perjury that the foregoing is true and correct.

Dated: October 26, 2021

Dallas, Texas


Kevin Hetrick 10/26/2021