



Insight

Spectrum Auctions: Who Wants What

SAM BATKINS | DECEMBER 5, 2013

American Action Forum examined more than 300 *ex parte* filings to FCC from companies and public interest groups on the upcoming spectrum auctions. Below are the four broad, contested areas in the spectrum deliberations, followed by highlights from recent filings.

- **Competitive Bidding v. Restrictions on AT&T and Verizon:** Sprint, T-Mobile and some small wireless companies advocate for limits on the amount of spectrum available to all auction participants. Not surprisingly, AT&T and Verizon argue the very point of a market-based auction is to introduce competition, not to rig the rules in favor of certain participants. Earlier this year, AAF found full restrictions could reduce auction revenues by up to [40 percent](#), lower auction proceeds from \$31 billion to \$19 billion, and impair the first responder network. Many argue spectrum auctions are hardly the “Wild West” of capitalism; FCC has already established [spectrum screens](#) and it has issued more than half-a-dozen final rules establishing a framework for the upcoming auction. It will be nearly impossible for Members of Congress to [count on](#) auction revenue to offset part of sequester if additional regulations make it difficult for capital to join the auction.

- **Down from 51 Plan:** A tentative proposal that would clear broadcasters, starting at Channel 51, and then expand downward. There are variations on “DF51,” but it could add a guard band in addition to a duplex gap. Many wireless companies are concerned that requiring more than one guard band could reduce valuable spectrum. As one commenter wrote to FCC, “By requiring one more guard band ... than does the Down from 51 band plan, the Down from 51 Reversed band plan would unwisely, and perhaps unlawfully, reduce materially the amount of spectrum available for licensed use, thereby diminishing the revenue potential and increasing the likelihood of auction failure.”

- **Guard Bands:** Broadcasters prefer minimum guard bands to avoid interference between wireless providers. Free Press advocates a guard band or duplex gap for unlicensed use in every market. Google also pressed for unlicensed spectrum operation in guard bands, duplex gap, and Channel 37.

- **Cellular Market Areas v. Larger Economic Areas:** There is a strong emphasis from rural and local companies on cellular market areas (CMAs) to allow for strong competition in the auction. Smaller carriers believe CMAs are far more manageable, on a price basis, for them than wider economic areas.

Below are the highlights from *ex parte* filings to FCC

Name of Filer	Summary of Argument
AT&T	Principles for success: allow unfettered bidding; adopt hierarchical packaged bidding; spectrum aggregation policy should protect competition, not individual competitors.

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AT&T, Intel, NAB, Qualcomm, T-Mobile and Verizon	Goals to achieve: maximize spectrum auctioned; avoid interference. Principles: contiguous 'down from 51' plan with uplink at the top; maximize paired spectrum above TV37; rely on 5MHz spectrum blocks for the band plan.
Alcatel-Lucent	Undesirable to insert TV channels into the duplex gap, even in unconstrained markets; retain some TV above the gap, so long as they are at least 10Hz away from the next downlink filter.
Alcatel-Lucent, AT&T, Ericsson, Intel, NAB, Qualcomm, and Verizon	Duplex gap for paired spectrum above TV37 between 10MHz and 12 MHz; services can be implemented in the guard bands and duplex gap if they do not create interference; guard bands should not be increased to provide more unlicensed spectrum at the expense of licensed spectrum.
Association of Public Television Stations	Spectrum clearing in low occupancy markets should not exceed major market recovery; selection priority for any displacement of public TV translators.
BCE	Favors open unfettered auction.
BlackBerry Corporation	Support 'down from 51'; concerned about the number of sub-bands; support internationally harmonized bands; maximize spectrum availability.
Bonten Media Group	Support 'joint sale agreements' and 'shared services agreements;' support duopoly relief in small markets; FCC should give them a UHF channel.
Broadcaster for the Promotion of Channel Sharing Arrangements	Allow stations to change license areas within the same Designated Market Area to facilitate channel sharing; create guard bands with at least one channel of unlicensed use within these bands.
C Spire Wireless, Competitive Carriers Association, and COMPTTEL	Support DOJ's recommendations, e.g. restrictions on larger bidders.
CP Communications	Make professional wireless service providers and venues eligible to hold licenses for wireless microphones; improve WhiteSpaces database.
CTIA-The Wireless Association	Support plan to make spectrum above ch37 available in 5MHz blocks, with a consistent nation-wide downlink band; facilitate channel sharing as an alternative for broadcast stations.
Civic Affairs TV Network	Need for a 'civic broadcast station set-aside' in the post repack of stations.
Colorado Broadcasters Association	Consider local area conditions before reallocating spectrum away from TV; don't make decisions based on national plans alone.
Communications Workers of America	Oppose restrictions on bidding; don't establish different rules for different bidders.
Competitive Carriers Association	Support DOJ's recommendations, e.g. restrictions on larger bidders.
Consumer Electronics Association	Principles: DF51 with Frequency Division Duplexing (FDD), uplink band at the top adjacent to 700MHz uplink block, eliminating the need for guard bands.

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Corporation for Public Broadcasting	Make sure the auctions preserve and protect public TV.
DISH Network Corporation	Adopt D51 with supplemental downlink (SDL); supports designating paired common-uplink and downlink blocks; include paired options in all markets.
East Kentucky Network	Supports Cellular Market Areas, not larger geographic areas.
Ericsson	Suggest a combination of Paired and SDL; maximize paired spectrum while allocating the remainder to SDL.
Expanding Opportunities for Broadcasters Coalition	Allow all wireless carriers to participate in the forward auction; adopt the 'descending clock' auction format; no unnecessary barriers to payments; do not restrict AT&T or Verizon.
Free Press	Establish a guard band or duplex gap with 20MHz for unlicensed use in every market; support more unlicensed spectrum availability.
Free Press, IPR, UCC, NHMC, Common Cause	Consider ownership factors, such as minority ownership; concern of the impact of relaxing cross-ownership rules on diverse communities.
Google	Adopt DF51; create guard bands and a duplex gap; permit unlicensed use in the band and the gap.
Gregory MacDonald	Urges the FCC to restrict repacking during the auction to the role of ensuring that the auction yields nationwide bands of spectrum, rather than attempting to turn repacking into a reallocation exercise that ends up most negatively impacting rural and western states.
Intel	Supports DF51; flexible configurations (paired nationwide channels and duplex gap; contiguous in 38-51 range; TV and guard band or additional mobile channels).
KRBK	Request interference protection for their distributed transmission systems; preserve in the event of repacking.
LIN Television	Support making flexible use waivers available to broadcasters on request; replace monetary compensation from the Broadcaster Relocation Fund.
LocusPoint Networks	FCC should: reallocate 120MHz from broadcast to wireless use; rely on market forces to establish clearing price.
MMTC	Consider race-neutral proposals; work with DOJ to consider impact on underserved populations in merger impacts.
McBride Spectrum Partners	Restore inter-operability to the lower 700 MHz band; FCC should rule and enforce interoperability across all 600 and 700 MHz bands.
MetroPCS Communications	Urged FCC to act promptly on its waiver request regarding a lower 700 MHz block license covering Boston-Worcester-Lawrence-Lowell-Brockton.

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Microsoft	FCC should permit unlicensed operations in the two channels currently reserved for wireless microphones and in Channel37, and FCC should permit unlicensed operations in portions of the post-auction 600 MHz band where auction winners have not yet built out networks.
Mobile Future	Advancing spectrum incentive auctions and rules in a timely manner to free underused broadcast spectrum for wireless use; continuing FCC efforts to aid in the process of reallocating excess government spectrum for commercial mobile broadband services.
NBC Television Affiliates	It is essential that there be a transparent process for accomplishing a spectrum auction and repacking, and FCC needs to engage with broadcast engineers to ensure that the public's television service is preserved, as it did in the DTV transition.
National Association of Black Owned Broadcasters	FCC should include specific policies in the auction process that encourage minority licensees to retain all or a portion of their spectrum.
National Association of Broadcasters (NAB)	(1) Need for transparency and rigorous review of FCC's repacking methodology; (2) the engineering challenges present in the proposed post-auction 600 MHz band plan; and (3) the role of the TV Broadcaster Relocation Fund in the auction and the timing of the disbursement of funds.
New Mexico Broadcasters	FCC should preserve television translators in providing free over-the-air television services to a substantial number of rural communities, including Native American pueblos and Indian reservations, throughout New Mexico.
Cellcom	Urges FCC to adopt smaller geographic license areas for all upcoming FCC spectrum auctions, and particularly for the incentive auction of 600 MHz spectrum.
Newsgathering Organizations	Urges FCC to preserve the two channels set aside for wireless microphone use in each market to continue to provide Americans with a public service.
NorthwestCell	Urges FCC to license the 600 MHz band on the basis of Cellular Market Areas ("CMAs"). Licensing the 600 MHz band on the basis of CMAs will allow for broad participation in the incentive auction by wireless carriers and broadcasters.
PISC	FCC must clarify the role of caps, and how they impact accessibility and the Internet ecosystem generally.
Representative Paul Gosar	Ensure that FCC evaluate and minimize any harm to television translators as a result of the auction and repacking processes.
Peter K. Pitsch	Recommends the variable band plan approach as a means of maximizing the amount of licensed spectrum made available through an incentive auction process.
Plateau Telecommunications	Urges FCC to license the 600 MHz band on the basis of Cellular Market Areas ("CMAs"); licensing the 600 MHz band on the basis of CMAs will allow for broad participation in the incentive auction by wireless carriers and broadcasters.

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Public Knowledge	Claims there is no “consensus” to adopt the “Down from 51” plan favored by AT&T, Verizon and NAB. Claims all the plans proposed present technical challenges that have significant potential impacts on wireless competition and on the ultimate success of the auction.
Public Service Wireless Services	Auctioning spectrum on the basis of CMAs will allow for broad participation in the auctions. This will foster innovation and competition, maximize auction revenues, and promote the deployment of services.
Robert M. McKenna	Support DOJ's recommendations, e.g. restrictions on larger bidders.
Rural Telecommunications Group	FCC should apply strict standards to the review of the purchase, or impose certain conditions on AT&T. RTG believes that competitive harms are the direct byproduct of excessive spectrum concentration.
Sandhill	Urges FCC to award spectrum in upcoming auctions, particularly the incentive auction of 600 MHz band spectrum, on the basis of Cellular Market Areas (“CMAs”).
Senator Barbara Boxer	Concerned that women, ethnic, and racial minorities are underrepresented in ownership of broadcast radio and television stations and that relaxing the FCC's cross-ownership rules would only reduce minority ownership.
Shure	Continued access to clean, interference-free UHF spectrum must be preserved even as FCC implements incentive auctions and repacking in an effort to expand spectrum available for wireless broadband services.
Shure, ESPN	Emphasize the critical importance of wireless microphones and complementary systems to the production of televised sporting events, and the extensive use of radiofrequency spectrum for wireless microphones.
Sinclair Broadcast Group	Reiterated that a broad interpretation of the flexible use waiver provision is consistent with the broad purposes of the Spectrum Act; waivers benefit the public by bringing advanced services to the public as Congress intended.
Sprint	Restrictions on the amount of sub-1 GHz spectrum operators can acquire at auction have not resulted in any reduction in auction revenue in the myriad European nations that have adopted them.
T-Mobile	Proposed a one-third limit on the amount of below-1 GHz spectrum any one carrier can acquire with an exception to ensure that all carriers would be allowed to win a minimum of 5x5 MHz in all markets. Under the “Dynamic Market Rule,” FCC could gradually relax the limits if auction revenues are insufficient to meet the clearing target.
T-Mobile and Verizon	Urge FCC to adopt a “down from channel 51” band plan for the 600 MHz incentive auction; agree the plan will best enable the wireless industry to meet the public's burgeoning demand for mobile broadband services.

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The WMTS Coalition	FCC could structure and administer the flexible use waivers Congress encouraged the FCC to implement in Section 6402(b)(4)(B) of the Spectrum Act.
Disney	Urges FCC to retain sufficient spectrum for use by licensed wireless microphone systems given the extensive and widespread use of wireless microphones every day to cover news and sports by broadcasters.
Transmit Consultancy	Maximize the benefit to the public by meeting the spectrum goals in a timely manner; minimize any disruptive impact on the TV-viewing public and harm to broadcasters; reduce relocation costs through efficient management.
VTel Wireless	FCC should license the 600 MHz band on the basis of CMAs, which represent the most manageable geographic area for small carriers.
Verizon	Supports the FCC's objective of repurposing the maximum amount of broadcast TV spectrum for mobile use; count all of Sprint's 2.5 GHz spectrum in potential "spectrum screen;" cited study finding that limiting auctions could reduce revenue by as much as 45 percent.
Wi-Fi Alliance	Supports the designation of spectrum for unlicensed operations in the 600 MHz band.
Wireless Internet Service Providers Association	Unlicensed use should be permitted to continue in areas where 600 MHz licenses were not actually providing service.
Writers Guild of America, America West	Limit Spectrum Aggregation: FCC's spectrum screen process has failed to promote competition. This process does not account for qualitative differences in spectrum, which has allowed AT&T and Verizon to acquire much of the most valuable lower frequency spectrum.