

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Promoting Interoperability in the 700 MHz Commercial Spectrum)	WT Docket No. 12-69
)	
Interoperability of Mobile User Equipment Across Paired Commercial Spectrum Blocks in the 700 MHz Band)	RM-11592 (terminated)
)	
)	

REPLY COMMENTS OF RCA – THE COMPETITIVE CARRIERS ASSOCIATION

Steven K. Berry
Rebecca Murphy Thompson
RCA – The Competitive Carriers Association
805 15th St. NW, Suite 401
Washington, DC 20005
(202) 449-9866

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The opening comments reflect widespread support for Commission action to ensure interoperability across the Lower 700 MHz band. The record establishes that the tremendous potential of this block of spectrum has been substantially impeded through its unprecedented division into non-interoperable bands. AT&T’s growing dominance in the industry and its manipulation of the standards-setting process has allowed it to command the latest technologies for its Band 17 operations, leaving smaller carriers that hold Lower A Block licenses unable to acquire devices at reasonable prices and unable to build an economic case to expand their networks. The result is that smaller carriers holding Lower 700 MHz licenses face tremendous barriers to building out 4G networks and providing improved services to their customers. Interoperability in the Lower 700 MHz band would change this dynamic by encouraging the development of new broadband technologies, reducing costs for carriers and their customers, and facilitating the deployment of a truly seamless nationwide mobile broadband network.

Not surprisingly, AT&T is the only wireless carrier that opposes Commission involvement in the development of interoperability in the Lower 700 MHz band. But AT&T’s

economic incentive is to cement or increase its market power by preserving its advantage in the Lower 700 MHz band, which is very different from the Commission's mandate to promote the public interest. AT&T and certain device manufacturers would prefer to see an industry-driven solution rather than a regulatory mandate, and, as RCA explained in its opening comments, RCA and its members likewise want to rely on industry expertise. The problem is that industry, left entirely to its own devices, has failed for years to achieve interoperability and its inertia has only exacerbated the competitive problem. It is now clear that the Commission must step in to protect the public interest. But the Commission can harness industry expertise and bring together various stakeholders by setting a date certain for interoperability and then convening an industry advisory committee—with Commission participation and oversight—to help resolve the technical challenges necessary to make interoperability a reality. The record strongly supports such an approach.

I. THE RECORD ESTABLISHES THAT IMPLEMENTING AN INTEROPERABILITY MANDATE IS STRONGLY IN THE PUBLIC INTEREST

The record in this proceeding confirms that the competitive wireless industry is united in its call for an interoperability mandate.¹ Competitive wireless carriers make clear that they will continue to face substantial obstacles to building out their 700 MHz spectrum holdings, and will face limitations on their ability to provide improved service to their customers, so long as the Lower 700 MHz band remains balkanized. While many carriers agree that the best solutions are those that are the result of industry consensus, the industry standards-setting process has been

¹ See Blooston Rural Carriers Comments; Cavalier Wireless, LLC and Continuum 700 LLC Comments; Cellular South, Inc. Comments; Cricket Communications, Inc. Comments; Horry Telephone Cooperative, Inc. Comments; King Street Wireless, L.P. Comments; MetroPCS Communications, Inc. Comments; NTCH, Inc. Comments; T-Mobile USA, Inc. Comments; United States Cellular Corporation Comments; Vulcan Wireless, LLC Comments.

subverted, leading to outcomes that are “unjustly discriminatory and anti-competitive.”² Indeed, despite having spent \$2 billion to acquire spectrum in the Lower 700 MHz band, competitive carriers have been unable to obtain the latest technologies to deploy in the 700 MHz A Block. Without high-quality, affordable mobile devices, smaller carriers “are not assured of a return on their investment, and will not invest the substantial resources necessary to deploy the 700 MHz A Block.”³ In light of these challenges, an interoperability mandate is necessary to “encourage broadband deployment, permit carriers and customers to enjoy the benefits of economies of scale, and enable scarce spectrum resources in the 700 MHz band to be put to their highest and best use.”⁴

Interoperability also is critical to achieving roaming arrangements that will ensure seamless nationwide wireless coverage. AT&T has chosen to pursue exclusionary practices that impede roaming in the Lower 700 MHz band. As U.S. Cellular notes, “the Commission should not permit [AT&T] to evade the spirit of the roaming mandates by engaging in restrictive device practices.”⁵ And the lack of roaming affects more than just Band 12 carriers. For example, T-Mobile, which does not hold any 700 MHz spectrum, hopes to design its 4G LTE network to allow its customers to roam onto the 700 MHz band, and likewise to support roaming from 700 MHz customers.⁶ Without interoperability, T-Mobile’s customers would likely be denied roaming on one of the two segregated 700 MHz band classes, further splicing the wireless ecosystem into technological fiefdoms. Furthermore, “a lack of interoperability will limit the

² Cellular South, Inc. Comments at 7.

³ MetroPCS Communications, Inc. Comments at 9.

⁴ *Id.* at 1.

⁵ United States Cellular Corporation Comments at 17.

⁶ T-Mobile USA, Inc. Comments at 4.

number of carriers with which public safety entities can enter into roaming, usage, and lease agreements, which in turn will impede first responders' ability to respond to emergencies by limiting the number of commercial systems onto which they can roam.”⁷

Unsurprisingly, AT&T—alone among wireless carriers—opposes interoperability within the Lower 700 MHz band. AT&T has obvious incentives to protect its dominant position from greater competition, and has therefore “built a walled garden around its 700 MHz B Block spectrum, by supporting a boutique band class.”⁸ AT&T goes so far as to argue that competitive carriers do not need interoperability to compete, citing the limited availability of LTE devices from one Band 12 carrier,⁹ and projecting future access to “many LTE roaming options.”¹⁰ But AT&T substantially understates the competitive disadvantage under which competitive carriers operate. That only one competitive carrier has been able to offer 700 MHz devices (and only a handful at that) is evidence of a problem, not the lack of a problem, especially in light of the fact that AT&T alone offers 30 different 4G handsets.¹¹ And any access to future LTE roaming in the Lower 700 MHz band at this point is controlled by AT&T—hardly a reassuring proposition for competitive carriers or their customers. At best, AT&T’s arguments show only that the progress of competitive carriers in 700 MHz deployment is being measured in inches and feet, while AT&T zooms miles ahead and is gaining speed. That is not an outcome that favors the public interest.

⁷ *Id.* at 11.

⁸ MetroPCS Communications, Inc. Comments at 6.

⁹ AT&T Services, Inc. Comments at 11.

¹⁰ *Id.* at 4.

¹¹ AT&T Web Site, <http://www.att.com/shop/wireless/devices/smartphones.html> (visited July 6, 2012).

Above all, the comments establish that interoperability in the Lower 700 MHz band is a critical public interest issue.¹² The public can expect to receive the greatest benefit from the 700 MHz band if interoperability is guaranteed. An interoperability mandate would ensure that the latest services and technologies are economical from a variety of carriers, give customers a range of options from which to select the best new devices on the market, and allow for the nationwide coverage that customers have come to expect. Anything less than full interoperability would sacrifice the potential of the Lower 700 MHz band, leaving only AT&T to exploit its growing market power. For these reasons, the record confirms that the Commission must step in to make interoperability a reality.

II. THE COMMISSION CAN HARNESS INDUSTRY EXPERTISE WHILE PROVIDING A CRUCIAL REGULATORY BACKSTOP TO CORRECT THE MARKET DISTORTIONS CAUSED BY AT&T

AT&T and certain device manufacturers, the principal opponents of an interoperability mandate, argue that the Commission should remain on the sidelines and allow the industry to reach its own solution (or not). But that argument fails to grapple with the major problems that have hindered the development of the 700 MHz band and have prevented consumers from enjoying improved wireless services. The industry acting alone has failed to achieve interoperability. At one time, RCA also preferred an industry solution. RCA and its members invested significant effort to develop an industry solution and found this is not possible. The Commission therefore must act to promote the public interest, but it can and should continue to leverage industry expertise through the use of an advisory committee.

¹² See, e.g., Horry Telephone Cooperative, Inc. Comments at 7; Public Knowledge, New America Foundation and Free Press Comments at 2; Rural Telecommunications Group Comments at 6–10; T-Mobile USA, Inc. Comments at 11

A. The Status Quo Has Failed to Achieve Interoperability and Therefore the Public Interest Requires the Commission to Take Action

The opponents of an interoperability mandate argue in favor of maintaining the status quo, *i.e.*, they are in favor of the industry working on its own to try to achieve interoperability. However, it has become abundantly clear that the status quo is causing significant competitive harms. The industry, left to its own devices, has not achieved an interoperability solution despite years of efforts, primarily because of market imbalances that have thwarted a sensible and pro-competitive solution. Today, AT&T is a dominant carrier that has had the ability and incentive to manipulate the standards-setting process and has pushed individual priorities that are starkly different from those of smaller competitors and the public interest. As Cavalier Wireless, LLC and Continuum 700 LLC note, “vendors have logically devoted primary effort to addressing the needs of larger carriers (such as AT&T, the principal proponent of Band Class 17) and have largely ignored those of smaller carriers.”¹³ In the absence of interoperability, smaller carriers not only are forced to compete using less advanced devices, but also must obtain disproportionately expensive devices. As Cricket Communications highlighted in its comments, this dynamic “will disproportionately impact lower income consumers.”¹⁴ The Commission should not allow a critical public interest issue to be resolved by the industry alone when the record evidence shows that the industry-driven efforts have failed to serve the interests of consumers and competition.

AT&T argues that it “should not be the only carrier in the industry forced to postpone improvements to its LTE network merely to provide a dubious benefit to its A Block

¹³ Cavalier Wireless, LLC and Continuum 700 LLC Comments at 6.

¹⁴ Cricket Communications, Inc. Comments at 8.

competitors,”¹⁵ apparently without recognizing the irony of its position. AT&T has gained a significant advantage in LTE deployment over smaller competitors precisely by engaging in anticompetitive conduct that has thwarted interoperability, and yet it now complains that restoring some measure of competition would uniquely harm its ability to continue wielding that unfair advantage. Bedrock market-based principles indicate that the public interest is best served by precisely the opposite policy—eliminating structural impediments to competition and allowing smaller carriers to compete effectively against AT&T will be good for consumers. The Commission’s reform efforts of course should promote the public interest, not AT&T’s self-interest.

Certain device manufacturers similarly argue for the status quo because they oppose any regulation that might impact them.¹⁶ But these manufacturers are not in position to understand the harms that the lack of interoperability are creating to competition among wireless providers. The wireless industry already faces enormous challenges flowing from the tremendous increase in concentration in recent years. Fixing the lack of interoperability in the Lower 700 MHz band is a critical step to turn the tide. The Commission and wireless carriers should work with device manufacturers to achieve a viable solution, but the manufacturers cannot credibly argue that Commission action is unnecessary.

Indeed, some of the manufacturers’ arguments against regulation are plainly self-serving. Qualcomm argues that Commission should take a laissez-faire approach and allow Qualcomm to lead the charge in developing solutions to the interoperability problem on its own.¹⁷ But that self-interested proposal ignores the fact that interoperability is a critical *public interest* issue, and

¹⁵ AT&T Services, Inc. Comments at 25.

¹⁶ See Qualcomm, Inc. Comments at 6, Research in Motion Corp. Comments at 3.

¹⁷ See, e.g., Qualcomm, Inc. Comments at 51.

all stakeholders should come together to achieve a solution. RCA welcomes Qualcomm's participation, but the Commission cannot cede its public policy goals to one company, particularly a company with a decided financial interest and incentive in promoting its own version of interoperability. Further, the Commission has no assurance that Qualcomm will be any more likely to reach an industry solution. Qualcomm has known about the interoperability problem and the harms it creates for some time through participation in the industry standards setting process. In fact, Qualcomm may have contributed to the creation of Band Class 17 which caused the lack of interoperability in the Lower 700 MHz band.¹⁸

Finally, several carriers have submitted studies that have persuasively demonstrated that any claims of potential interference are significantly overstated.¹⁹ At a minimum, these studies make clear that solutions to any interference concerns should be far more easily attainable than AT&T suggests, and they lend support to the view that AT&T has stymied the achievement of interoperability. Some commenters disagree with the implications of these studies, but any disagreement only strengthens the case for Commission involvement. To the extent that there are differing views on the severity and potential resolution of interference concerns, that only underscores the need for the expert agency to conduct its own independent tests and bring its expertise to bear.

As RCA noted in its comments, the Commission should ensure that the established advisory committee is tasked with resolving only legitimate technical issues, so that the

¹⁸ See Complaint, *Corr Wireless Communications LLC, et al., v. AT&T, Inc., et al.*, No. 3:12-cv-0036, Dkt. No. 1, ¶¶ 9-12 (N.D. Miss. filed April 2, 2012).

¹⁹ See Notice of *Ex Parte* Presentation by Cavalier Wireless, LLC; C Spire Wireless; Continuum 700, LLC; King Street Wireless, L.P.; MetroPCS Communications, Inc.; U.S. Cellular; and Vulcan Wireless, WT Docket No. 12-69 (filed May 29, 2012); see also Vulcan Wireless Comments at 11; Cellular South Comments at 12; King Street Wireless Comments at 16; U.S. Cellular Comments at 7.

committee's mandate does not become derailed by claims of interference that lack any basis in fact.²⁰ The most recent study filed in this proceeding confirms that AT&T's claims of interference from Channel 51 broadcasters on Blocks B and C are untrue.²¹ In its reply comments, V-COMM states that "there is no meaningful performance differential between Band 12 and Band 17 devices that can reasonably be expected to result in Harmful Interference. The use of Band 12 devices should not impact B, or C, or B + C operators in any practical way."²² V-COMM concludes that, "there is no reason, based upon empirical data, to select Band 17 operations over Band 12 operations."²³ By comparing Band Class 17 operations with actual Band Class 12 devices that were not available at the time that the earlier tests were performed, the V-COMM study corroborates the results of the Atlanta study.²⁴ The V-COMM study confirms that there will be "no meaningful additional interference when using a Band 12 as compared to a Band 17 configuration."²⁵

To the extent that other issues remain regarding the efficient use of the Lower 700 MHz A Block, the wireless industry should continue to work to resolve real technical challenges separate from this proceeding. AT&T has argued that "a Band 12 mandate would fall short of

²⁰ See RCA Comments at 18.

²¹ See Reply Comments of V-COMM, L.L.C., WT Docket No. 12-69 (filed July 13, 2012).

²² *Id.* at 1.

²³ *Id.*

²⁴ See Doug Hyslop and Paul Kolodzy, *Lower 700 MHz Test Report, Laboratory Field Testing of LTE Performance near Lower E Block and Channel 51 Broadcast Stations*, April 11, 2012, attached to *Ex Parte* Letter from Cavalier Wireless, LLC, et al. to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 12-69 (filed May 29, 2012).

²⁵ V-COMM Reply Comments at 1.

solving the real challenges crippling the A block,”²⁶ referencing other issues such as the Channel 51 exclusion zones. But absent a Band 12 interoperability mandate, efficient, nationwide use of the Lower 700 MHz A Block will remain near-impossible. While some markets are impacted by the mandated exclusion zones, Channel 51 does not impact AT&T’s operations in those markets, nor does it impact the ability to efficiently use an interoperable Lower 700 MHz band outside of those markets. A Band 12 mandate may not resolve all the challenges experienced by Lower 700 MHz A Block licensees, but interoperability is the first necessary step. The Commission should not delay action on solving interoperability based on a red herring or misleading claims.

B. The Commission Can Harness Industry Expertise While Providing Needed Oversight

The opponents of Commission action portray the policy choices as binary – either an unfettered industry left completely to its own devices, on the one hand, or a rigid top-down regulatory scheme, on the other. But there is no reason to view the policy choices so starkly, for an industry-driven solution and Commission supervision are not mutually exclusive.

It is important for the industry to work together and leverage its technical expertise to find solutions for achieving interoperability, but there must be sufficient Commission involvement and oversight to correct the marketplace distortions that currently exist. For these reasons, RCA has proposed a solution that will harness the experience and technical expertise of industry with the protection of Commission involvement and review. As RCA discussed in its opening comments, the Commission should convene an industry committee similar to the North American Numbering Council (“NANC”). An industry committee with membership comprising a broad cross-section of the industry, including both wireless carriers and device manufacturers,

²⁶ *Ex Parte* Letter from Joan Marsh, AT&T, to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 12-69, et al., (filed June 25, 2012).

can have an important role in crafting the technical standards necessary to achieve interoperability. The committee must, however, have sufficient involvement and oversight by the Commission to correct the market imbalances that characterize the current state of affairs. Commission involvement and oversight also will ensure that the committee reaches timely resolution of its task, as AT&T and others may have their own self-interested reasons to delay the development and implementation of interoperability solutions.

The Commission therefore should set a firm date for compliance with an interoperability obligation, but also should establish an industry advisory committee and should appoint personnel to participate in the advisory committee. The Commission also should retain the authority to alter committee recommendations if necessary to promote the public interest.

III. THE COMMISSION HAS THE LEGAL AUTHORITY TO IMPLEMENT AN INTEROPERABILITY MANDATE

There is widespread agreement among commenters that the Commission has the legal authority to implement rules to achieve interoperability.²⁷ As RCA explained in its opening comments, Title III provides the Commission with clear legal authority to ensure seamless interoperability in the Lower 700 MHz band.²⁸ Title III gives the Commission authority to implement conditions on licensees,²⁹ as well as authority to manage and resolve concerns of potential interference from base stations and devices.³⁰

²⁷ See, e.g., Cricket Communications, Inc. Comments at 3–6; T-Mobile USA, Inc. Comments at 22-24; NTCH, Inc. Comments at 2; Horry Telephone Cooperative, Inc. Comments at 7; Cellular South, Inc. Comments at 7.

²⁸ As fully described in RCA’s Comments, the FCC has the authority under sections 301, 303(b), 303(r), 309 and 316 of the Communications Act. See RCA Comments at 8-9.

²⁹ See 47 U.S.C. §§ 301, 303(b), 303(r), 309, 316.

³⁰ See 47 U.S.C. §§ 303(f), 302a.

Even AT&T acknowledges that the Commission has broad legal authority to take regulatory steps to resolve the lack of interoperability.³¹ AT&T contends, however, that implementing an interoperability mandate “would radically change the terms of an auction after the fact.”³² That is not accurate. First, seamless interoperability is the norm with respect to wireless spectrum, not the exception. Auction participants all expected interoperability in the 700 MHz band. This reasonable expectation was based on comparable spectrum auctions. The Commission would not make radical changes by ensuring interoperability across the Lower 700 MHz band in precisely the same manner that applies in all other wireless spectrum bands that have been the subject of auctions.

Second, with the stringent build out requirements imposed on Auction 73 winners, no auction participant would risk capital to bid on and purchase spectrum without the expectation of an equipment ecosystem providing the ability to promptly deploy.

Third, this argument is ironic in light of the fact that AT&T created Band Class 17 post-auction.³³ As indicated in the Commission’s service rules and band plan available at the time of the auction, the only band separation in the 700 MHz was between the Upper and Lower 700 MHz Bands, with a united 698 MHz – 746 MHz. Taking into account the duplex gap at 716 MHz – 728 MHz, which was auctioned as unpaired spectrum, the FCC created Band Class 12.

³¹ See AT&T Services, Inc. Comments at 37.

³² AT&T Services, Inc. Comments at 38 (quoting *U.S. Airwaves, Inc. v. FCC*, 232 F.3d 227, 235 (D.C. Cir. 2000)).

³³ Cite to Motorola, TS36.101: Lower 700 MHz Band 15 (now Band 17), 3GPP TSG RAN WG4 Meeting #47, RA 081108 (April 5-9, 2008) (“This document is presented as a discussion paper to evaluate the need for a new operating band to support Block B and Block C in the lower 700 MHz band.”).

