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July 15, 2013

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## Via ECFS

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

Re: *Notice of Ex Parte Presentation*  
Docket No. 12-268

Dear Ms. Dortch:

In accordance with Section 1.1206 of the Commission's rules, 47 C.F.R. §1.1206, United States Cellular Corporation ("USCC"), by its attorneys, hereby provides notice of an oral ex parte presentation in connection with the above-referenced proceeding. On July 11, 2013, Joseph Hanley, Senior Vice President, Telephone and Data Systems, Inc. (parent company of USCC), Grant Spellmeyer, Vice President, Federal Affairs and Public Policy, USCC, and the undersigned met with Commissioner Ajit Pai and members of Commissioner Pai's staff, including Matthew Berry, Chief of Staff, Courtney Reinhard, Legal Advisor, Wireless, Nicholas Degani, Legal Advisor, Wireline, and Bryan Cleveland, Intern. Also joining the meeting via telephone were Roberto Yanez, Director of RF Engineering/Technology Development, USCC, Darryl Degruy, Senior Engineer, USCC, and George Wheeler, Partner, Holland & Knight LLP.

The discussion in this meeting centered on the issues detailed in the attached slide presentation. In addition, we responded to questions regarding the 600 MHz band plan that were posed during the meeting as follows: (1) we indicated that USCC would support uplink spectrum located below Channel 37; (2) we noted that having uplink spectrum blocks below Channel 47 would not be a concern for USCC; (3) we explained that filters could not be used to prevent harmful interference to uplink wireless operations from co-channel broadcast operations, and thus minimum distance separations would be required between these operations; (4) we explained that filtering could be used to prevent harmful interference to uplink wireless operations where the broadcast and wireless services are on adjacent channels, but that same-market, first-adjacent channel broadcast operations likely would require the use of a guard band in addition to proper filtering; (5) we did not endorse specific minimum separation distances with respect to the above, but explained that these distances likely would decrease in many markets as a result of the surrounding topography; (6) with respect to broadcast operations that are co- or adjacent- channel to downlink wireless operations, we explained that mobile devices typically are operated by consumers within urban clutter, which reduces the necessary geographic distance separations; and (7) we declined at this time to state whether USCC would support a band plan that included a

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smaller number of paired spectrum blocks in the most spectrum-constrained markets if doing so would permit a greater number of paired spectrum blocks in other license areas. Finally, we discussed the order of the reverse and forward auctions, expressing a preference for a sequential auction, but declining to state at this time whether we would prefer the forward or reverse auction to occur first.

Respectfully submitted,  
HOLLAND & KNIGHT LLP

/s/  
Leighton T. Brown  
*Counsel for United States Cellular Corporation*

Enclosure

cc (via email): Commissioner Ajit Pai  
Matthew Berry  
Courtney Reinhard  
Nick Degani  
Bryan Cleveland



# Spectrum Incentive Auction: An Opportunity to Promote Competition in the Wireless Market

Thursday July 11, 2013

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**Hello  
Better.<sup>SM</sup>**

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# Policy Goals

- The incentive auction procedures and 600 MHz service rules should not only permit, but promote, participation by small and regional carriers.
  - Supports statutory goals (47 U.S.C. § § 151, 303(g), 307(b), 309(j)(3) and 1302(a)).
  - Fosters a healthy, competitive mobile industry.
  - Maximizes auction revenues.
- Over the past decade, concentration in the wireless market has increased by over 33%, and the market remains well above the “highly concentrated” threshold.

# Policy Goals

- The following are critical to ensuring broad auction participation, and thereby increase competition and promote service deployments in rural and other underserved areas:
  - A clear, *ex ante* interoperability requirement;
  - Maximizing the number of paired spectrum blocks;
  - Small license area sizes;
  - No package bidding;
  - Random assignment process for the generic licenses;
  - No blind bidding;
  - An auction-specific spectrum aggregation limit;
  - Provisions for the participation of designated entities;
  - Reasonable build-out requirements and related penalties;
  - A sufficient license term with a renewal expectancy;
  - Clearing much-needed spectrum of broadcasters as soon as possible.

# Benefits of Interoperability

- Widely-acknowledged benefits of interoperability include:
  - Increased competition, which spurs investment and innovation and lowers costs for consumers;
  - More extensive and timely network deployments, particularly in rural and other underserved areas;
  - Sufficient and timely access to a variety of cutting-edge devices demanded by consumers;
  - Decreased device costs for both carriers and consumers;
  - Adequate roaming options; and
  - Reduced switching costs, making it easier for customers to migrate to rival carriers.

# Need for Interoperability Rule

- Although 600 MHz band plan can help to encourage interoperability, it cannot, by itself, ensure interoperability.
- Absent a regulatory requirement, the largest carriers, who alone can drive device development, have no incentive, and in fact have a disincentive, to offer interoperable devices.
- A clear, *ex ante* interoperability requirement would:
  - Reduce risk for small and regional carriers, and thus increase auction participation and revenue;
  - Permit the FCC to focus solely on creating a band plan that maximizes the potential of the 600 MHz spectrum;
  - Prevent a repeat of the Lower 700 MHz band, where the lack of interoperability has stranded investment and drastically delayed network deployments to many rural and underserved areas.
- FCC has ample authority to adopt an interoperability requirement.
  - 47 U.S.C. § § 151, 303(b), 303(g), 303(r), 309(j)(3) and 1302(a).
  - FCC previously required interoperability for cellular spectrum.

# Interoperability Proposal

- The FCC should require that:
  - All mobile devices designed to operate on 600 MHz paired spectrum must tune to all 600 MHz paired frequencies; and
  - All 600 MHz networks operating on 600 MHz paired frequencies must support the use of such devices.
- The terms “paired spectrum” and “paired frequencies” refer to how the frequencies are initially allocated and auctioned off in any market.
  - Otherwise, carriers could circumvent interoperability requirement by using only the uplink or downlink portion of a paired spectrum block.
- If the amount of paired spectrum is limited (*e.g.*, 2x25 MHz), the interoperability requirement should cover both paired and unpaired spectrum.
  - Otherwise, large carriers could monopolize the paired spectrum, leaving others with access only to unpaired spectrum that would not be subject to the interoperability requirement.

# Maximizing Paired Spectrum

- Band plan should maximize the number of paired spectrum blocks.
  - Spectrum should only be allocated for supplemental downlink after paired spectrum has been maximized.
- Benefits of maximizing paired spectrum:
  - Consistent with leading technologies, so allows carriers to deploy and expand 4G wireless broadband services more quickly and efficiently;
  - Uplink spectrum is critical for network expansion by small and regional carriers;
  - Unlike the largest nationwide carriers, small and regional carriers lack the extensive spectrum holdings for which supplemental downlink spectrum would be sufficiently beneficial to justify its acquisition;
  - Increased auction participation and revenue because small and regional carriers are less likely to bid on downlink-only spectrum blocks;
  - Increased auction revenue also because paired spectrum inherently more valuable; \* and
  - Absent sufficient paired spectrum, largest carriers could acquire most or all paired spectrum, leaving only supplemental downlink blocks – which have little to no value to many carriers – available to other bidders.

\* In the 700 MHz auction, the unpaired spectrum sold at a 46% discount in relation to the paired spectrum blocks. See study performed by The Brattle Group, Inc. and filed in ET Docket No. 10-123 on Apr. 11, 2011.

# Market Variation

- Market variation in the amount of uplink spectrum is critical to maximizing the number of paired spectrum blocks.
- Absent market variation, FCC would be forced to limit total amount of repurposed spectrum to that recovered in the “lowest common denominator” markets.
- Record reveals general consensus that interference potential could be successfully mitigated through technical and band plan solutions.

# License Areas

- 600 MHz band should be licensed on the basis of Cellular Market Areas.
- CMAs needed to preserve opportunities for small and regional carriers, as well as new entrants, to provide an important source of competition.
  - Larger service areas often are prohibitively expensive because they include densely populated urban locations and extend beyond smaller carriers' desired service areas.
- At the same time, large carriers would not be disadvantaged because adequate spectrum aggregation opportunities are available.
- CMAs benefit carriers of all sizes because they permit targeted spectrum acquisitions.
- CMAs would support much greater variation in the amount of reclaimed spectrum from area to area, and thus permit the FCC to license more spectrum that is not encumbered by remaining broadcasters.
- Past auctions demonstrate that spectrum offered on a CMA basis increases participation, bidding activity, and revenues.
  - In the 700 MHz auction, Upper C Block REAG-based licenses sold for \$0.76/MHz-pop, Lower A Block EA-based licenses sold for \$1.16/MHz-pop, and Lower B Block CMA-based licenses sold for \$2.68/MHz-pop.

# Package Bidding

- The FCC should not allow combinatorial, or “package,” bidding for any 600 MHz licenses.
- Package bidding could effectively foreclose auction participation by smaller bidders by skewing the auction in favor of the largest bidders, who could end up acquiring licenses at a discount.
- The uncertainty and risk associated with package bidding would deter small and regional carriers from participating in the forward auction.
- Package bidding would further complicate the incentive auction process.
- Package bidding is unnecessary because large carriers have adequate spectrum aggregation opportunities.
  - No carrier has needed a package bid to assemble its current spectrum footprint in any band. Package bidding is an extra weapon available only to large bidders, who do not need this added advantage to be successful in auctions.

# Generic Licensing & Assignment Process

- If the FCC uses generic licensing, the licenses need to be as similar and technically interchangeable as possible
- The subsequent license assignment process should be random.
- The assignment process should not include a preference to coordinate a winning bidder's frequencies across adjacent license areas.
- Under no circumstances should the assignment process include an additional round of bidding, which would overwhelmingly favor the largest carriers.
- Either of these approaches could force all other 600 MHz licensees into one or more pass bands devoid of the largest carriers and their ability to drive the device ecosystem.

# Blind Bidding

- The FCC should not employ blind bidding procedures.
- Maximizing the available information minimizes uncertainty, so increases auction participation and bid amounts.
- Particularly for smaller bidders, license valuations depend on certain technical considerations – *e.g.*, availability of interoperable devices and adequate roaming opportunities – that require sufficient information on the identities of likely other licensees.
- Advantages of blind bidding largely theoretical and marginal, making it unnecessary.
- There have been no serious allegations of collusive bidding in recent auctions, and, assuming an auction framework and band plan that sufficiently promote participation by carriers of all sizes, the forward auction will be highly competitive.

# Spectrum Aggregation Limit

- FCC should adopt auction-specific spectrum aggregation limit.
- Specifically, prohibit bidders from acquiring more than 25% of the spectrum made available for auction in a single market.
- An *ex ante* spectrum aggregation limit would:
  - Promote competition;
  - Prevent auction dominance by the largest carriers to the exclusion of others;
  - Expand auction participation, and thus revenue;
  - Spur investment and innovation;
  - Increase certainty and predictability for all carriers.

# Bidding Credits

- U.S. Cellular supports the FCC's proposal regarding bidding credits.
- "Small business" = average gross revenues for preceding 3 years not exceeding \$40 million.
  - 15% bidding credit
- "Very small business" = average gross revenues for preceding 3 years not exceeding \$15 million.
  - 25% bidding credit

# Performance Requirements

- Overly stringent performance requirements are unnecessarily burdensome, unjustified by market realities, and contrary to sound economic principles and business strategies.
  - Their effect is to discourage new investment, limit service to the public, force suboptimal network deployments, and diminish auction revenues.
- Small and regional carriers, in particular, are harmed by overly stringent performance requirements.
  - Unlike large national carriers, they lack extensive economic resources and existing networks and operating infrastructure.
- Smaller carriers are more likely to serve rural areas, so often lack the economies of scope and scale that carriers serving urban populations possess.

# Build-Out Proposal

- The following benchmarks would be adequate yet reasonable:
  - *Interim Benchmark*: Within 5 years after spectrum cleared of broadcasters, service to at least 35% of population in each license area.
  - *Final Benchmark*: Within 10 years after spectrum cleared of broadcasters, service to at least 70% of population in each license area.
- Penalty for failure to meet interim benchmark should be no more than accelerating final benchmark by one year.
- “Keep-what-you-use” penalty for failure to meet final benchmark is the best approach because it would sufficiently incentivize carriers without the risk of cutting off service to existing customers.

# License Term & Renewal

- License Term: License term should be at least 10 years, and should not begin to run until the spectrum has been cleared of broadcasters.
  - Doing so would add certainty and reduce risk, thereby increasing auction participation and promoting investment by carriers.
  - A sufficient amount of time with access to unencumbered spectrum is needed for licensees to recover spectrum acquisition and network deployment costs.
- License Renewal: FCC should not apply the renewal standards adopted in the *700 MHz First Report and Order* and proposed in the *WCS Renewal NPRM and Order*.
  - These standards would generate enormous and unnecessary paperwork burdens and create investment-killing uncertainty regarding the security of 600 MHz licenses.
  - FCC should instead allow competing renewal applications and, in their absence, process unopposed renewal applications in the same manner as renewals in the cellular and PCS services.

# Clearing Spectrum

- Clearing 600 MHz Band: Given the immediate need for additional spectrum, FCC should take steps to clear the repurposed spectrum of broadcasters as quickly as possible.
  - 18-month, rather than 3-year, construction period sufficient for broadcasters to relocate.
  - Tolling criteria should apply to extension requests, and extensions should be limited to a total period of 6 months.
  - Establish earlier deadlines for winning license termination and channel sharing bidders, neither of which need to construct new facilities.

# Clearing Spectrum

- Clearing Channel 51: Lower 700 MHz A Block licensees should not be forced to wait years longer to have unencumbered access to all of their spectrum holdings.
  - Allow agreements calling for Channel 51 broadcasters to (a) move to another channel, (b) channel share with another broadcaster, (c) cease broadcast operations, or (d) decrease their operating parameters, while retaining the right to participate in the reverse auction based on their previous, fully-authorized Channel 51 operations.
  - Establish expedited process for effectuating the terms of these agreements.