



1300 NORTH 17th STREET, 11th FLOOR
ARLINGTON, VIRGINIA 22209

OFFICE: (703) 812-0400
FAX: (703) 812-0486
www.fhhlaw.com
www.commlawblog.com

DONALD J. EVANS
(703) 812-0430
evans@fhhlaw.com

October 31, 2013

Via ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Reply to Joint Opposition; WT Docket 13-193
REDACTED VERSION – FOR PUBLIC INSPECTION

Dear Ms. Dortch:

Youghioghny Communications, LLC (“YC”), by its undersigned attorney, is submitting the enclosed REDACTED version of its Reply to Joint Opposition for filing in the above-referenced docket. The full unredacted version of YC’s Reply to Joint Opposition is being filed by hand delivery under separate cover. Two copies of the unredacted Reply to Joint Opposition are also being delivered to Brigid Calamis of the Wireless Telecommunications Bureau.

Should you have any questions, please contact the undersigned.

Sincerely,

/s/ Donald J. Evans

Counsel for Youghioghny Communications, LLC

Enclosure

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

In the Matter of)
)
Applications of Cricket License Company, LLC,)
et al., Leap Wireless International, Inc. and) WT Docket No. 13-193
AT&T Inc. for Consent to Transfer Control of)
Authorizations)
)
Application of Cricket License Company, LLC)
and Leap Licenseco Inc. for Consent to)
Assignment of Authorization)

To: Chief, Wireless Telecommunications Bureau

REPLY TO JOINT OPPOSITION

Donald J. Evans
Fletcher, Heald & Hildreth, P.L.C.
1300 N 17th St.
11th Floor
Arlington, VA 22209
703-812-0430

**Attorney for Youghioghenny
Communications, LLC**

October 31, 2013

TABLE OF CONTENTS

SUMMARY..... ii

INTRODUCTION1

A. TRANSACTION PROBLEMS IGNORED BY THE APPLICANTS.....2

 1. The HHI Index.....2

 2. New Paradigm.....3

 3. Cricket is a National Carrier4

B. THE HUAWEI SECURITY ISSUE.....5

C. THE PRE-PAID MARKET IS GROWING AS A COMPETITIVE
ALTERNATIVE TO VERIZON WIRELESS AND AT&T.....7

D. COMPETITIVE SITUATION IN SOUTH TEXAS.....9

E. LOSS OF CRICKET WILL LIMIT ROAMING AVAILABILITY AND
INCREASE ROAMING COSTS11

F. MISCELLANEOUS ISSUES.....12

G. CONCLUSION.....15

ATTACHMENT: IAE Reply Comment

Exhibit A: Reuters Report on Huawei Involvement in Cricket's San Antonio Network Node

Exhibit B: Excerpt from Leap Second Quarter 2013 Quarterly Report

Exhibit C: Article re AT&T Third Quarter 2013 Report

SUMMARY

This Reply by Youghioghenny Communications, LLC (YC) addresses the Joint Opposition filed by the Applicants. It points out that the Applicants failed to address or rebut a number of issues raised by YC and in other instances ignored other evidence.

A. The Applicants fail to address the extreme market share concentration which would be created by this transaction in certain markets, as measured by the HHI. They ignore YC's suggestion that the Commission should adopt a broader analytic approach to merger evaluations, one which takes into account both the effects of serial acquisitions and the public policy in favor of a diverse competitive ecosystem in the wireless marketplace. They also failed to acknowledge or explain away their own repeated characterizations of Leap to the FCC and the SEC as both a national wireless carrier and a force that evokes competitive responses from AT&T, characterizations which they now directly contradict.

B. The Applicants did not adequately address either the security threat posed by the integration of Huawei equipment into their networks or the remedy for that integration.

C. Contrary to the Applicants' claims that the prepaid or advance pay market is not competitive with AT&T, their own evidence shows that the post-paid carriers are responding aggressively to the prepaid threat to their profits, most notably by the kind of "if you can't beat, 'em, buy 'em" maneuver presented here.

D. Contrary to the Applicants' claims, the South Texas market will become dramatically less "vibrant" if this deal is permitted. It will become a duopoly in which the once intense competition on price which benefitted all consumers in this market will disappear.

E. Even if Sprint and Verizon remain as potential roaming partners after this deal is approved, CDMA carriers would be faced with a nationwide duopoly that could and would set roaming rates unreasonably high.

F. Numerous discrete errors and pitfalls in the Applicants' proposal are addressed.

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

In the Matter of)

Applications of Cricket License Company, LLC,)
et al., Leap Wireless International, Inc. and)
AT&T Inc. for Consent to Transfer Control of)
Authorizations)

WT Docket No. 13-193

Application of Cricket License Company, LLC)
and Leap Licenseco Inc. for Consent to)
Assignment of Authorization)

To: Chief, Wireless Telecommunications Bureau

REPLY TO JOINT OPPOSITION

Youghiogheny Communications, LLC (YC) hereby replies to the Joint Opposition filed by AT&T, Inc. and Leap Wireless International, Inc. (jointly, "the Applicants") to YC's Petition to Deny. As will be set forth below, the Applicants' Opposition is more notable for what it glides over than for what it says. Key features of this transaction that pose serious public interest obstacles were simply ignored, while small issues such as minor losses of market share by Leap are targeted for major treatment. To the extent that the Applicants did not bother to address -- or calculatedly decided to ignore -- critical problems with their transaction, those problems should be deemed conceded. In addition, the Applicants have now gone to great lengths to demonstrate that there is significant portability between post-paid and pre-paid customers -- a point they had categorically denied in their initial public interest statement.

Finally, the Applicants repeatedly reference as their guiding light the Commission's approval of T-Mobile's acquisition of MetroPCS. For some reason they equate the merger of

two of the small but scrappy national wireless providers (a merger which attracted very little opposition from any quarter since it clearly *strengthened* two companies that were challenging AT&T and Verizon) with the instant acquisition by the number 2 company of the number 5 company.¹ YC does not oppose the merger of small, scrappy competitors who can then compete better against the majors; this is what it hoped for when Pocket Communications was acquired by Leap. But rather than enhancing competition against a major, the instant transaction kills it.

As amplified by IAE in its attached Reply Comment, the correct precedent to follow in this case is not T-Mobile/MetroPCS but AT&T/T-Mobile², where the Commission, supported by the Department of Justice, recognized that the acquisition of a disruptive national competitor by one of the top two companies would not enhance competition but stifle it. The regulators need to be *strengthening* competition against AT&T and Verizon -- not snuffing out such competition as remains. AT&T made many of the same arguments to support its acquisition of T-Mobile that it is making here, yet when the Commission ultimately put the kibosh on the T-Mobile deal, T-Mobile went on to grow into an even more vigorous competitor than it had been in the past. The same thing will no doubt happen here if AT&T is denied the ability to snuff out a major competitive threat.

A. TRANSACTION PROBLEMS IGNORED BY THE APPLICANTS

1. The HHI Index

YC demonstrated through the report offered by IAE that in the South Texas area most familiar to YC, the HHI index puts the market concentration created by this transaction [BEGIN REDACTED MATERIAL]

¹ Leap would be the sixth largest carrier if Straight Talk, a non-facilities-based carrier, is counted.

² See WT Docket No. 11-65.

[END REDACTED MATERIAL]

The Applicants did not deny, contest or even try to explain away the damning effect of the HHI analysis. Instead, they blithely assert that YC had failed "to present any relevant supporting evidence." They go on to assert that wireless competition in South Texas will be "vibrant." Jt. Opp. at p.33-34. In the recent ATN-ATT transaction⁴, the Commission conducted an HHI analysis of the markets involved and determined that in a number of market clusters the concentration was severe enough to pose an obstacle to the approval of the transaction. This concentration issue is one of the most critical elements of the Commission's (and the Department of Justice's) evaluation of mergers and acquisitions. YC therefore presented plenty of evidence to support its contention of market concentration, including [BEGIN REDACTED MATERIAL]

[END REDACTED MATERIAL] The Applicants' silence on the HHI index in response is deafening.

2. New Paradigm

YC urged the Commission to broaden its review process in evaluating transactions of this kind to consider the overall effect of these acquisitions on the wireless ecosphere rather than evaluating each transaction as though it is an isolated event in a separate silo. Only by stepping

³ See Appendix B of IAE Report in YC's Petition to Deny.

⁴ In the Matter of Applications of AT&T, Inc. and Atlantic TeleNetwork, Inc. for Consent to Transfer Control of and Assign Licenses and Authorizations, DA 13-1940, Memorandum Opinion and Order, rel. Sept. 20, 2013. ("ATN Order")

back to look at the big picture can one see that that a series of medium-sized acquisitions can be -
- and has been -- as harmful to competition as a single major acquisition like the T-Mobile/AT&T deal. The incremental adverse effect on smaller players in the market from the continued approval of these transactions is becoming viability-threatening in the areas of roaming charges and availability, handset availability, predatory pricing, and access to spectrum resources. A narrow focus on the specifics of any particular transaction, including this one, blinds the Commission to the true incremental effects of what has gone before. In addition, the current evaluative process ignores the policy-based benefit of ensuring that smaller, diverse carriers should have a place in the wireless market, a policy judgment that Congress made in specifying the principles that should govern FCC auction design. 47 USC Section 307(j)(9). The attached IAE Reply Comment stresses the need for such diversity from the standpoint of public policy. For obvious reasons, the Applicants ignored the suggestion that the evaluative paradigm should shift because it is that paradigm which has permitted the extreme industry consolidation we see today.

3. Cricket is a National Carrier

YC demonstrated in its Petition that both Leap and AT&T have repeatedly characterized Cricket as a "national" carrier both in their SEC filings and in filing after filing made to the FCC. Without missing a beat, they now insist that Leap is in no way a national carrier. Perhaps concluding that there was no possible way they could, with a straight face, explain away their repeated assertions to the contrary, they simply bluster forward as though none of those assertions were ever made. The Commission should take that silence as a concession and treat Cricket as a national carrier for purposes of its analysis here. What that means is that the elimination of Cricket as an independent player in the national market reduces the number of

national facilities-based actors⁵ to four, and, more to the point, with the absorption of MetroPCS into T-Mobile, there would now be only one "disruptive" (to use Leap's own term) competitive player on the national scene: T-Mobile. It is no wonder that the Applicants have chosen to remain silent.

B. THE HUAWEI SECURITY ISSUE

YC pointed out that many of Leap's network facilities in major markets employ Huawei equipment, not only including the South Texas region but also Chicago. Additional Huawei installations are in Milwaukee, Spokane, Boise, Reno and possibly other markets. According to the House Permanent Select Committee on Intelligence⁶, the use of Huawei equipment in wireless networks constitutes a security risk to the United States and to the integrity of customer communications. So serious is this risk that the Commission, at the urging of CFIUS and other federal agencies, refused to approve the SoftBank acquisition of Sprint without a condition forbidding future Huawei network use and requiring the removal of the equipment already in place. There can be no doubt that if this transaction involved the acquisition of Leap by a foreign entity, CFIUS and the Commission would insist on similar conditions due to the risk involved.

The Huawei issue is especially grave in relation to the South Texas market. There the House Intelligence Committee investigated a specific incident in which the security of Cricket's network node in San Antonio was said to have been breached by Huawei, raising concerns that

⁵ We note that TracFone is now a substantial player but strictly on a resale basis.

⁶ *Investigative Report on the U.S. National Security Issues Posed By Chinese Telecommunications Companies Huawei and ZTE*, October 8, 2012.

[http://intelligence.house.gov/sites/intelligence.house.gov/files/documents/Huawei-ZTE%20Investigative%20Report%20\(FINAL\).pdf](http://intelligence.house.gov/sites/intelligence.house.gov/files/documents/Huawei-ZTE%20Investigative%20Report%20(FINAL).pdf)

proprietary information had been sent to China without authorization.⁷ This incident in Cricket's own network underscores the fact that security concerns about this equipment are not idle.

There is no reason why a clear and present national security risk should not be examined in the context of a domestic merger as well as a foreign one. In fact, given the clear position of the security authorities in the executive branch that Huawei equipment needs to be excised from the phone network, or at least the networks of major carriers, the Commission would be remiss if it permitted AT&T to integrate the offending equipment into its network.⁸ Given the lack of serious response to the issue by AT&T, we cannot tell whether, from a technical standpoint, the Huawei equipment could infect the remainder of the AT&T network such that the entire network is compromised. But even if only the large and medium-sized markets where the equipment is now installed are at risk for security breaches, the matter is critical enough to merit more than a brush off from AT&T.

AT&T's only comment on this issue in the Joint Opposition was to note that it will be switching out the Huawei equipment in less than 2 and half years. *Jt. Opp.* at footnote 150. That's not good enough. Assuming a commitment from AT&T (either voluntary or imposed) to continue to provide CDMA service for a reasonable length of time in the Leap markets (to avoid leaving the existing customer base high and dry), that means that the AT&T network would be at risk for at least 18 months and presumably much more since the switch-over to new equipment will not be instantaneous. The solution to this problem in the event this transaction is approved is to (i) require AT&T to disclose to what extent, if any, the Huawei equipment could taint or compromise the security of the rest of their network outside the markets where it is currently

⁷ See attached Exhibit A.

⁸ We note that Pocket Communications considered installing Huawei equipment before it was acquired by Leap. Pocket decided not to proceed when the FBI alerted it to the potential security concerns. Leap apparently had no such qualms.

deployed, and (ii) require the currently deployed Huawei equipment to be switched out prior to any closing with AT&T. In no other way can the integrity of the network be guaranteed. We note in this regard that Australian authorities have banned Huawei from participating in the National Broadband Network which is being constructed there, so there is a well-founded international basis for segregating Huawei from basic communications networks.

We must also add that AT&T, in toting up the cost savings it will enjoy from this transaction, failed to account for the enormous cost of switching out the Leap CDMA equipment for GSM or other equipment. While some equipment upgrades would surely occur naturally, the cost of changing out an entire network must be staggering, yet AT&T does not seem to have entered that cost into its public benefit analysis of this deal.

C. THE PRE-PAID MARKET IS GROWING AS A COMPETITIVE ALTERNATIVE TO VERIZON WIRELESS AND AT&T

The Applicants go to considerable lengths to demonstrate that there is ample competition in the prepaid market and therefore the erasure of Cricket from that equation will not diminish competition. Ironically, the Applicants' showing proves the reverse. First, the Applicants argue that Leap is not a disruptive force in the marketplace because it is having no impact on competition and "fails to evoke a competitive response." Jt. Opp. at p. 20. Yet almost in the same breath, the Applicants point to T-Mobile aggressively going after Leap markets where "customers are hungry for something new", the launch of T-Mobile's GoSmart prepaid brand, the growth and success of Sprint's Virgin Mobile and Boost prepaid brands, Verizon's announcement of its intention to be "more aggressive" in the prepaid space, and the rapid growth of prepaid MVNOs. Not mentioned is AT&T's own launch of the Aio brand for prepaid. Indeed, the acquisition proposed here is *itself* an effort by AT&T to elbow its way quickly into the prepaid

space.⁹ What these various moves indicate is not an *absence* of competitive response but rather a massive across the board reaction to a perceived threat from prepaid service providers -- of which Leap is the prime exemplar.¹⁰ The competitive response in AT&T's case was not to lower prices and offer more no-contract services but rather to simply buy its competition. Acquisition is the sincerest form of flattery.

Quite apart from the facts laid out above, AT&T has previously represented to the Commission that Leap is one of the competitive providers which constrains the pricing decisions, as well as other terms and conditions of service, of the major carriers, including AT&T.¹¹ Yet, without missing a beat, it now asserts with equal vigor that Leap has no impact on competition. Presumably AT&T knew in 2011 whether Leap evoked a competitive response, despite the Commission's dismissal of that claim. Nothing has change in the intervening two years to cause that response to change. We are thus forced to ask the familiar question: were they misrepresenting then or are they misrepresenting now?

While there can be no doubt that the T-Mobile/MetroPCS combo is a disruptive and vigorous competitor in this space (thanks to the Commission's refusal to approve T-Mobile's acquisition), most of the other examples cited by the Applicants are suspect. The efforts of Sprint, Verizon and AT&T itself to manufacture "value" brands alongside their high-priced offerings can never be truly disruptive. A company will never compete with itself to its own detriment. Unless AT&T converted itself entirely to the Leap prepaid model, it would never

⁹ "[W]here the company is exposed is at the price-sensitive end of the market...That's one of the reasons we're doing the Cricket deal." Statement of Randall Stephenson, AT&T CEO, Ex. E of YC original Petition to Deny.

¹⁰ Technically, Leap is more of an "advance pay" carrier -- one which offers a fairly broad array of services comparable to post-paid providers on a flat rate basis but requires the customer to pay in advance and has no long term contracts. A typical pre-paid provider offers a narrower range of limited services which the customer uses up until they expire. The advance pay model is more akin to post-paid in look and feel to the consumer than the pre-paid model.

¹¹ Joint Opposition of AT&T Inc., Deutsche Telekom AG, and T-Mobile USA, Inc. to Petitions to Deny and Reply Comments, WT Docket No. 11-65 (filed June 10, 2011) (acknowledging providers such as Leap constrain the pricing decisions, as well as other terms and conditions of service, of the major carriers, including AT&T).

permit its off-brand to cut significantly into its bread and butter post-paid business. We can confidently predict that we will never see in the post-transaction world a billboard such as the one depicted in Exhibit F of YC's Petition: "Cricket plans: Half the price of AT&T and Verizon."

This economic reality is amply verified by the second quarter and third ARPU figures published respectively by AT&T and Leap. Leap's ARPU for its advance pay product was \$44.89 while AT&T's post-paid product enjoyed an ARPU of \$66.20.¹² AT&T is not about to encourage or vigorously promote the shifting of its subscriber base to lower ARPU services.

Finally, we must observe that several of the prepaid providers that AT&T points to as offering a highly competitive presence are MVNOs who simply resell the services of large facilities-based carriers like AT&T and Verizon. The strategic path being followed by the facilities-based carriers is not difficult to discern. By offering the MVNOs very low rates for resale, they can soak up the low cost prepaid market and effectively make it impossible for smaller facilities-based carriers to compete. Once the competitive threat from those carriers is eliminated by buying them (as is being done with Leap) or by driving them out of business by making it impossible for them to match the low prices of the MVNOs, the majors can simply raise the rates to MVNOs and either eliminate them from the distribution chain or reap the higher rates charged to them. This is referred to as predatory pricing by proxy.

D. COMPETITIVE SITUATION IN SOUTH TEXAS

As we noted above, AT&T and Leap completely ignore the damning import of the HHI concentration analysis which YC supplied for South Texas, and they do not even attempt to quantify or explain away excessive HHI concentrations in other markets across the U.S. Instead,

¹² See Exhibit B Second Quarter, 2013 Financial Report for Leap Communications, Inc. and Exhibit C, Article reporting Third Quarter, 2013 financials of AT&T Corp.

they cheerfully proclaim that "wireless competition in South Texas will continue to be vibrant after the transaction." Jt. Opp. at p. 34. The basis for this good cheer is difficult to grasp from the materials they present.

First, the Applicants point to Sprint as a "very strong competitor" in South Texas, while derogating Leap for losing small percentages of its market share in the region. Yet when we compare the data set forth by Dr. Israel in Appendix 2 (based on June, 2013 data) with the information provided by the Applicants in the original Ex. 8 of the application (based on AT&T's [BEGIN REDACTED INFORMATION]

[END

REDACTED INFORMATION] If Leap's loss of market share over the last year shows that it is feckless and in "general decline," how can Sprint's [BEGIN REDACTED INFORMATION]

[END REDACTED

INFORMATION] equate to a "vibrant" competitor which is "strong and growing stronger?"

These data cry out for further analysis by the Commission with complete current market share information for all players in the South Texas market and other concentrated markets.

Second, though everyone acknowledges that Sprint is a competitive force in the south Texas market while Verizon is uncharacteristically absent, its roughly [BEGIN REDACTED

INFORMATION]

[END REDACTED

INFORMATION] in South Texas if this transaction is approved. Moreover, the two largest carriers combined would hold over [BEGIN REDACTED INFORMATION]

[END REDACTED INFORMATION] of the market in most of the South Texas markets analyzed by IAE in Appendix B of its report.

There should be no doubt that if this transaction is approved, South Texas will have gone in a few short years from one of the *most* intensely competitive markets in the country with flat rate prices as low as \$25 per month to one of the *least* competitive markets -- an effective duopoly. Prices for consumers will rise dramatically, as they did when Leap bought Pocket. And this two step process will have occurred with the Commission's full blessing as being in the public interest. It is this progression that should be sending up clarion alarms as AT&T and Verizon mop up the remaining regional carriers before some sort of spectrum cap is imposed.

E. LOSS OF CRICKET WILL LIMIT ROAMING AVAILABILITY AND INCREASE ROAMING COSTS

YC observed in its Petition that the range of potential roaming partners for CDMA carriers is rapidly shrinking as Verizon and AT&T each year buy a half dozen or so independent operators. When bought by AT&T, the roaming network is promptly converted to GSM. When bought by Verizon, the roaming rates rise as soon as possible to prohibitive Verizon levels. As noted in YC's Petition, the roaming rates charged by Verizon are so high as to make it economically impossible for an ordinary carrier to roam on that network. And Sprint's network is neither as broad nor as reliable as Verizon's. Leap's CTO submitted a declaration indicating that Sprint's network covers about 84.9% of the area covered by Leap. Even accepting this assertion as true (*dubitante*), this leaves carriers with no economically feasible roaming partner

in more than 15% of the country, apart from a handful of small localized carriers. Moreover, the loss of Leap removes the sole "disruptive" roaming service provider from the CDMA market entirely and leave Verizon and Sprint to be able to raise roaming rates at will. A roaming market with two suppliers is the antithesis of the Commission's principle that there should be at least four providers to assure competitiveness in a wireless market.¹³

F. MISCELLANEOUS ISSUES

Several points raised by Applicants in their Joint Opposition require only brief response

1. AT&T has offered in connection with the commitments it made in California to maintain Cricket's \$40/mo unlimited talk, text and data plan for 18 months. While this is well and good, the necessary implication is that after 18 months, the rates will rise. Indeed, this is virtually an economic certainty since one of the prime checks on AT&T's ability to charge more for such services (Cricket) will no longer be a competitor. The Commission should not be duped into accepting short-term palliatives that sweeten the pill but leave the patient permanently crippled in the long term.¹⁴

The Commission should also ensure that AT&T is required to provide 4G services to both Cricket customers and customers roaming on AT&T's network -- not just 3G. The commitments AT&T has made to the California PUC and which it extends here to other Cricket markets, does not make clear what level of service is going to be offered. AT&T repeatedly touts the benefits to customers of having access to its 4G LTE network, but its commitments to

¹³ "Generally, we find that, in any market in which the transaction would reduce the number of genuine competitors to three or fewer, the proposed transaction may result in a significant likelihood of successful unilateral effects and/or coordinated interaction." *In the Matter of Applications of Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings LLC*, 23 FCC Rcd 17444 (2008) at Para 101.

¹⁴ In this connection, the Commission should look twice at AT&T's offer to maintain Cricket customers in their current rate plans as long as they don't suspend service on that plan. The Commission should recognize that in this prepaid service niche, customers very frequently suspend service for a month or two due to cash shortages or other temporary causes. The seemingly generous AT&T offer is therefore a path to eliminating many customers as soon as they suspend service.

the regulators are curiously vague about whether these commitments include immediate access to AT&T's 4G service. Do existing customers get access to 4G service right away or only after the legacy CDMA network is abolished? Leaving Cricket customers with only 3G service is like relegating them to second class status unless they "buy up" to the premium AT&T level of service. By the same token, customers of carriers who have roaming agreements with Cricket should also have access to the 4G network when they are roaming. And because, as AT&T repeatedly reminds us, LTE is much more spectrally efficient than 3G, the cost of roaming should not go up.

2. AT&T urges the Commission to reject non-transaction-specific conditions, per its usual policy. YC agrees that any conditions imposed should be tailored to remedy specific evils caused by the transaction at hand. Here YC proposed

i) conditions to ensure that roaming on the rates currently charged by Cricket remains available to other CDMA carriers for the near term. This condition addresses specifically the crisis in the CDMA roaming market that will be caused if this transaction is approved. We note that the Commission did recognize in the SpectrumCo transaction that roaming access would be affected by that acquisition and imposed a specific condition on Verizon to remedy the problem;

ii) a condition limiting the spectrum acquisition here to any limits ultimately imposed in the Spectrum Cap proceeding. Licenses are not uncommonly conditioned on the outcome of pending proceedings likely to impact the interim action.¹⁵ The condition requested here will ensure that the Commission's decision in the Spectrum Cap proceeding is not undermined at the outset by transactions in violation of the cap that have already been finally approved;

iii) a condition to ensure that Cricket's customers are not forced to buy new phones and pay higher prices if they migrate to the AT&T network;

¹⁵ See, for example, the conditions imposed on license renewals while Docket 10-112 is under consideration.

iv) a condition requiring divestiture of markets including South Texas where the market share and spectrum aggregation caused by the merger would be most intense; and

v) a condition requiring AT&T to ensure interoperability of its network with handsets on different frequencies and band plans. The first four of these are measures to remediate specific adverse effects which approval of this transaction would have on consumers and other carriers. The interoperability requirement arises out of the further spectrum consolidation which would occur in the wireless market place from this transaction. With the elimination of another national carrier, as explained by IAE in its Report, the effects of non-interoperability become more pernicious and less correctible in the future.

3. AT&T touts as a benefit of this transaction its ability to put to use Leap's stores of unused spectrum. Yet AT&T does not mention its own vast stores of unused spectrum. Before accepting the public interest benefit in AT&T's ability to exploit unused spectrum resources, the Commission should really inquire into how much unused spectrum AT&T itself already has.

4. AT&T touts the selection of handsets it will offer Cricket customers, yet Cricket offers the same products listed by AT&T.

5. AT&T embraces as a principle the rule that LTE rollouts balance out the anti-competitive effects of market share concentration. *Jt. Opposition* at p. 14-15. That AT&T would think that such a rule applies is understandable since the Commission seems in several cases in the past to have traded off a serious reduction in competition in exchange for marginally sooner LTE rollouts. YC hopes that this has not become enshrined as a matter of Commission policy because it encourages - even invites -- players in the wireless market to engage in anti-competitive behavior (which is presumptively contrary to the public interest under the anti-trust laws) with the expectation that this "bad" can be compensated for with a "good" of obtaining

some desirable service sooner rather than later. One need only enunciate this policy to see that it is wrong. The Commission should not and need not be selling indulgences to incent public interest-driven conduct. It has other tools at its disposal to effect those changes and should use them.

To the extent that the Commission imposes conditions on AT&T that involve post-transaction compliance, whether voluntarily assumed by the AT&T or imposed as a result of concerns raised by petitioners, it is imperative that the Commission create a mechanism for monitoring compliance. A simple and non-burdensome way of monitoring compliance would be to require AT&T to submit a report each quarter for the duration of the condition detailing its compliance -- or non-compliance -- with the obligations it will have assumed.

6. YC noted in its original Petition that the fate of Leap's "Muve" feature was unclear. Muve is a popular and unique music download service offered by Cricket. YC posed the question as to whether this service would be carried forward under the AT&T umbrella. Given the Applicants' silence on this point both initially and in Opposition, we must assume that Leap customers will involuntarily lose one of the important benefits they held as a Cricket customer. The scale of supposed benefits to Cricket customers vs. debits is weighing less and less in their favor.

G. CONCLUSION

For the reasons set forth above and in the attached IAE Reply Comment, as well as the reasons set forth in YC's original petition to deny, the proposed transaction should be found to be damaging to competition and diversity in the wireless market and contrary to the public interest. If the Commission nevertheless sees fit to approve it, it should first require the Applicants to submit the additional information necessary to intelligently assess the dangers posed, and it

should impose the conditions requested by YC to mitigate the harms that will otherwise flow from this transaction.

Respectfully submitted,

Youghioghenny Communications, LLC

By _____ /s/ _____

Donald J. Evans
Its Attorney

Fletcher, Heald & Hildreth
1300 N 17th St.
Suite 1100
Arlington, VA 22209
703-812-0430

CERTIFICATE OF SERVICE

I hereby certify that on this 31st day of October, 2013, I caused true and correct unredacted copies of the foregoing Reply to Joint Opposition to be served by electronic mail upon:

Peter J. Schildkraut
Arnold & Porter LLP
peter.schildkraut@aporter.com

James H. Barker III
Latham & Watkins LLP
jim.barker@lw.com

Additionally, I caused redacted true and correct copies of the foregoing Reply to Joint Opposition to be served by first-class mail, postage prepaid (+), or electronic mail upon:

+ Michael P. Goggin
Gary L. Phillips
M.E. Garber
AT&T Inc.
1120 Twentieth Street, NW, Suite 1000
Washington, DC 20036

+ Robert J. Irving, Jr.
Virginia D. Estes
Leap Wireless International, Inc.
5887 Copley Drive
San Diego, CA 92111

John Schauble
john.schauble@fcc.gov

Kate Matraves
catherine.matraves@fcc.gov

Linda Ray
linda.ray@fcc.gov

David Krech
david.krech@fcc.gov

Kathy Harris
kathy.harris@fcc.gov

Jim Bird
transactionteam@fcc.gov

Best Copy and Printing, Inc.
fcc@bcpiweb.com

_____/s/_____
Cheng-yi Liu

**ATTACHMENT:
IAE REPLY COMMENT**



Reply Comments to Dr. Mark Israel’s Reply Declaration

Concerning

An Analysis of Competitive Effects and Consequences for Consumers and Other Stakeholders from the Proposed Acquisition of Leap Wireless by AT&T (IAE Analysis)

**Information Age Economics
4530 Dexter Street, N.W.
Washington, D.C. 20007**

Authors:

**Alan Pearce, Ph.D, iaepearce@aol.com,(202) 466-2654
Martyn Roetter, D. Phil, mroetter@gmail.com,(617) 216-1988**

Summary 1

1. Rebuttals in the *Reply Declaration* 4

 1.1 Competitive significance of Leap in the wireless market..... 4

 1.2 Relative competitive positioning and overlap of AT&T and Leap..... 5

 1.3 Competitive impact of the acquisition of Leap by AT&T 6

 1.4 Substitutability of Low Band and High Band Frequencies 7

2. Non-Rebuttals or Omissions in the *Reply Declaration*..... 10

 2.1 Impact and effects of AT&T’s non-interoperable LTE deployments..... 10

 2.2 HHI-based analysis of markets in South Texas 13

 2.3 Anti-competitive role and actions of AT&T against small operators 13

 2.4 Public Policy for small operators and the AT&T/Leap Transaction 14

 2.4.1 Value of small but competitive operators..... 15

 2.5 Information Gaps 16

3. Conclusions 16

Appendix 1: The U.S. Communications Act – Section 256 18

Appendix 2: The Likely Impact of the Interoperability Deal 20

Summary

We have reviewed sections of Dr. Mark Israel’s Reply Declaration¹ that critique and attempt to rebut the *IAE Analysis*² of the background, implications and consequences

¹ Reply Declaration of Dr. Mark Israel, pp. 58-97 in <http://apps.fcc.gov/ecfs/document/view?id=7520950301>

² Information Age Economics, “An Analysis of Competitive Effects and Consequences for Other Stakeholders from the proposed Acquisition of Leap Wireless by AT&T, “ pp. 67-100 in <http://apps.fcc.gov/ecfs/document/view?id=7520946079>



of the proposed AT&T/Leap transaction. We find that his rebuttal falls into two categories:

- Repetition of positions previously presented in his first flawed Declaration³ with minimal, non-substantive, and weak unconvincing additional assertions and evidence submitted to support them, sometimes accompanied by misleading representations of IAE's research report;
- The non-rebuttal of facts included in IAE's report, which he completely ignores, with no attempt to address them, thus leading to the conclusion that he either agrees with them, or finds them irrelevant (which we demonstrate is not the case) or can develop no reasonable rebuttal.

The first category of theoretically weak and flawed rebuttals of IAE's analyses and findings includes the:

1. Competitive significance of Leap in the wireless market;
2. Relative competitive positioning and overlap of AT&T and Leap;
3. Competitive impact of the acquisition of Leap by AT&T;
4. Extent of substitutability between low and high band frequencies.

The second category of non-rebuttals to the IAE analyses and findings covers the:

1. Impacts and short-to-medium term effects of non-interoperability in AT&T's deployments of LTE;
2. IAE's HHI-based analysis of markets in South Texas;
3. Anti-competitive role and actions of AT&T in weakening Leap and other small yet competitive operators;
4. Overall implications of the positions advocated by Dr. Israel and AT&T for the future of all small U.S. mobile operators;
5. Competitive value of small U.S. mobile operators;
6. Information Gaps.

Dr. Israel states that he does not attempt to address every argument made by Petitioners (including several of those in the *IAE Analysis*), which does not indicate that he agrees with them. This statement, however, raises the question of the basis on which he has chosen the arguments and assertions that he did address and why he included some while completely ignoring others. In this response, we demonstrate that some of IAE's issues that he chose to ignore are central to the business, competitive and regulatory future of the U.S. wireless sector of the telecommunications-information-entertainment (T-I-E) industry. Therefore, it is concluded that any serious, comprehensive analysis of the potential consequences

³ Dr. Mark Israel, "An Economic Analysis of Competitive Effects and Consumer Benefits from the Proposed Acquisition of Leap Wireless by AT&T," <http://apps.fcc.gov/ecfs/document/view?id=7520937366>



of the AT&T/Leap transaction should, and indeed must, take these critical issues into consideration by the Federal Communications Commission (FCC) in determining whether to approve, approve with conditions, or reject, the proposed AT&T-Leap Wireless transaction.

In these IAE analyses, we demonstrate that Dr. Israel refuses to acknowledge and accept verifiable and validated facts that we have presented to him that irrefutably contradict his original “findings”. Consequently, Dr. Israel lacks credibility both in his earlier Declaration, now reinforced in his lengthy and unconvincing *Reply Declaration*.

Dr. Israel makes various citations of so-called “fundamental economic principles” in which he attempts to rebut IAE’s data driven factual evidence and analyses. However, he does not provide any specific evidence to justify the applicability of these “fundamental” principles, and presumably universal principles, to the specific and related issues posed by the proposed AT&T/Leap transaction which IAE and other parties believe to be critically important to the future development and viability of the rapidly evolving U.S. wireless market.

In contrast, wherever possible, IAE provides actual and factual data in support of research conclusions and findings (e.g., observed and factual spectrum prices that, as demonstrated below, Dr. Israel attempts to dismiss and denigrate as “anecdotal” information). In some instances, we also base our findings on consideration of physical laws (e.g., electromagnetic propagation) or “fundamental scientific principles.” Dr. Israel ignores or dismisses these real world verifiable and validated data and IAE’s adherence to and use of socio-economic, business, scientific and engineering knowledge.

The Israel *Reply Declaration* is therefore simply a repetition of the contents of the earlier Declaration, minus any additional substantive supporting evidence. It includes, as noted, attempts at rebuttal of a subset of our evidence-based findings by invoking “fundamental principles” that are allegedly valid across all sectors of the economy and all merger transactions without justification of their relevance to the AT&T/Leap transaction. These attempts are accompanied by a refusal to take notice of several other key findings in the *IAE Analysis* that expose the harmful consequences of this proposed transaction for consumers and competition in the U.S. wireless market.

In IAE’s reply comments, we demonstrate how and why the Israel *Reply Declaration* does not present convincing rebuttals of our previous conclusions and findings, and expand on the IAE issues that Dr. Israel chose not to address.



1. Rebuttals in the *Reply Declaration*

1.1 Competitive significance of Leap in the wireless market

AT&T admits that Leap has been a significant competitor, stronger than AT&T itself, in its prepaid services offered to wireless subscribers. The *IAE Analysis* and other parts of the Petition to Deny of Youghioghny Communications, LLC (YC), presented evidence of how AT&T has contributed to the competitive and business difficulties Leap by its actions and behavior with respect to critical aspects of Leap's business. The abrupt about face of Leap's positioning of itself from a national to a much more geographically limited competitor in order to win approval of its merger with AT&T by downplaying its competitive significance has also been demonstrated by the IAE and YC submissions.

The T-Mobile/Metro PCS merger consummated earlier in 2013 is not a model that justifies approval of AT&T's acquisition of Leap Wireless. Critical differences between the two transactions are also discussed elsewhere in these Reply Comments. Two particular distinctions between these transactions that are relevant in the context of the *IAE Analysis* are that:

1. T-Mobile has not behaved towards or taken actions harming Metro PCS in ways comparable to the behavior and actions of AT&T (see Section 2.3 below) with respect to small operators, and
2. T-Mobile's and Metro PCS's LTE deployments are in the interoperable AWS band unlike AT&T's that were launched in an unauthorized non-interoperable band (see Section 2.1 below).

Therefore arguments for rejection of the AT&T/Leap transaction presented in the *IAE Analysis* and in Sections 2.1 and 2.3 of these Reply Comments based on these considerations were not applicable to the case of the T-Mobile/Metro PCS merger.

Prepaid products are expanding in importance and in variety as AT&T has acknowledged in its depiction of the recent initiatives of T-Mobile and Sprint. Its acquisition of Leap would remove an historical pioneer from this service market segment and implicitly reward AT&T for the harm it has been causing to small operators via discriminatory, anti-competitive business tactics in critical areas such as roaming and the introduction of LTE non-interoperability. Approval of the acquisition of Leap by AT&T would send a widespread and deeply discouraging signal to the community of small operators and also to potential additional investors in the U.S. wireless market. AT&T must not be allowed to overcome the competitive market participation of smaller providers of wireless services.



There is another path forward that will continue to stimulate and sustain competition from a more diverse set of competitors than AT&T believes are viable. This alternative scenario is outlined further in Section 2.4 below.

1.2 Relative competitive positioning and overlap of AT&T and Leap

In the *Reply Declaration*, Dr. Israel states (Section IV) that we mischaracterize his opinion as saying that AT&T and Leap are not competitors, and draw conclusions that are inconsistent with fundamental economic principles and established methods of antitrust analysis. He maintains that AT&T and Leap are not close competitors (or they are distant competitors) and thus significant adverse unilateral effects resulting from the merger are unlikely.

A reading of the *IAE Analysis* (see Section 4) shows that we do not believe that Dr. Israel views AT&T and Leap as not being competitors, rather that as he insists he views them as not being “close” competitors. They are not “close” competitors because even where their products do compete, in the prepaid product arena, AT&T is a weak competitor of Leap. We believe that the word “weak” is a better descriptor of the competitive positioning between AT&T and Leap than the words “distant” or “not close”. The weakness of AT&T’s prepaid products explains why the porting data which Dr. Israel again cites in the *Reply Declaration* reveals that few subscribers who move from Leap to another service provider choose AT&T compared to alternatives than would be the case if they moved in proportion to AT&T’s and its other competitors’ overall shares in the wireless market.

The discussion of substitute services (Section 4 in the *IAE Analysis*) provides the economic basis on which it is reasonable to conclude that there are forces at work in the U.S. wireless market that are bringing AT&T and Leap, as a prepaid-only product supplier, closer together as competitors. It is therefore essential to take these factual and actual forces, and their impact on the U.S. wireless market, into account when considering the competitive impact of the acquisition of Leap by AT&T (see section 1.3 following). This impact will be felt in the future U.S. wireless market.

The future or emerging wireless market is the appropriate and correct frame of reference for analysis of the proposed AT&T/Leap transaction while still paying attention to the past and present. The influence of the past will linger - in some cases for long periods (e.g. license assignments in the valuable 850 MHz or cellular band) - but it should not be assumed that the future will be, or should be, a simple extrapolation of what has gone before, or that its structure is inevitable. The FCC can and should take steps to influence the future along directions that are more rather than less desirable from the perspective of wireless service competition and the broader public interest. If current trends, that would be confirmed and reinforced by approval of the AT&T/Leap merger, are not reversed or at least substantially modified, the nation will be left with only three or at most four national wireless service providers. In this scenario the country would lose the



diversity, flexibility and entrepreneurial vibrancy found among a group of small operators that can benefit both customers and small third party applications developers looking for channels to bring their innovative ideas to fruition (see Section 2.4.1 below).

1.3 Competitive impact of the acquisition of Leap by AT&T

Dr. Israel repeats his “finding” that the acquisition of Leap by AT&T will not and indeed cannot have any consequences for competition because the two operators are “distant competitors.” However, the idea that the merger of companies whose current service products are not close competitors cannot have significant market effects – that may be adverse – reflects a static view of competition that fails to take account of pragmatic and realistic alternative market scenarios, especially in technologically dynamic areas such as the mobile services sector. Recent and actual business initiatives by Sprint and T-Mobile, referenced by AT&T and Dr. Israel, that were not visible as recently as January 2013, demonstrate the possibilities. Instead of invoking unsupported “fundamental economic principles” that are without any evidence of being universally valid and applicable⁴, analysis of the actual and real competitive effects of an AT&T/Leap merger in the wireless market should and must take account of sector-specific and company-specific factors and forces. These forces are influencing the trajectory of, and creating alternative futures for, this sector if the transaction is rejected.

By its own admission AT&T has not been a strong competitor in prepaid products. It has been a distant, or labeled more accurately, a weak competitor to Leap, that offers ONLY prepaid services. AT&T’s decision to launch “Aio”, a prepaid offering, demonstrates that it recognizes the growing relative importance of prepaid services in the wireless market. Now AT&T’s proposed acquisition of Leap, if approved, will remove a significant prepaid supplier from the currently competitive market. AT&T has decided not to develop its own improved prepaid portfolio with the same competitive spirit and vigor that, according to its own assessment, Sprint is doing, as well as T-Mobile. T-Mobile is the operator that, according to AT&T’s previous representations to the FCC among others, could not continue as an independent operation, and would survive ONLY if acquired by AT&T!

The wireless market, if AT&T acquires Leap, will contain one fewer competitor, as opposed to the growth of a viable and more competitive market if Leap remains independent of AT&T. This alternative scenario could develop with this additional competitor in the wireless market, one moreover that has been able to play a significant role in some regions of the country, for example South Texas. New investment could be stimulated as a result of a desirable change in the environment that limits and/or rejects the anti-competitive and sector consolidation strategies of

⁴ The same logic might lead to the conclusion that competition is conducted and all relevant assets operate on the same basis in the market for potato chips as in that for silicon chips.



the largest U.S. operators in their attempts to weaken as opposed to coordinate their networks with smaller competitors for the benefit of customers as prescribed in Section 256 of the Communications Act (see Appendix 1).

We have noted in AT&T's California Commitments Letter that currently Cricket customers have to pay anti-competitive and discriminatory roaming charges of up to \$0.25 per minute⁵. While Cricket customers (CDMA and interoperable LTE) do not roam on to AT&T's networks (GSM and non-interoperable LTE) nevertheless these retail prices indicate a pattern of wholesale roaming charges by large U.S. operators to their smaller brethren that are unreasonable and certainly not cost based. Information about the extent to which AT&T participates in charging unreasonable and excessive rates for roaming, and/or puts other roaming obstacles in the way of small competitive operators who require national coverage if they are to be competitive for customers located in their regional and local license areas, should become part of the review process.

A new investor could bolster Leap without the anti-competitive consequences and other harmful effects if it is acquired by AT&T, just as Softbank is already visibly strengthening Sprint's capabilities, and the sizable break up fee paid to T-Mobile (or its parent Deutsche Telekom) by AT&T in cash and spectrum has helped T-Mobile to launch new competitive initiatives in the U.S. wireless market⁶.

Any finding or conclusion that the proposed AT&T/Leap transaction will have no significant market effects (even when viewed in isolation, let alone its cumulative effects in combination with other AT&T acquisitions and spectrum transactions) is unjustified and wrong. It neglects the foreclosure by this transaction of alternative plausible and more competitive market scenarios, just as AT&T's arguments in favor of its proposed acquisition of T-Mobile in 2011 ignored alternative paths forward for this operator that it is now vigorously pursuing.

1.4 Substitutability of Low Band and High Band Frequencies

Dr. Israel persists in his denial of verifiable, independently sourced facts in his assertion in the *Reply Declaration* that (footnote 85): *"The fact that the associated build-out costs are higher for high-frequency spectrum does not establish that low-frequency spectrum rights are essential. The appropriate focus of a foreclosure analysis is the full cost of entry or expansion, which, for wireless services, is the*

⁵ See pp. 8-9 of AT&T's October 8, 2013 letter to California Public Utilities Commission attached to the filing at <http://apps.fcc.gov/ecfs/document/view?id=7520950307>

⁶ Sprint Looks To A New Future With Softbank, But Subscriber Growth A Concern ,” <http://seekingalpha.com/article/1596742-sprint-looks-to-a-new-future-with-softbank-but-subscriber-growth-a-concern> ; “T-Mobile Announces Boldest Moves Yet as America's Un-carrier,” <http://newsroom.t-mobile.com/phoenix.zhtml?c=251624&p=irol-newsarticle&ID=1836669>



combined cost of spectrum and network facilities needed to obtain coverage and capacity. A fundamental lesson of economics is that market forces generally will equate the costs of substitutes, which means that prices of different types of spectrum will adjust to equate the total costs of providing equivalent service (i.e., the rights for spectrum requiring greater facilities investment will tend to sell for less than rights to spectrum requiring less facilities investment).

IAE's position and findings about low and high band spectrum are based on the laws of electromagnetic propagation and Shannon's Law⁷ that relate capacity to bandwidth, as well as the verifiable costs of both passive and active elements of network infrastructure and civil engineering and the prices paid for spectrum licenses. Dr. Israel's position is based on an unsupported assertion of the applicability of a "fundamental economic principle (or lesson)" to wireless networks without any evidence presented to contradict that which we have produced to demonstrate that this principle or lesson is invalid in this case, whether or not it is valid in other markets or for other truly substitutable assets.

The "fundamental economic principles" he is fond of citing are not necessarily universal. Such a principle may not apply across all markets and circumstances, and where there is verifiable evidence to show that it is invalid in a specific case then the evidence should prevail over stubborn adherence to the theory or the hypothesis. The accumulation of evidence in a growing number of circumstances is key to testing a theory or a principle, determining how "fundamental" it is, and if necessary modifying or replacing it with an improved or new theory, just as relativistic mechanics replaced Newtonian mechanics⁸. Dr. Israel's "fundamental economic principles" are not eternal or unquestionable verities .

Dr. Israel's dismisses our evidence (footnote 86) – *while providing none of his own* – by referring to it as "...IAE's anecdotes from historical spectrum acquisitions under different market conditions or assertions that conclusions based on fundamental economic principles must be wrong." To dismiss the actual prices paid in past and recent spectrum auctions as "anecdotal" is tantamount to rejecting the rules of evidence that economists generally accept, which is a "fundamental principle" of rational and credible analysis in any discipline. Our position on the roles and relative values of low and high band spectrum in mobile networks is not a matter of opinion or a judgment call to which there are alternatives that can be supported in good faith. It is a matter of fact.

Also in footnote 86, Dr. Israel reiterates his position that the sentence fragment he

⁷ This law formulated by Claude Shannon at Bell Labs in 1948 determines the theoretical maximum rate at which error-free digits can be transmitted over a bandwidth-limited channel in the presence of noise.

⁸ Although in most circumstances the predictions of calculations based on Newtonian mechanics remain accurate for all practical purposes.



and his co-authors quoted from a T-Mobile document in another filing in another FCC Docket does indeed support the points that, "... high frequency spectrum can substitute for low frequency spectrum and that it may even be better than low frequency spectrum in urban areas, the one place where foreclosure concerns are even plausible." He continues to ignore what T-Mobile wrote immediately afterwards, as reproduced in the *IAE Analysis*, namely, "As noted above, however, lower band spectrum provides a variety of critical spectral advantages that are not available from spectrum in the upper bands."

Network operators that cover a wide variety of demographic and geographic environments, such as are found in the U.S., try to achieve both the best possible (ideally seamless) coverage (signal strength) and the highest capacity (Mbps/ unit area) per dollar of investment and operating expense with the spectrum at their disposal. Low band is superior to high band spectrum in terms of coverage in two situations as a consequence of its propagation characteristics. First, it enables coverage of relatively low population density regions to be achieved with far fewer base stations than high band spectrum. Second, it delivers higher signal strength within buildings from outside base stations than high band spectrum whose signals are generally attenuated more severely when they penetrate buildings. More effective penetration of wireless signals through walls is useful in densely populated as well as in lightly populated areas.

On the other hand, high band spectrum can deliver higher capacity than low bands, since the high bands contain considerably more bandwidth. This high capacity is needed in densely populated areas. Thus the optimum spectrum portfolio for an operator in order to achieve the best cost and performance in an overall combination of coverage and capacity includes both low band and high band spectrum.

An operator that has only high band spectrum can, in principle, cover low density areas with networks deployed in this spectrum, but it will incur much higher costs, because of the substantially greater number of cell sites needed, than an operator that can deploy such a network using low band spectrum. Furthermore, in order to achieve the quality of in-building coverage possible with low band spectrum, whether in low or high population density areas, the high band only operator will be obliged to deploy in-building equipment and/or to find and deploy more base stations in densely populated areas so that more buildings are closer to a cell center or transmitter. In contrast, an operator that holds only low band spectrum will not be able to deploy enough capacity to provide an acceptable quality of service to a substantial customer base in a densely populated area.

In other words the threat and consequences of foreclosure of spectrum apply to both densely and sparsely populated (i.e., rural) areas. Furthermore, given the more limited bandwidth in low bands compared to high bands, the foreclosure threat is greater for low band than for high band spectrum, since the number of licenses that



can be awarded with efficient amounts of bandwidth (at least 2x10 MHz and ideally wider channels) is inevitably correspondingly smaller.

Finally, we note as another item of allegedly (according to Dr. Israel) “anecdotal” evidence about spectrum prices that, as of October 23rd 2013, in the ongoing highly competitive multiband auction in Taiwan, bids for 1800 MHz spectrum were running at \$0.846 per MHz-POP and for 700 MHz licenses at the lower price of \$0.493 per MHz-POP⁹. According to Dr. Israel’s “fundamental economic principle” this result in which the licenses for low band spectrum, that enable lower facilities costs for coverage purposes, are less expensive than licenses for high band spectrum cannot occur¹⁰. Facts, as John Adams said, are stubborn, even more stubborn than Dr. Israel clinging to a principle that in this case they conclusively invalidate.

Lord John Maynard Keynes, the great British economist, retorted when his change of mind in some matter was challenged: “When the facts change, I change my mind. What do you do, sir?” This question and the answer are apt in the context of an honest, factual debate about the extent of the merits and the harmful consequences of the proposed AT&T/Leap transaction.

We suggest that Dr. Israel should be asked by the FCC to confirm or invalidate his unsupported assertions about low band spectrum by delivering, or asking AT&T to deliver, factual engineering economic information on the relative total costs of wireless networks (including the costs of the spectrum licenses involved) in order to provide coverage in rural areas, as well as on the relative signal strengths within buildings delivered by outside macrocells, in both cases using high and low band frequencies respectively. Then perhaps they will finally abandon attempts to persuade the FCC and others to ignore the inescapable implications of the laws of physics, sound engineering practices and real world data on spectrum prices and infrastructure costs in their deliberations and decisions.

2. Non-Rebuttals or Omissions in the Reply Declaration

2.1 Impact and effects of AT&T’s non-interoperable LTE deployments

The *IAE Analysis* covered the impact of AT&T’s unauthorized introduction of LTE non-interoperability as a major source of concern for the future of the U.S. wireless market, and the contribution to its expansion by the acquisition of Leap as well as its implications for the migration of Leap’s customers to AT&T. The characterization of AT&T’s non-interoperability or introduction of Band Class 17 as unauthorized (i.e., a

⁹ National Communications Commission (Taiwan regulator) – the final winning bids announced on October 30 2013 were for an average of \$0.954 per MHz-POP for 1800 MHz licenses and \$ 0.493 per MHz-POP for 700 MHz licenses.

¹⁰ This may be an example of a “black swan” event, but in any case the price of low band spectrum would have to reach uneconomically high levels before it compensated for the much higher costs of network deployments in rural areas at high band frequencies.



major initiative by one operator in the way in which spectrum for commercial mobile services is managed, ignoring and without the involvement of the FCC, despite its industry-wide consequences) is confirmed by the decision of the DC Circuit Court of Appeals upholding the FCC's Data Roaming Order, in which it is stated: "Title III affords the Commission "broad authority to manage spectrum . . . in the public interest."¹¹ The *IAE Analysis* presented evidence of the unilateral origins and significant consequences of non-interoperability in which AT&T has been, and remains (see Appendix C of the *IAE Analysis*) a prime mover. The assessment of the market impact of a significant new initiative by AT&T, such as its proposed acquisition of Leap, must therefore take these consequences into account.

We have reviewed the recently approved (October 25 2013) FCC *Report and Order and Order of Proposed Modification* in the Matter of Promoting Interoperability in the 700 MHz Commercial Spectrum (FCC Docket WT 12-69)¹². The Order contains core elements of the "Interoperability Deal" announced in September 2013 by AT&T that was based on the MBFI (Multiband Frequency Indicator) solution¹³.

We have already demonstrated (see Appendix 2) that this deal, and therefore the Order, is, at best, essentially non-interoperable over the next two to three years in terms of any practical impact on the rapid growth predicted for non-interoperability. At worst, it will ensure that non-interoperability becomes a permanent, embedded and uniquely North American feature of the LTE-based broadband environment. By the time any beneficial effects of MBFI may theoretically be felt, one half or more of mobile devices in use in the U.S. will be non-interoperable and non-interoperable bands will have been partnered with interoperable bands through carrier aggregation.

The Order contains several opportunities for AT&T to find reasons to delay or limit the implementation of Interoperability, e.g., Sections 48 and 67¹⁴. It also includes a brief history of the introduction of Band Class 17 in which responsibility is assigned to Motorola (Sections 8 and 9) with not one word about AT&T's major role. The strong relationships between Motorola and AT&T at that time, and the presence at the 3GPP in 2008 of AT&T (and Verizon) as (to the best of our knowledge) the only participants from among U.S. operators while Band Class 17 was being defined and approved, are not mentioned. This absence of participation by other interested

¹¹[http://www.cadc.uscourts.gov/internet/opinions.nsf/7B51B23B929B39AA85257ACA005372EF/\\$file/11-1135-1408107.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/7B51B23B929B39AA85257ACA005372EF/$file/11-1135-1408107.pdf); the initiative of one network operator AT&T, as recounted in Section 2 of the *IAE Analysis* to define and then implement a new band plan without to the best of our knowledge reference to, or the prior approval of, the FCC, justifies use of the term "unauthorized."

¹² http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db1029/FCC-13-136A1.pdf

¹³ <http://apps.fcc.gov/ecfs/document/view?id=7520942822>

¹⁴ For example in Section 67 it is stated, "However, if at any time, AT&T encounters obstacles beyond its control that threaten its ability to meet these commitments, or undermine the quality of the service it is providing on its network, AT&T may so inform the Commission and seek an extension of time or a waiver as appropriate."



parties including those directly affected by the introduction of Band Class 17 that was not foreseen when they acquired 700 MHz Lower Band A licenses should be further investigated by the FCC.

The Order does not mention or address the question of how to mitigate or prevent the substantial expansion of non-interoperability that will take place over the next few years, that has been repeatedly identified in several filings to the FCC, most recently in September 2013 (Appendix 2). The greater this expansion the more grounds AT&T will be able to find to justify requesting extensions or even waivers “as appropriate” of its voluntary commitments.

Furthermore, it is made clear that AT&T’s “voluntary commitments” to Interoperability depend on the FCC’s agreement and action by the end of 2013 to change the technical rules for the 700 MHz Lower Band D and E Blocks, which is seemingly an obvious quid pro quo.

While consideration of the Interoperability *Report and Order* was originally on the agenda of the FCC’s “Open” Meeting on October 28th, it was subsequently deleted from the agenda and was approved prior to the meeting “on circulation”. This process of approval without public discussion is not unknown, but it is not normally used in matters of such wide and fundamental importance. Non-interoperability has consumed substantial amounts of time and effort by many wireless operators and others, including Commission staff, for several years.

We note that the technical solution produced by AT&T in September 2013 was approved by the 3GPP RAN (Radio Access Network) plenary well over a year earlier, in June 2012, as a means to enable 700 MHz Lower Block A mobile devices to roam onto networks that support only Blocks B and C (i.e. AT&T’s Band Class 17)¹⁵.

The entire history and progression of Non-Interoperability, from inception through initial implementation, expansion and now continued spreading with unenforceable voluntary commitments by its major beneficiary to limit it, and then only after a few more years have passed, have been characterized by non-transparent closed processes and decision making from which many legitimately concerned stakeholders have been excluded. Key issues that have profound public policy implications are not normally or traditionally dealt with in this manner.

The *Report and Order* acknowledges that lack of interoperability is harmful to consumers and to economies in rural areas, as well as to small businesses and other interests. Yet the remedies announced to mitigate the effects of non-interoperability will at their very best only produce some limited improvements a few years in the

¹⁵ More information on MBFI can be found in Section 8.2.2 (Support for MFBI) in the report: http://www.4gamericas.org/documents/4G%20Americas-Benefits%20of%20Digital%20Dividend-September_2012.pdf



future, thereby allowing non-interoperability to cause more harm during the intervening period than it has until now. These improvements will then only be achieved if AT&T, that has shown an impressive ability to resist and delay initiatives to tackle non-interoperability for the past few years, now becomes determined to make this proposed and apparently discretionary solution work.

Dr. Israel ignores non-interoperability in the *Reply Declaration*, as he did in his original Declaration despite its importance as a factor in the U.S. wireless market, and the prospects for its substantial expansion in the next two years with no effective steps in view to halt, let alone reverse it. Hence his analysis of the competitive impact of the AT&T/Leap transaction (see also Section 1.3 above) is woefully incomplete and his finding that it will have no material impact is unjustified.

2.2 HHI-based analysis of markets in South Texas

The *Reply Declaration* does not present any discussion of the HHI analyses of South Texas included in the *IAE Analysis*. This omission is also apparent throughout the Joint Opposition to which the *Reply Declaration* is attached, and contrasts with the extensive review of HHI calculations in the recently approved acquisition of ATN by AT&T¹⁶. The ATN acquisition was approved in September 2013, despite the competitive harm that was identified as a result of the HHI analyses, on the grounds that this harm would be mitigated by public interest benefits when combined with voluntary commitments by AT&T to allay competitive concerns.

The competitive harm associated with the HHI analyses in the Leap transaction is at least as serious, if not more so, than that in the case of the ATN transaction, given the greater size of Leap compared to ATN. Therefore, any commitments made by AT&T to mitigate this harm should be thoroughly investigated in light of whether they are credible, based on AT&T's traditional pattern of behavior, especially if they are not linked to any incentives for compliance or penalties for non-compliance. Once the merger is approved and consummated, it cannot in practice be reversed, no matter how far AT&T falls short of living up to the commitments it makes.

2.3 Anti-competitive role and actions of AT&T against small operators

Dr. Israel ignores the evidence and descriptions presented in our earlier report (*IAE Analysis*, Section 1.1) of the ways in which AT&T has contributed to the difficulties now faced by Leap that in his and AT&T's view leave an acquisition by AT&T as the only way forward for Leap. Indeed, Dr. Israel states that Leap is only bound to become weaker in future, absent such an acquisition. Of course Leap's position is bound to deteriorate further, if nothing is done to halt the depredations of AT&T on

¹⁶ <http://www.fcc.gov/document/att-acquisition-atn-approved-conditions>



the businesses of all small operators. The effects of AT&T's actions in areas such as non-interoperability and roaming, if unchecked by the FCC and/or the Department of Justice (DOJ), become more pronounced and severe with every passing month and year.

As pointed out in the previous *IAE Analysis*, even if it is assumed that AT&T actually takes its interoperability deal seriously – in contrast, for example, to the FCC's Data Roaming Order – its positive effects for operators holding 700 MHz Lower Band Block A licenses would not be felt in the next 18 months to two years, during which period a substantial expansion of non-interoperability will have been deployed. This expansion will include inter-band carrier aggregation between Band Class 17 and for example the AWS band, a process that this deal does nothing to stop or slow down.

In effect Dr. Israel's presentation of the growing difficulties of Leap (see point 61 in the *Reply Declaration*) confirms the position we took in the *IAE Analysis* that approval of this acquisition would reward AT&T for having harmed Leap and other small operators. It would justify any acquisition of a small operator by AT&T and would lead eventually and inexorably to the extinction of this category of competitor. Is this a desirable outcome, and/or an implicit goal of public policy?

2.4 Public Policy for small operators and the AT&T/Leap Transaction

The *IAE Analysis* (Section 9) emphasized the importance and necessity of considering the broad and macro-economic implications of the proposed AT&T/Leap transaction, the latest in a long line of events in the U.S. wireless market of requested consolidations and initiatives by AT&T that are transforming the competitive structure and the relationships between customers and wireless services providers. If all the arguments presented by AT&T and Dr. Israel are accepted as valid and as enabling the maximization of total welfare then the eventual outcome will likely be the disappearance of all small wireless operators into the embrace of a handful of national players.

It may be argued that this outcome is in fact desirable, although we present a few ideas below as to why it might not be. The question is whether this outcome is or should be an objective of public policy. The predictable outcome of the acceptance of, and basing "public policy" decisions on, the unsubstantiated assertions and arguments presented by AT&T and Dr. Israel should be a prime consideration by the FCC in its deliberations about the merits of proposed mergers such as the one now proposed between AT&T and Leap Wireless.

To the best of our knowledge, an outcome in which there would be no or almost no independent small wireless operators, is not a formal public policy objective in the U.S. Indeed, and in fact, the value of small network operators (wireless and wireline)



has been widely acknowledged as being in the public interest, and they have received special consideration through public funding and other mechanisms, justified in part by the realization that these small operators serve some customers that are not economically attractive to the large operators, and would otherwise be neglected by them.

Assuming that the survival of small operators is a continuing desirable national goal, then the arguments of AT&T and others that, if accepted as justified, will lead inexorably to the extinction of these operators (e.g., the greater efficiencies in spectrum use, lower costs, etc., of the larger operators that increase monotonically with their size to create maximum benefits for customers, i.e. only the big can and should survive) should not be accepted at face value. They should be tempered with other considerations of the value of small operators that justify the rejection of some, not necessarily all, proposed mergers between a national operator, such as AT&T, and a small operator, such as Leap Wireless.

2.4.1 Value of small but competitive operators

The *IAE Analysis* referred (Section 5.1) to the value small operators and services providers have traditionally been able to bring to various customer segments in the U.S. wireless market whose needs have not been well served and are of relatively low priority to the national players. These segments may be defined by geography or by customers' affiliation along one or more dimensions. Small operators can be more attuned to the particular circumstances of selected groups of customers and can try out innovations more flexibly and rapidly with fewer bureaucratic layers of approval to go through than in the large operators. These innovations if successful may be adopted subsequently by wider groups of customers.

The marketplace for innovative ideas that require access to wireless channels would become less fertile if small operators became an extinct species. One of their benefits is that small applications developers given scant attention or low priority by large operators can seek out a small operator more attuned to the value of small businesses, able to reach decisions rapidly, and therefore willing to give their new application a chance by affording them access to devices on its network. A few of these applications may then succeed on a broader stage thanks to growing awareness in the wireless market of their value that is generated through enthusiastic reception by early users and viral marketing that even the large players cannot ignore.

The question of the special value of small operators for specific segments of customers and innovation within a huge and diverse national market, such as the U.S., is not one to which AT&T or Dr. Israel have paid attention in analyzing the pros and cons of AT&T's latest initiative to reduce their number. Nonetheless, it is relevant to the broader policy implications of approving a transaction such as the AT&T/Leap merger.



2.5 Information Gaps

The *IAE Analysis* identified several areas in which information should be requested from the Applicants as part of the review process of the proposed AT&T/Leap transaction. The purpose of this information is to enable various assertions and unsubstantiated claims of the Applicants to be validated and verified. This validation is indispensable because these claims are critical to the cases for and against approval or rejection of this proposed deal.

No comments have been forthcoming from AT&T, et al., as to whether or why the information requested should not be supplied, subject to appropriate conditions of confidentiality. We do not know if in this case silence indicates agreement or not. But since no objections have been raised to them the Information Gaps delineated in the *IAE Analysis* should be filled as soon as possible, with the addition of the network engineering cost data described in Section 1.4 above.

3. Conclusions

We conclude, as before, that approval of the AT&T/Leap transaction would constitute an endorsement of the anti-competitive business strategy deployed by AT&T. Acceptance of the arguments and assertions presented by AT&T and supported by Dr. Israel to justify this transaction, that we have exposed as flawed and in some cases fundamentally flawed and contradicted by easily verifiable facts, would leave a wide and potentially irreversible path forward for the eventual disappearance of all small operators as independent companies. Yet there is no public policy justification for this outcome. Indeed, the continuing, competitive roles of these small operators have traditionally been recognized as positive and valuable, and therefore must be encouraged.

Our analyses again demonstrate that careful consideration must be given and taken into account in the FCC's review of the proposed AT&T/Leap transaction of both AT&T-specific and macroeconomic factors, especially those that have either been misrepresented or ignored by the Applicants in terms of their harmful consequences including:

- Public policy implications of a shrinking and ultimately dried up pool of small independent wireless operators.
- Short-, medium-, and long-term consequences for customers and competition of the strategy and tactics of AT&T that would be expanded and reaffirmed with the acquisition of Leap Wireless. Approval of this transaction would for practical purposes signal acquiescence in or be construed as a reward for such behavior as AT&T's:
 - Resistance to reasonable roaming arrangements;



- Deployment of non-interoperable LTE systems and the sale and marketing of carrier-specific devices following and building on the unauthorized introduction of Band Class 17;
- Repeated presentations in its own documents as well as in those commissioned from and submitted by third parties such as Dr. Israel that ignore fundamental scientific principles and engineering knowledge in the advocacy of positions on issues such as spectrum aggregation and the role of low band spectrum;
- Challenges to the authority of the FCC to impose any meaningful regulations on its behavior.
- Extent to which AT&T has fulfilled commitments it has made in the past, both voluntary and imposed, and the likelihood that it will do so with respect to those it makes to win approval of the Leap acquisition.

For the purposes of the review of the AT&T/Leap transaction additional information that should be gathered from the Applicants and assessed includes the information specified in Section 7 of the *IAE Analysis*. It should also include network costing information to prove or disprove AT&T's and Dr. Israel's repeated contention that there is no significant economic disadvantage to an operator in providing signal coverage in rural areas at high band compared to low band frequencies.

AT&T's resistance to the FCC's authority over broadband access¹⁷ is tantamount to rejecting its authority over all telecommunications, since soon all communications traffic including narrowband services such as voice will be transmitted (and most traffic already is) over broadband facilities.

The credibility of any commitments made by AT&T is at stake, given its patterns of anti-competitive behavior and the positions it takes or continues to support in spectrum-related matters (e.g., measure of spectral efficiency and total deployment costs of networks in different frequency bands) that are contradicted by consideration of the laws of physics and the use of verifiable cellular network engineering cost data. AT&T's credibility is further undermined by the terms of the so-called "Interoperability" deal and its link to voluntary, as opposed to FCC enforced, commitments.

The FCC should therefore reject the proposed AT&T acquisition of Leap Wireless.

¹⁷ Susan Crawford, "New FCC Head Must Reclaim Authority Over Telecom," <http://www.bloomberg.com/news/2013-09-17/new-fcc-head-must-reclaim-authority-over-telecom.html>; "FCC votes to reconsider broadband regulations (Update 2)", <http://phys.org/news195926449.html> "Modernizing the FCC: It's Not Complicated," <http://www.attpublicpolicy.com/broadband-policy/modernizing-the-fcc-its-not-complicated/>



Appendix 1: The U.S. Communications Act – Section 256

SEC. 256. [47 U.S.C. 256] COORDINATION FOR INTERCONNECTIVITY¹⁸.

(a) PURPOSE.--It is the purpose of this section--

(1) to promote nondiscriminatory accessibility by the broadest number of users and vendors of communications products and services to public telecommunications networks used to provide telecommunications service through--

(A) coordinated public telecommunications network planning and design by telecommunications carriers and other providers of telecommunications service; and

(B) public telecommunications network interconnectivity, and interconnectivity of devices with such networks used to provide telecommunications service; and

(2) to ensure the ability of users and information providers to seamlessly and transparently transmit and receive information between and across telecommunications networks.

(b) COMMISSION FUNCTIONS.--In carrying out the purposes of this section, the Commission--

(1) shall establish procedures for Commission oversight of coordinated network planning by telecommunications carriers and other providers of telecommunications service for the effective and efficient interconnection of public telecommunications networks used to provide telecommunications service; and

(2) may participate, in a manner consistent with its authority and practice prior to the date of enactment of this section, in the development by

¹⁸ The provisions in this Section of the Act are pertinent in the wireless sector to the behavior of the two largest wireless operators Verizon and AT&T and to expectations of how they will act if allowed to operate as unregulated entities. They have resisted the reasonable implementation of the FCC's Data Roaming Order and introduced non-interoperability in the 700 MHz Band without coordination with other operators or the FCC in the framework of the global standards body 3GPP at which at the time (2008) neither the FCC nor other operators were represented. Furthermore they are planning to combine non-interoperable 700 MHz deployments with other bands when carrier aggregation is introduced in 2014-2015. These actions by the two largest U.S. broadband operators ignored the FCC's authority over U.S. airwaves (i.e. frequencies).



- appropriate industry standards-setting organizations of public telecommunications network interconnectivity standards that promote access to--
- (A) public telecommunications networks used to provide telecommunications service;
 - (B) network capabilities and services by individuals with disabilities;
 - and
 - (C) information services by subscribers of rural telephone companies.
- (c) COMMISSION'S AUTHORITY.--Nothing in this section shall be construed as expanding or limiting any authority that the Commission may have under law in effect before the date of enactment of the Telecommunications Act of 1996.
- (d) DEFINITION.--As used in this section, the term "public telecommunications network interconnectivity" means the ability of two or more public telecommunications networks used to provide telecommunications service to communicate and exchange information without degeneration, and to interact in concert with one another.



Appendix 2: The Likely Impact of the Interoperability Deal

This Appendix reproduces the Comment and Letter filed by Information Age Economics shortly after the announcement by AT&T of its voluntary Interoperability Deal. They can be found at <http://apps.fcc.gov/ecfs/document/view?id=7520942933> and <http://apps.fcc.gov/ecfs/document/view?id=7520943043>.

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

In the Matter of Docket No WT 12-69 Promoting Interoperability in the 700 MHz Commercial Spectrum

Comment of Information Age Economics

**Information Age Economics
4530 Dexter Street, N.W.
Washington, DC 20007**

**Authors: Alan Pearce, iaepearce@aol.com, (202) 466-2654
Martyn Roetter, mroetter@gmail.com, (617) 216-1988**

September 11, 2013

We have reviewed the deal proposed by AT&T to achieve LTE interoperability in the 700 MHz Lower Band. Regrettably, this proposed solution fails several basic criteria before it is to be considered as credible and enforceable, or likely to guarantee interoperability in our time.

Analysis of the commitments made by AT&T¹⁹ makes it clear that actual implementation of the deal:

- Will be up to the “sole discretion” (p. 3 of Letter) of AT&T;
- Foresees a timeline during which the number of non-interoperable devices in service in the U.S. will expand by many tens of millions²⁰;

¹⁹ Letter from AT&T to Chairwoman Mignon Clyburn, September 10, 2013, <http://apps.fcc.gov/ecfs/document/view?id=7520942822>



- Does not affect and leaves the gate wide open for the further expansion of non-interoperability, not only through the introduction of carrier aggregation, that will likely be deployed beginning in 2014-2015, but also potentially in the future 600 MHz Band, thereby providing further opportunities for the launch of new non-interoperable devices²¹;
- Is not based on an industry solution because although interoperability is a matter of fundamental importance that affects ALL users and providers of wireless services it has not been developed by an independent body representing all the industry, but by a subset of operators;
- Is not enforceable in any practical way since no penalties or incentives are specified in order to make sure that AT&T lives up even to the conditional commitments it makes, that are, in any case, left to its "sole discretion."

²⁰ One forecast predicts there will be over 260 million LTE subscriptions in the U.S. by 2017 (<http://www.fiercewireless.com/story/report-us-lte-subscribers-will-make-70-connections-2017/2013-06-11>), so it is not hard to envisage a number of well over 100 million non-interoperable devices in service during 2015, combining the customer bases of AT&T and Verizon.

²¹ Coincidentally with the release of the AT&T letter about its interoperability deal, Apple announced its next versions of the iPhone 5 (the 5C and 5S) that include NO Band 12 compatibility.



September 12, 2013

VIA ECFS

The Hon. Mignon Clyburn
Chairwoman
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

*Re: In the Matter of Promoting Interoperability in the 700 MHz Commercial Spectrum,
WT Docket No. 12-69*

Dear Chairwoman Clyburn,

This letter outlines a proposal for overcoming the major deficiencies that we have already identified²² that are embedded in the proposed 700 MHz interoperability deal recently announced by AT&T.

We congratulate you and express our appreciation for your efforts with respect to the importance of interoperability. Your initiative followed several years of inaction in the face of AT&T's resistance to actions aimed at reducing and then eliminate the unauthorized non-interoperability it introduced in its deployments of LTE networks after the conclusion of the 2008 700 MHz Auction 73.

However, AT&T's proposal still leaves steps toward interoperability at its "sole discretion." Meanwhile major plans to expand the "non-interoperability" territory are being actively pursued, with no provisions or rules in place to prevent or reverse them.

Furthermore, as we pointed out in our previous Comment of September 11, there are no incentives or penalties envisaged to encourage AT&T to live up to its commitments,

As you and your staff know, interoperability is a principle enshrined in U.S. Communications Law and is a matter that affects ALL users of wireless services and ALL providers of wireless-based services, including MVNOs and OTT (over-the-top) players as well as facilities-based operators. It is inappropriate, and would set a

²² Letter from AT&T to Chairwoman Mignon Clyburn, September 10, 2013, <http://apps.fcc.gov/ecfs/document/view?id=7520942822>; Information Age Economics (IAE) Comment in Docket 12-69, <http://apps.fcc.gov/ecfs/document/view?id=7520942933>



dangerous, non-transparent precedent, if a deal to restore interoperability should be reached and imposed by a small group of stakeholders in the proverbial “back room,” however noble and honest the motivations of some of the participants.

This “back room” process is the antithesis of the open, transparent procedure that is required in reaching decisions on matters such as interoperability that are of vital importance to the future of the entire U.S. wireless market. Indeed, given the growing role of wireless/wireline convergence²³, interoperability is central to the broadband sector as a whole. The threat of continued non-interoperability will ultimately have repercussions on every single member of U.S. society.

The impact of non-interoperability and the issues it raises are far broader and more fundamental than those involved in commercial disputes between network operators. These commercial disagreements may reasonably be resolved through negotiations in a process that involves the immediately affected parties only, with the FCC as referee if needed. But for the purpose of establishing a nationwide interoperability deal, such a limited process is not consistent with respecting and upholding the public interest.

The proposed AT&T interoperability deal, as it stands, will do nothing, or very little, to stop or slow down a foreseeable large scale expansion of non-interoperability during the remainder of 2013 and in 2014 and 2015. As a result, we are faced with an imminent existential threat to the integrity of competition in the U.S. wireless market and the interests of all of us as users of wireless services²⁴.

We have been formulating ways in which the initial breakthrough to re-establishing interoperability in the fabric of U.S. wireless networks, thanks to your initiatives, can be used as a starting point. The goal is to establish a credible and enforceable path toward interoperability that will respect and protect the interests of all stakeholders.

We therefore respectfully urge the Commission to open the negotiating process for an Interoperability Mandate to participation by other interested parties, including inputs on the criteria that such a Mandate should satisfy, in terms of content and governance of its implementation, and specific proposals for the elements it should contain, and how it is to be practically enforceable.

²³ [“McAdam: Verizon to Pursue Integrated Wireless-Wireline Apps Post-Vodafone,”](http://www.telecompetitor.com/mcadam-verizon-pursue-integrated-wireless-wireline-apps-post-vodafone/)
<http://www.telecompetitor.com/mcadam-verizon-pursue-integrated-wireless-wireline-apps-post-vodafone/>

²⁴ IAE Reply Comments FCC Docket 13-135, also filed in Docket 12-69, “The Erosion of Effective Competition Through Non-Interoperability,”
<http://apps.fcc.gov/ecfs/document/view?id=7520933725>



Information Age Economics is ready to contribute to such negotiations and to make its ideas known for designing an effective and enforceable path towards interoperability and ensuring that competition, diversity and innovation in the U.S. wireless market are protected and stimulated for the foreseeable future.

In accordance with Commission rules, this letter is being filed electronically with your office for inclusion in the public record.

Sincerely,

Alan Pearce, Ph.D

iaepearce@aol.com
(202) 466-2654

Martyn Roetter, D.Phil

mroetter@gmail.com
(617) 216-1988

cc: Comm. Jessica Rosenworcel
Comm. Ajit Pai
Michele Ellison
Louis Peraertz
Ruth Milkman

A handwritten signature in black ink, appearing to read 'Alan Pearce', is positioned above a horizontal line.

Alan Pearce

A handwritten signature in black ink, appearing to read 'Martyn Roetter', is positioned above a horizontal line.

Martyn Roetter

October 31, 2013

Exhibit A:
Reuters Report on Huawei
Involvement in Cricket's San Antonio
Network Node



FREE LIFE INSURANCE QUOTE
[TAP HERE](#)

TOP NEWS

U.S. panel to probe new wave of complaints against Huawei, ZTE

Wed, Oct 10 07:34 AM EDT



« 2 of 11 »

By Jim Wolf

WASHINGTON (Reuters) - A U.S. congressional report that urged American companies to stop doing business with Chinese telecom equipment makers Huawei and ZTE has triggered a fresh wave of complaints against the firms, opening a second phase to the panel's investigation.

A staff member of the House of Representatives Intelligence Committee said the panel has been receiving "dozens and dozens" of calls from current and former employees and customers reporting supposedly suspicious equipment behavior, chiefly involving Huawei.

"I don't think the companies should expect our attention to stop," the staff member told Reuters, adding that the panel would follow up on new leads. The staffer was not authorized to speak publicly on the matter.

In a report issued on Monday after an 11-month investigation, the House committee warned U.S. industry that Beijing could use equipment made by the two companies to spy on certain communications and threaten vital systems through computerized links. It urged network providers to seek other vendors.

The report also advised the Committee on Foreign Investments in the United States (CFIUS), an inter-agency government panel that vets foreign deals for security concerns, to block any future business tie-ups involving Huawei or ZTE and U.S. companies.

Huawei, the world's second-largest maker of routers and other telecom gear, and ZTE, the fifth-largest, both rejected the allegations. China's Commerce Ministry said the U.S. committee had "made groundless accusations against China."

Adding to Huawei's problems, Canada indicated on Tuesday that it would exclude Huawei from firms allowed to build a secure Canadian government communications network, citing possible security risks.

In March, Australia barred Huawei from seeking contracts for the country's National Broadband Network due to cyber security concerns.

By contrast, the European Commission has delayed a trade case against the two Chinese telecom equipment makers, easing tensions between the European Union and its second-biggest trading partner.

Huawei is employee owned, has operations in more than 150 countries, with more than two-third of its annual revenue of \$32.4 billion earned outside of China.

In early trade on Wednesday, ZTE's Hong Kong-listed shares were up as much as 4 percent after having fallen 11 percent during the previous two days. Several brokerages said the investigations were likely to have minimum impact on ZTE's bottom line, with investors switching their focus to 4G spending, which is expected to benefit the company.

The U.S. panel's 52-page report did not present concrete evidence that the companies' equipment had been used for espionage, but a classified annex provides "significantly more information adding to the committee's concerns," it said.

Current and former U.S. intelligence officials said Huawei and ZTE, both based in Shenzhen in southern China, pose potential national security threats, but there did not appear to be a consensus about whether security breaches involving their equipment had been confirmed.

One former U.S. official said there were "smoking guns" that justified suspicions about Huawei, noting that the defense industry was a primary target. Another former senior U.S. intelligence official said the threat of illegal eavesdropping may be more theoretical than actual.

On Monday, House Intelligence Committee Chairman Mike Rogers referred to alleged instances of "beaconing" of information to China, though he did not name any specific users of Huawei's equipment that had been affected.

When asked for examples of such unauthorized transfer of information stored on a network, the staff member referred to an incident involving wireless operator Cricket, which is the operating subsidiary of Leap Wireless International Inc. Cricket uses Huawei to deploy its wireless network.

SAN ANTONIO VIRUS CASE

In May this year, unusual activity was observed on a Cricket network node in San Antonio, Texas, while Huawei equipment was being used there, the staff member said. According to this account, there was concern that information from the network was being sent without authorization to China.

Greg Lund, a spokesman for Cricket, said that some of its computers had been infected with viruses earlier this year, and an investigation revealed they were related to Huawei personnel working in the company's facilities. However, the investigation found no evidence that Cricket or its customers' proprietary or confidential information had been accessed, Lund said.

"There is no evidence suggesting that these incidents were the result of malicious activity on the part of Huawei," he said, adding that Cricket was not contacted by the committee during the course of its investigation, and the company did not complain to the committee.

William Plummer, a Huawei spokesman in Washington, recounted a San Antonio incident in a conference call with reporters on Monday, without naming Cricket or Leap.

He said that two independent security experts "were able to identify to the moment that that laptop was infected with a virus by a WiFi access point at that Texas hotel."

"Those are facts and to the extent the committee has any familiarity with those facts, then they also know that they have misrepresented them," said Plummer, a Huawei vice president for external affairs.

(Additional reporting by Jim Finkle, Sinead Carew, Mark Hosenball and Joseph Menn in Washington and Chyen Yee Lee in Hong Kong; Writing by Paul Eckert; Editing by Karey Wutkowski and Ken Wills)

[Email Article](#)

[Next Article in Top News](#)

[Home](#) » [Top News](#)

[Search](#) | [Quotes](#) | [Videos](#) | [Currency](#) | [Slideshows](#) | [Top News](#) | [Oddly Enough](#) | [Business](#) | [Entertainment](#) | [Sports](#) | [Deals](#) | [Hot Stocks](#) | [Technology](#) | [Politics](#) | [More Categories](#)

Exhibit B:
Excerpt from Leap Second Quarter
2013 Quarterly Report



FOR IMMEDIATE RELEASE

Leap Contacts:
Greg Lund, Media Relations
858-882-9238
glund@leapwireless.com

Amy Wakeham, Investor Relations
858-882-9876
awakeham@leapwireless.com

Leap Reports Second Quarter Results

- ARPU increased over \$3 year-over-year as device mix continues to shift to smartphones and higher-end service plans
- Significant year-over-year improvement in free cash flow

Note: A webcast of Leap's conference call and accompanying presentation slides will be available at 5:00 p.m. EDT today at <http://investor.leapwireless.com>.

SAN DIEGO - August 1, 2013 - Leap Wireless International, Inc. (NASDAQ: LEAP) today reported operational and financial results for the three and six months ended June 30, 2013. Total revenues for the second quarter of 2013 decreased 7 percent to \$731.5 million and service revenues decreased 10 percent to \$678.5 million. The Company reported \$148.8 million of adjusted operating income before depreciation and amortization (OIBDA) for the second quarter of 2013, compared to \$190.8 million for the prior year quarter. Second quarter 2013 operating loss was \$7.6 million, compared to operating income of \$31.6 million for the second quarter of 2012.

The Company reported approximately 240,000 core wireless gross customer additions for the second quarter of 2013 and approximately 255,000 core wireless net customer losses. Core wireless churn for the second quarter of 2013 was 3.6 percent. "Core wireless" refers to the Company's traditional, monthly voice service (Cricket Wireless) and excludes customers for Cricket Broadband and Cricket PAYGo™.

The Company reported a total of approximately 283,000 gross customer additions and a total of approximately 364,000 net customer losses for the second quarter of 2013. Total churn for the second quarter of 2013 was 4.3 percent.

Financial Results and Operating Metrics ⁽¹⁾(Unaudited; in millions⁽²⁾, except for customer data, operating metrics and per share amounts)

	Three Months Ended June 30,			Six Months Ended June 30,		
	2013	2012	Change	2013	2012	Change
Service revenues	\$ 678.5	\$ 751.3	(9.7)%	\$ 1,363.1	\$ 1,525.3	(10.6)%
Total revenues	\$ 731.5	\$ 786.8	(7.0)%	\$ 1,521.4	\$ 1,612.4	(5.6)%
Operating income (loss)	\$ (7.6)	\$ 31.6	*	\$ (36.9)	\$ 15.8	*
Adjusted OIBDA	\$ 148.8	\$ 190.8	(22.0)%	\$ 269.9	\$ 321.3	(16.0)%
Adjusted OIBDA as a percentage of service revenues.....	22%	25%	—	20%	21%	—
Net loss.....	\$ (156.4)	\$ (46.0)	*	\$ (266.0)	\$ (140.3)	89.6%
Net loss attributable to common stockholders.....	\$ (163.1)	\$ (41.6)	*	\$ (274.4)	\$ (140.0)	96.0%
Diluted loss per share attributable to common stockholders.....	\$ (2.09)	\$ (0.54)	*	\$ (3.50)	\$ (1.82)	92.3%
Gross customer additions ⁽³⁾	283,066	492,720	(42.6)%	756,947	1,352,267	(44.0)%
Net customer losses	(364,268)	(289,270)	25.9%	(457,305)	(31,210)	*
End of period customers.....	4,839,478	5,902,803	(18.0)%	4,839,478	5,902,803	(18.0)%
Weighted-average customers	5,031,930	5,992,047	(16.0)%	5,122,768	6,008,737	(14.7)%
Churn.....	4.3%	4.4%	—	4.0%	3.8%	—
End of period covered POPS.....	~96.2	~95.4	—	~96.2	~95.4	—
Average revenue per user (ARPU).....	\$ 44.89	\$ 41.64	7.8%	\$ 44.30	\$ 42.12	5.2%
Cash cost per user (CCU).....	\$ 27.79	\$ 22.91	21.3%	\$ 27.06	\$ 23.73	14.0%
Cost per gross addition (CPGA).....	\$ 387	\$ 296	30.7%	\$ 343	\$ 253	35.6%
Free cash flow.....	\$ (33.0)	\$ (103.8)	(68.2)%	\$ (33.8)	\$ (214.8)	(84.3)%
Free cash flow (excluding early debt prepayment premium).....	\$ 9.6	\$ (103.8)	*	\$ 8.8	\$ (214.8)	*
Net cash provided by (used in) operating activities.....	\$ (10.5)	\$ 15.3	*	\$ 15.0	\$ 50.6	(70.4)%
Cash purchases of property and equipment	\$ 22.5	\$ 119.1	(81.1)%	\$ 48.9	\$ 265.4	(81.6)%
Unrestricted cash, cash equivalents and short-term investments.....	\$ 913.1	\$ 524.4	74.1%	\$ 913.1	\$ 524.4	74.1%

Core Wireless Metrics

Core wireless gross customer additions ...	239,514	364,678	(34.3)%	632,498	996,590	(36.5)%
Core wireless net customer additions (losses)	(255,132)	(142,779)	78.7%	(263,634)	20,834	*
Core wireless end of period customers	4,381,735	5,029,314	(12.9)%	4,381,735	5,029,314	(12.9)%
Core wireless churn	3.6%	3.3%	—	3.3%	3.2%	—

* Percentage change not meaningful.

(1) For a reconciliation of non-GAAP financial measures, please refer to the section entitled "Definition of Terms and Reconciliation of Non-GAAP Financial Measures" included at the end of this release. Information relating to population and potential customers (POPs) is based on population estimates provided by Claritas Inc. for the relevant year.

(2) Minor calculation differences may exist in percentage changes due to rounding.

(3) The Company recognizes a gross customer addition for each Cricket Wireless, Cricket Broadband and Cricket PAYGo line of service activated by a customer.

Exhibit C:
Article re AT&T Third Quarter 2013
Report



BUSINESS (HTTP://BGR.COM/BUSINESS/) **4:13 PM** Sorry, John Legere: Your “uncarrier” crusade (<http://bgr.com/2013/10/23/t-mobile-tablets-200-mb-data/>) isn't



hurting AT&T (<http://bgr.com/2013/09/18/t-mobile-subscriber-growth-analysis/>) yet. AT&T (<http://bgr.com/tag/att>) on Wednesday posted solid results in its third-quarter earnings report with \$0.66 earnings per share on consolidated revenue of \$32.2 billion, thus beating Wall Street expectations for \$0.65 EPS. Among the highlights for AT&T in Q3 were net postpaid subscriber additions of 363,000, including 178,000 smartphone subscriber additions. The carrier's continued strong wireless performance helped push up its wireless revenues by 5.2% year-over-year from Q3 2012. **AT&T's average revenue per postpaid user also increased from Q3 2012, as its \$66.20 postpaid ARPU marked a 1.5% increase from the year before. AT&T's full press release follows below.**



LG G2

INTRODUCING A PHONE
INSPIRED BY YOU

(<http://g2.gumgum.com>)