

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

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

REPLY COMMENTS OF KING STREET WIRELESS, L.P.

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Pursuant to the Commission’s NPRM in the captioned proceeding,¹ King Street Wireless, L.P. (“King Street”) hereby submits its Reply Comments in this proceeding.

By King Street’s count, approximately 29 parties filed formal comments in this proceeding. While most of the commenting parties agreed with King Street’s positions in this proceeding, a vocal minority – including principally AT&T and its favored vendors – continued to plea for restricted access in the 700 MHz band.

By these reply comments, King Street both debunks certain of the half-truths presented by foes of interoperability, and further responds to inquiries presented by the Commission in the NPRM. By doing so, King Street further demonstrates the need for the Commission to adopt express interoperability requirements.

¹ *Notice of Proposed Rulemaking* in WT Docket No. 12-69, 77 Fed Reg 19575, April 2, 2012 (the “NPRM”).

I. SUMMARY

The Commission has far more than ample authority to impose interoperability obligations, as demonstrated by the NPRM and agreed to by the majority of commenting parties.

Interoperability is critical to competition in the 700 MHz band – the band that is most prevalent for wireless broadband offerings. Without interoperability, roaming will not be possible; customers will not be able to change carriers easily; customers of carriers other than AT&T and Verizon will have limited equipment choices and higher equipment costs; and public safety users will be limited in their opportunity to roam. In short, 700 MHz would be vastly underutilized by the American public without interoperability.

There are no genuine technical impediments to interoperability. The only two detailed studies submitted to date in this proceeding both confirm this conclusion.

And now it has become unquestionably clear that there will be no voluntary industry agreement on interconnection. The two largest carriers have simply too many economic and competitive benefits resulting from this lack of interoperability to encourage them to agree with the smaller carriers on interconnection.

Interoperability needs to be mandated this year, and implemented fully in calendar year 2013.

II. DISCUSSION

A. The Commission Has the Authority to Require Interoperability

King Street agrees fully with the authority arguments included in the Notice of Proposed Rulemaking in the captioned proceeding (“NPRM”) itself, and with the arguments of the preponderance of the parties addressing this issue, which also supported the Commission’s position. (See, e.g. generally the Comments of King Street, at 18; Continuum and Cavalier, at

16-18; and RCA – the Competitive Carriers Association (“RCA”), at 6.) Review of pertinent comments presented to date serves only to reinforce King Street’s position that there can be no legitimate question regarding the Commission’s authority to impose interoperability.

A handful of commenting parties attack the Commission’s authority to require interoperability. Not surprisingly, AT&T is at the top of the list. It argues that imposition of any interoperability obligation would be an unlawful retroactive license modification. AT&T Comments at 38-40. CLIP generally agreed with AT&T and professed to favor a market-based approach technology selection. CLIP Comments, at 3. And RIM argues simply that each of the several sources of authority cited by the Commission in the NPRM does not support the inclusion of an interoperability obligation. RIM Comments, at 15-20.

In contrast to the above commenters, Cellular South, Inc. (“Cell South”) explained that not only does the Commission have the authority to require interoperability, it has previously exercised it in wireless, at the advent of cellular. Cell South Comments, at 2-3. Cell South further pointed out that the Commission had properly acted in a similar fashion in a host of other proceedings, including (a) prohibiting exclusive arrangements for MTE owners and (b) prohibiting exclusive contracts for cable providers in no Multiple Dwelling Units. Cell South Comments, at 2-4. Cricket also supported the Commission’s authority on this issue, noting that Title III grants the Commission authority to impose an interoperability mandate. Cricket Comments, at 4-6. RCA explained that Section 303 specifically permits the Commission to impose this type of obligation upon carriers. RCA Comments, at 7-9. T-Mobile explained that Commission authority is granted in Section 301, 303(b), 303(e), 302(a) and 303(f) of the Act. T-Mobile Comments, at 22-23. King Street supports those who recognize the Commission’s authority, and observes that interoperability is not unlike the many other technical provisions that routinely arise and impact upon already-licensed entities.

Those who oppose interoperability on the grounds of retroactivity concerns misunderstand two key issues. First, while the Commission has not to date imposed interoperability obligations in the 700 MHz band (it has, of course, done so in other bands – see King Street Comments, at 2, and Cell South Comments, at 2), neither has it ever determined that interoperability was not necessary for competitive and public interest benefits, or suggested that interoperability should not be required. Rather, the Commission has merely been silent on the issue. Such silence could be reasonably inferred to reflect only that industry conduct up until Auction No. 73 demonstrated only that there was no need to affirmatively mandate what was already transpiring. That made perfect sense for 700 MHz prior to Auction No. 73. After all, until that time, after the Commission set its regulatory framework in cellular, interoperability was present in all technologically sophisticated wireless systems. See King Street Comments, at 3; NPRM, at para. 1, where these uncontested truths were observed.

The development of cellular is particularly instructive on this matter. In 1984, when cellular was first being offered in medium sized markets, the Commission wrestled with the issue of whether cellular should be licensed by lottery or comparative hearings. There, the Commission made an affirmative determination that licensing cellular by comparative hearings would best serve the public interest. *Report and Order* in General Docket No. 81-768, 89 FCC Rcd 257 (1982). Subsequently, based upon a determination that the licensing process had gone awry, and that the public interest was not being served by comparative hearings, the Commission changed course and elected to license by lottery. *Amendment of the Commission's Rules to Allow for Selection Using Random Selection*, 98 FCC Rcd 175 (1984).

This change of policy was applied even to those applications that had been filed in the era where licensing by comparative hearing was the governing rule. This included applications filed after the Commission explained that all selections would be by comparative hearing, and not by

lottery. Significantly, but not surprisingly, when that change in direction was challenged, the reviewing court held that even retroactive application of new rules was permissible, as necessary to serve the public interest. *Maxcell Telecom Plus, Inc. v. Federal Communications Commission*, 815 F.2d 1551 (D.C. Cir. 1987). In so noting, the D.C. Circuit properly cited with approval *SEC v. Chenery Corp.*, 332 U.S. 194, 203 (1947) for the proposition that “retroactive enforcement of a rule is improper only if the “ill effect of retroactive application” of the rule outweighs the ‘mischief’ of frustrating the interest the rule promotes.” Here, the public interest benefits of interoperability (see Section 1.B. *infra*), far outweigh any potential harm raised by retroactive application of an interoperability mandate.

In sum, the Commission’s citations of authority in the NPRM fully support its application of interoperability in this proceeding. Moreover, application here would not constitute any reversal of direction. Rather, it would only clarify that the same fundamental pro-competition formal pronouncements in support of interoperability made in the context of cellular and PCS are equally applicable here. And if application here were deemed to be retroactive, such retroactively is fully sustainable in this instance.

B. The Commission Has an Obligation to Require Interoperability in the 700 MHz Band

At the heart of this proceeding is a claim that interoperability is needed in order to permit some semblance of competition in the 700 MHz band, and specifically that without interoperability 700 MHz Band A would become a “ghost” band, that would have precious little utility, serve few customers, and generally not fully serve the public good. No one in the proceeding has seriously contested this description. Nor could they do so in good faith, or even with a straight face. The sheer numbers – 80% of 700 MHz spectrum in the hands of two carriers – simply would not permit it. See King Street Comments, at 6-7.

The best that interoperability opponents could offer on this point was to argue that even interoperability could not permit roaming, and that even without interoperability, there could be some competition. Towards this end, AT&T essentially, and arrogantly, proclaimed that “we still are not going to let you roam with us.” AT&T Comments, at 16. AT&T did so by concocting an unsupported argument that because AT&T’s LTE operations have a GSM-based design, others that employ a CDMA-based design could not roam over AT&T’s system. The problem with that theory is that King Street, who employs (together with its partner USCC) a Band 12 CDMA-based LTE system, understands that roaming is absolutely possible.

CLIP employed another misleading tactic. It asserted that competition is alive and will, despite lack of interoperability, because of statements by USCC and Cell South about their LTE offerings. Yet, when one examines closely what is actually happening with those carriers, a very different reality emerges. Cell South, while appropriately planning to commence service, has not actually done so – apparently in large part due to lack of interoperability. And while King Street/USCC has only recently begun to offer LTE service over Band 12, that activity cannot be fairly interpreted as lending any support to the proposition that interoperability is not critical for meaningful competition. In this regard, it should not go unnoticed that both King Street/USCC and Cell South have substantial legacy customer bases, and that no meaningful carriers without such customer bases are operating in the 700 MHz band. In order to maintain and protect their existing customer bases and minimize churn, LTE offerings are essential for King Street/USCC and Cell South. While King Street/USCC’s offerings (and presumably Cell South’s when available) provide high quality service and value for customers, it does so while at a significant competitive disadvantage. King Street/U.S. Cellular has to overcome the disadvantage of not being able to offer roaming; offering less equipment selection; and paying more for equipment that does become available. And Band 12 equipment is currently available only through one

vendor, which vendor is currently subject to distribution limitations stemming from a legal patent challenge.

In contrast to the small band of interoperability opponents, the vast majority of commenting parties explained why there is a current and urgent need for interoperability.

Comments in support are too numerous to recount exhaustively, but they include following – all of which King Street supports:

- (a) interoperability is essential for rural carriers to have any opportunity to compete – Blooston Comments, at 8;
- (b) interoperability is critical to breaking the merging duopoly-style dominance of the two largest carriers – Cell South Comments, at 4-5;
- (c) interoperability is essential to customers who want to change carriers without incurring the added costs of changing handsets too – Public Interest Consumers (“PIC”) Comments, at 5, 7-9;
- (d) lack of interoperability will result in higher prices for consumers due to lack of economies of scale – Cricket Comments, at 7-8;
- (e) interoperability is key to public safety groups being able to roam on 700 MHz band facilities, especially in areas with few systems –Edison Electric Institute Comments, at 3;
- (f) lack of interoperability has had the effect of several carriers not being able to offer LTE to date, and possibly having to apply for a waiver of interim build out obligations – Horry Telephone Cooperative, Inc. Comments, at 3, n.11;
- (g) that small and rural carriers may well not have an ability to obtain HG LTE smart phones in the absence of interoperability – Metro PCS Comments, at n.9;
- (h) without interoperability, roaming will simply be impossible – NTCH Comments, at 2; and
- (i) interoperability is essential to achievement of the President’s goal of broadband coverage for 98% of Americans – RCA Comments, at 11.

King Street concurs with all of the above comments in support of interoperability and submits that the need for interoperability is overwhelming and not susceptible to serious dispute.

C. **There are No Bona Fide Technical Reasons Not to Implement Interoperability**

As the Commission recognized in its NPRM, at the core of this proceeding is the question of whether there are technical problems associated with interconnection that are not susceptible to cure by reasonable mitigation techniques. NPRM, at para. 1. This is uniquely the type of question that is properly resolved only through a data-driven analysis. At the close of the comment period, only one group of parties had presented meaningful data upon which a determination as contemplated by the NPRM could be made.² The Atlanta Study demonstrated convincingly that there are no technical issues that should preclude interoperability. Numerous commenting parties cited with approval to the Atlanta Study. The only meaningful (albeit vastly embellished) criticism of the study was that it did not employ actual Band 12 devices (because none were then available) and instead relied on certain extrapolation theories. See AT&T Comments, at 35. King Street submits that the Atlanta study provided sound, well developed analysis in reaching its conclusions that there are no genuine technical impediments to interoperability. Nevertheless, to remove potential controversy, King Street, together with several other 700 MHz licensees, commissioned a second independent study to address this issue. The second study, conducted by V-COMM, has already been introduced into the record in this proceeding.³ And it utilized multiple now-existing 700 MHz devices. This second study independently corroborated the findings of the Atlanta Study, and includes the following findings:

- There is no meaningful performance differential between Band 12 and Band 17 devices that can reasonably be expected to result in harmful interference.

² *Lower 700 MHz Test Report; Laboratory and Field Testing of LTE Performance Near Lower E Block and Channel 51 Broadcast Stations*, conducted by Wireless Strategies and Paul Kolodzy, submitted in this proceeding on May 29, 2012.

³ See *Reply Comments of V-COMM Engineering*, submitted into this docket on July 13, 2012.

- The use of Band 12 devices should not impact Band B/C operators in any practical way.
- The V-COMM Channel 51 case studies revealed the potential for harmful interference due to Band 12 vs Band 17 operation is effectively non-existent.
- Channel 56 E-Block laboratory results (laboratory testing only, due to the fact that there are no high power Channel 56 E Block deployments at this time) demonstrate that mitigation of any potential interference can be easily achieved and is certainly possible.

D. The Commission Should Act to Reduce the Impact of Channel 51 on Lower Band 700 MHz Operations, But Such Action is Not Essential for Interoperability

One of the few issues that virtually all commenting parties agreed upon is that Commission action to remove high power Channel 51 operations from adjacency to the Lower Band 700 MHz allocation would inure to the public benefit. See, e.g. generally the comments of King Street, Cavalier and Continuum, AT&T, CTIA, Vulcan and Cricket.

It does not follow, however, that a solution to the complications that Channel 51 presents is somehow a pre-requisite to interoperability. The Atlanta Study demonstrated the two issues to be separate; the V-COMM study confirmed it; and countless commenters recognized it (see, e.g. comments of King Street, Cavalier and Continuum, MetroPCS, Cell South and Vulcan). Those that emphasized the need for Commission action on Channel 51 did so only in an effort to drag out the current proceeding, because they recognize that resolution of the Channel 51 situation is not something that could be promptly achieved.

E. Operation of Channel 56 E Block Facilities at High Power Do Not Present Any Reason to Delay Interoperability, But the Commission Should Reduce Power Over This Channel

Channel 56 E Block operations at high power is, similar to high power operation at Channel 51, a “bookend” that complicates operation of Lower Band 700 MHz facilities at lower power levels sufficient to provide mobile broadband. It is a matter over which the Commission

should take action. Yet, like Channel 51, Channel 56 E Block presents no technical bar to interoperability.

Both the Atlanta Study and the V-COMM Study have debunked the claim that the Channel 56 E block situation needs to be resolved prior to interoperability being required. And those who argue differently take their position solely as a means to delay or defeat interoperability. Notably, Qualcomm, which now professes to be concerned about high power operations on that channel, held a very different view when it was licensed on the channel. See, e.g. *Report and Order and Further Notice of Proposed Rulemaking* in WT Docket No. 06-150 (April 27, 2007), at para. 94. There the Commission, in addressing the issue of an impact of high power operation on that channel, observed that Qualcomm states that “there is no evidence to support the reduction in the existing 50 kW ERP transmissions in the Lower Band,” citing to Qualcomm’s Reply Comments in WT Docket No. 06-150, at 3. Given Qualcomm’s 180° change in stance, based upon its licensing situation, its current view should be viewed most skeptically.

AT&T’s professed concerns about non-mitigable interference ring equally hollow. First, it must be appreciated that AT&T holds E block licenses in one-half dozen of the country’s largest markets, having acquired them from Qualcomm. And Qualcomm itself strategically obtained those licenses in Auction No. 73. Its action in so doing was designed to prevent Dish from obtaining a *de facto* national license for the E Block. Without a national license, Dish has not built out any system that could operate at high power. And fundamental economics of any business model makes it much less likely that Dish will ever offer such service. So, at a time when AT&T cries aloud about its fears regarding high power E Block operations, it also effectively holds the keys that can prevent any Dish effort to operate there over high power.

Notwithstanding the above, and as stated earlier, the Commission could improve the interference climate in the Lower Band 700 MHz, were it to address the E Block issue, and King

Street urges it to do so. But it does not follow that interoperability should be deferred until E Block issues are resolved.

F. Voluntary Industry Consensus Cannot Be Reasonably Expected

As King Street explained in its comments in this proceeding, it has long been an advocate of a voluntary industry consensus on this issue. King Street Comments, at 14-16. To that end, King Street has participated in multiple discussions aimed at such resolution. By the time comments were submitted in this proceeding however, it had become clear to King Street that such efforts were futile. King Street then became concerned that the efforts themselves were nothing more than a ruse that was intended by anti-interoperability advocates to delay Commission action in this proceeding.

Review of comments presented by AT&T and its small band of allies, unfortunately demonstrated that to be the case. As a result, the Commission should wait no longer for voluntary industry action, and should instead proceed with a decision in this proceeding.

III. CONCLUSION

As we approach the third anniversary of the filing of the petition that led to the NPRM, and have passed the fourth anniversary of the close of Auction No. 73, it is more clear than ever that interoperability must be required.

Without interoperability: (a) there will be no data roaming over the A Block; (b) independent carriers will not be able to obtain cutting-edge devices at fair and reasonable prices; (c) customers will not be able to exercise their right to change carriers without incurring considerable extra costs with changing equipment; and (d) public safety entities will have fewer roaming options, especially in rural areas where the largest carriers operate last.

On the technical pivotal technical issues, the Commission requested hard data and committed to render a data-driven solution. Truly hard data has come only from two sources: the Atlanta Study and the V-COMM Study. Both studies demonstrate that there are no meaningful technical impediments to interoperability. And most certainly, there are none that are not susceptible to full mitigation.

In view of the above, King Street renews its urging that the Commission adopt interoperability; that it do so this calendar year; and that it require that interoperability be fully implemented in 2013. Only by doing so will there be meaningful competition in the 700 MHz Band, and can consumers reap the benefits of it.

Respectfully submitted,

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