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May 4, 2018

VIA ELECTRONIC SUBMISSION

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

Re: *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, GN Docket
No. 14-177

Dear Ms. Dortch:

On May 2nd, 2018, Joan Marsh and the undersigned, on behalf of AT&T, met separately with Rachael Bender, Wireless and International Advisor to Chairman Pai, and with Erin McGrath, Legal Advisor to Commissioner O’Rielly. During the meetings we discussed AT&T’s proposal to accelerate 5G deployments by permitting 39 GHz licensees to temporarily repack their holdings into contiguous channels. Such temporary arrangements would terminate upon completion of a permanent rebanding, whether by auction or through secondary market transactions. We shared with Ms. Bender and Ms. McGrath copies of the attached ex parte filings, which were made on April 9th, 2018 and May 1st, 2018.

Please do not hesitate to contact me should you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Henry G. Hultquist".

Henry G. Hultquist

AT&T



Michael P. Goggin
Assistant Vice President -
Senior Legal Counsel

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May 1, 2018

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth St, SW
Washington, D.C. 20554

Re: *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, GN Docket
No. 14-177

Dear Ms. Dortch:

On April 27, 2018, Hank Hultquist, Stacey Black, Jessica Lyons and Michael Goggin of AT&T met via teleconference with Joel Taubenblatt, Blaise Scinto, Jennifer Tomchin, John Schauble, Erik Salovaara, Doug Klein, Simon Banyai, Elliot Maenner, Martha Stancill and Margie Weiner of the Wireless Bureau, and David Horowitz of the Office of General Counsel regarding the Spectrum Frontiers matter referenced above. The purpose of the meeting was to discuss further the AT&T's proposal to enable incumbent UMFUS licensees to immediately deploy 5G services in the band by temporarily assigning contiguous channels to licensees in the 37.6-40 GHz band on a voluntary basis, pending a subsequent auction and "repacking" of incumbents.

While the FCC has indicated that it will auction the remainder of the 28 GHz band starting in 2018, and the 24 GHz band in 2019, there currently is no schedule for an auction of the 37.6-40.0 GHz band, or for a permanent repack of the incumbent licensees. Presently, incumbent licensees hold authorizations for paired spectrum, in 50 MHz channels, less than the minimum 100 MHz channels incorporated into the 5G standards for deployment in the millimeter wave ("mmW"). Rather than allow this band to lie fallow, until an auction is planned and permanent spectrum assignments can be made, the Commission could ensure that the band is used for 5G deployments before the end of 2018, through a voluntary, temporary rearrangement of frequency assignments to create contiguous channels greater than 50 MHz. This would help achieve the FCC's stated policy objectives--to maintain U.S. leadership in mobile broadband technology, and to put this band to use for that purpose as early as possible. Moreover, the temporary reassignments would immediately terminate upon a permanent reassignment of licensed frequencies following a permanent repack, whether that should occur as a result of secondary market transactions or through an auction. Thus, this voluntary, temporary arrangement, while facilitating the immediate use of the band by incumbents for 5G deployment, would not prejudice other incumbents or a subsequent auction or permanent repack.

In particular, AT&T requests that the FCC promptly issue Special Temporary Authorizations ("STAs") to allow existing 38.6-40.0 GHz licensees to utilize, upon request and on a temporary, non-preclusive basis, equivalent but contiguous 37.6-40.0 GHz spectrum in lieu of their currently

authorized, but heavily balkanized, spectrum in the 38.6-40.0 GHz band. The 37.6-40.0 GHz band is presently under consideration in the FCC's *Spectrum Frontiers* proceeding,¹ where the Commission is developing regulations for the auction and repacking of the band.

AT&T's request will not affect any rights or equities with respect to a future auction or the FCC's ongoing rulemaking, nor is the proposal prejudicial to any other incumbent licensees in the band:

- The temporary reassignments would allow rapid deployment of 5G services by incumbent licensees, rather than delaying such deployment until after an auction that to date has not been scheduled.
- STAs would be conditioned on incumbent licensees receiving temporary authorizations only for the same amount of spectrum, covering the exact geographies, as their current licenses in a given PEA.
- STAs would be conditioned on waiving an incumbent licensee's right to exclude others from using spectrum covered by its permanent licenses, freeing this spectrum for temporary assignment to others seeking temporary assignment of contiguous frequencies.
- The temporary reassignments would automatically terminate upon the grant of permanent authorizations, whether through a permanent repack or through an auction of the band.² Because the UMFUS rules require equipment that is interoperable across the entire 37.6-40.0 GHz band, 5G deployments enabled by such temporary assignments could be rapidly and remotely retuned to new frequencies following an auction or permanent repack, or even to accommodate changes in temporarily assigned frequencies in advance of a future auction, if necessary.
- The temporary assignments would not increase or decrease any incumbent's auction or repacking rights.
- The process is voluntary—no incumbent would be required to be temporarily reassigned to frequencies other than their licensed frequencies.

¹ See, *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, 31 FCC Rcd 8014 (2016); *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Second Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 10988 (2017).

² Because the rights are temporary only, an STA appears to be the most appropriate licensing mechanism to effectuate a temporary repack. The STA's could be issued by the Bureau on delegated authority pending a permanent repack ordered by the Commission at some future date, as contemplated in the FCC's *Spectrum Frontiers* R&O. When the contemplated auction of this band occurs at some time in the future, the Commission would accept mutually exclusive applications for licenses, but the STA applications would be for temporary assignments only, not licenses, accepted only from current licensees in the band who agree to temporarily vacate their licensed frequencies on a one to one basis, and would not be mutually exclusive, as ample open spectrum exists to accommodate all current licensees with temporary contiguous assignments. See 47 USC 309(j)(1), (6)(E).

- There is sufficient spectrum in the 37.6-40 GHz range to temporarily reassign contiguous spectrum to all incumbent licensees pending a future auction or permanent repack.
- To avoid delaying 5G deployment, the Bureau should accept and consider such STA requests from incumbent licensees on a first-come, first-served basis, allowing those willing to deploy immediately to do so. There is sufficient spectrum in the band to allow incumbents who are not planning to deploy 5G prior to the auction to stay in their assigned frequencies while those willing to deploy 5G move to temporary spectrum assignments prior to an eventual auction³.

The STA process we propose would facilitate the rapid deployment of 5G services in the 37.6-40.0 GHz band by permitting use of contiguous spectrum, rather than the narrowly channelized, haphazard assignments that currently exist, without any harm or preclusive effect to any other licensee or future auction participant. Because the early deployment of 5G is in the public interest, and because no parties will be harmed or prejudiced by this temporary rearrangement of rights, AT&T urges the FCC to swiftly approve the use of STAs pursuant to this request. Should any questions arise concerning this correspondence, please contact me.

Respectfully submitted,

/s/ Michael P. Goggin

cc: Joel Taubenblatt
Blaise Scinto
Jennifer Tomchin
John Schauble
Erik Salovaara
Doug Klein
Simon Banyai
Elliot Maenner
Martha Stancill
Margie Weiner

³ Considering STAs on a first-come, first-served basis will allow for immediate deployment by those willing and able to do so. AT&T nonetheless suggests that any STAs be subject to continuing good faith coordination requirements that would require STA licensees to cooperate with other licensees' temporary repacking needs, including, if necessary, modifying their STAs. In this manner, no STA would be mutually exclusive with rights sought by any other incumbent in the band, regardless of whether and when such other licensees elect to pursue their own STAs.

For assistance with using ECFS, please contact the ECFS Help Desk at 202-418-0193 (tel:+12024180193) or via email at ECFSHelp@fcc.gov (mailto:ECFSHelp@fcc.gov).

Submit a Filing

1 **Filing** 2 **Review** 3 **Confirmation**

Proceeding:	14-177
Confirmation #:	20180501295024188
Submitted:	May 1, 2018 2:30:53 PM
Status:	RECEIVED
Name(s) of Filer(s)	AT&T Services
Law Firm(s)	
Attorney/Author Name(s)	Michael P. Goggin
Primary Contact Email	sp6591@att.com
Type of Filing	LETTER
File Number	
Report Number	
Bureau ID Number	
Address of	Filer
Address	1120 20th Street, NW Suite 1000, Washington, DC, 20036
Email Confirmation	Yes

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Federal Communications Commission
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April 9, 2018

EX PARTE VIA ELECTRONIC FILING

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

Re: *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177;
IB Docket No. 15-256; WT Docket No. 10-112; IB Docket No. 97-95.

Dear Ms. Dortch:

AT&T Services, Inc., on behalf of the subsidiaries and affiliates of AT&T Inc. (collectively, "AT&T"), submits this letter to memorialize a meeting regarding the above-referenced proceedings on April 5, 2015 between Hank Hultquist, Terry Chevalier (by phone), Michael Goggin, Stacey Black, Jessica Lyons, and the undersigned of AT&T and Don Stockdale, Matthew Pearl, Joel Taubenblatt, Blaise Scinto, Simon Banyai, John Schauble, Erik Salovaara, Martha Stancill, Anthony Petrone, Meaghan Ryan, and Jennifer Tomchin (by phone) of the Federal Communications Commission's ("Commission" or "FCC") Wireless Telecommunications Bureau and David Horowitz and Doug Klein of the FCC's Office of General Counsel.

The parties discussed AT&T's proposal for the Commission to temporarily and voluntarily repack incumbents with spectrum holdings in the 38.6 GHz-40 GHz band in a manner that would expedite use of spectrum in the 37.6-40.0 GHz band for the provision of 5G services, without harming the interests of any incumbents or of any potential bidders in any future auction of spectrum in the 37.6-40 GHz band. The discussion followed the material attached to this letter, with special emphasis on the facts that, under AT&T's proposal (i) the temporary repack would end immediately upon completion of a post-auction repack, and (ii) the procedural mechanism suggested is a special temporary authority ("STA") for commercial operations in identified geographic areas, with any conditions deemed necessary to ensure prompt, interference-free, and appropriately time-limited performance in the STA-designated spectrum.

Pursuant to the Commission's rules, a copy of this letter and its attachment are being filed electronically in the above-referenced dockets. Please do not hesitate to call me if you have questions.

Sincerely,

/s/ Alex Starr

Attachment

37.6 to 40.0 GHz Temporary Repack

Proposed Approach

April 5, 2018

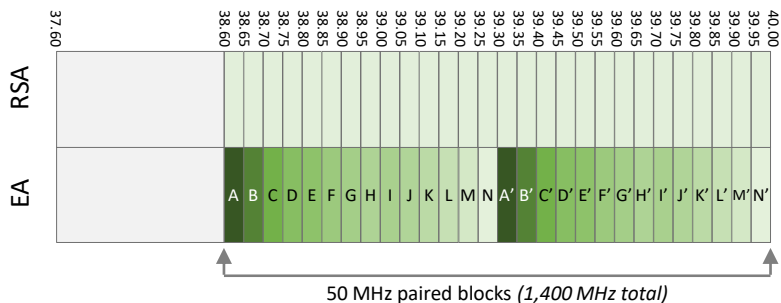
Topics

- 1 Background on the 37.6 to 40.0 GHz band
- 2 Key Principles in a Temporary Repacking
- 3 Proposed Approach to Support Temporary Repack in Sample Markets
- 4 Key considerations and next steps

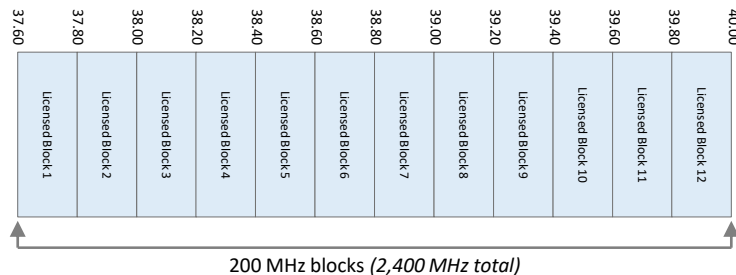
37.6 to 40.0 GHz Temporary Repack

Need for a temporary repack

Current: Rectangular Service Area (RSA) and Economic Area (EA) Band Plan



Target: Partial Economic Area (PEA) Band Plan

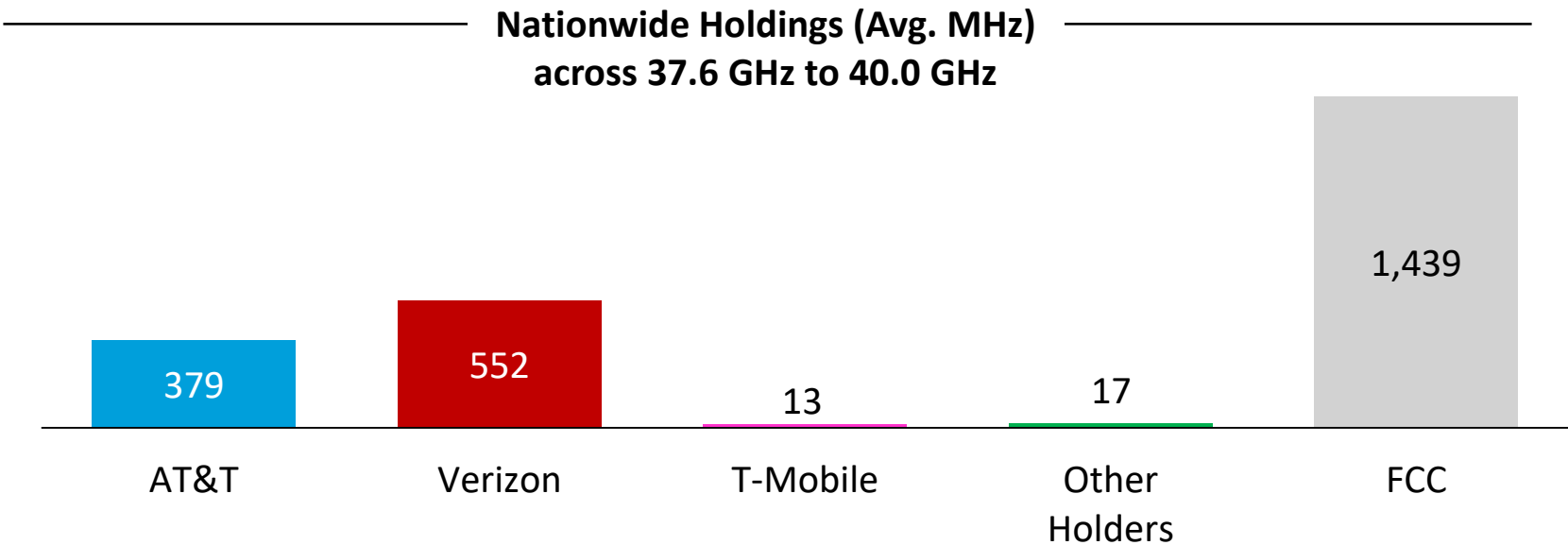


- Current band plan is **complex** with **multiple license boundaries and holders**, even over the same geographic area
- Auction with **separate assignment round** maximizes potential for contiguity across the entire band in a **faster and fairer** manner to advance the delivery of 5G services for the U.S.
- **Prior to auction, a temporary repack solution is required** to create **larger, contiguous blocks** to support rapid 5G deployments

1

37.6 to 40.0 GHz Temporary Repack

Current incumbents and average nationwide holdings



Source: FCC ULS (as of March 2018); 2017 population estimates (Claritas) used to calculate average nationwide MHz holdings

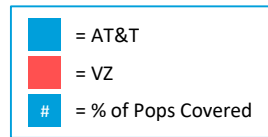


37.6 to 40.0 GHz Temporary Repack

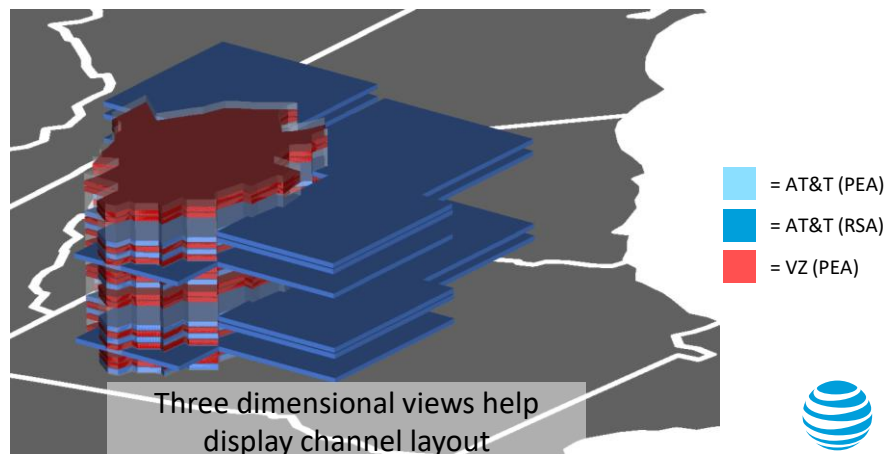
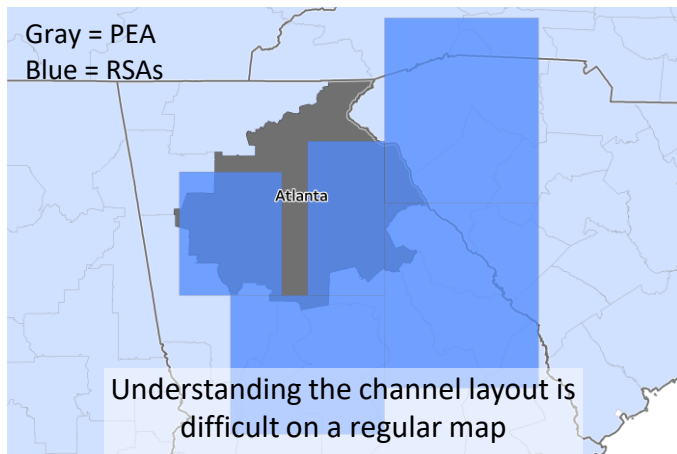
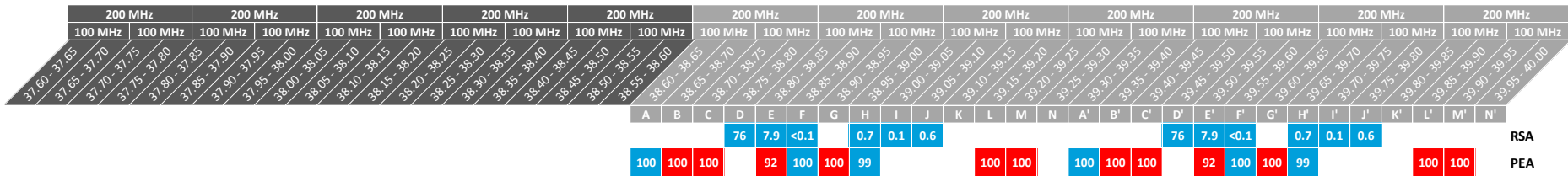
Key Principles in a Temporary Repack

Objective of Temporary Repack: Repack current holdings to achieve a contiguous position in the 37.6 to 40.0 GHz range for incumbents who wish to launch 5G or other upper microwave flexible use services (UMFUS)

	Principles
Incumbent rights	<ul style="list-style-type: none"> • Repack limited to incumbents only and voluntary in nature • All incumbents should have the ability to obtain contiguous holdings if they desire • Method will allow for commercial launches in repacked spectrum • Federal use coordination, if needed, will be executed by the incumbent wishing to repack
Duration	<ul style="list-style-type: none"> • Exists only until the post-auction repack occurs; free market-based auction determines final assignments of any current and new holders • Possible performance requirement for commercial signal on air prior to end of initial STA • A simple renewal mechanism should be enacted after meeting performance requirement
Repack constraints	<ul style="list-style-type: none"> • Utilizes entire 37.6 to 40.0 GHz band to improve efficiency of use • Repacks paired 50 MHz channels into 100 MHz blocks to align with current standards • Repack no more than existing holdings • RSA boundaries should be preserved to maintain status quo



Example: Repacking AT&T in Atlanta



3

37.6 to 40.0 GHz Temporary Repack

Proposed approach: Determine RSA treatment

General types of PEA/RSA configurations

No RSAs overlap the PEA



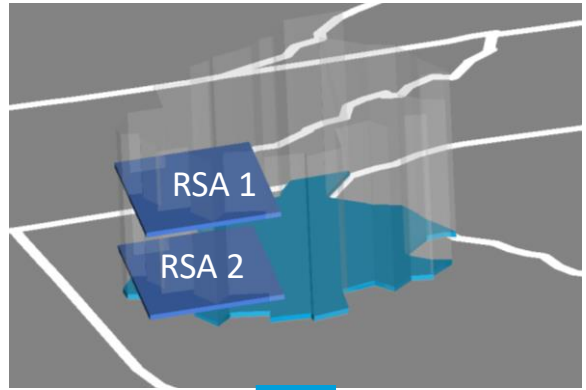
Channels* prior to Repack: 1
Channel after Repack: 1 (no RSA impact)

RSAs non-overlapping over the PEA



Channels prior to Repack: 2
Channels after Repack: 1

RSAs overlapping over the PEA



Channels prior to Repack: 2
Channels after Repack: 2

* Channel = 50 MHz

3

3

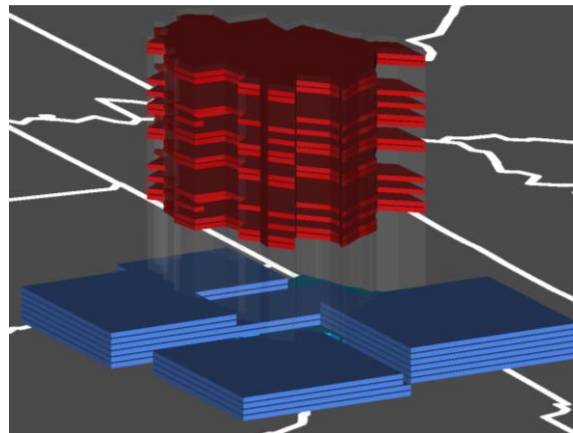
3

3

3

3

200 MHz		
100 MHz	100 MHz	100



37.6 to 40.0 GHz Temporary Repack

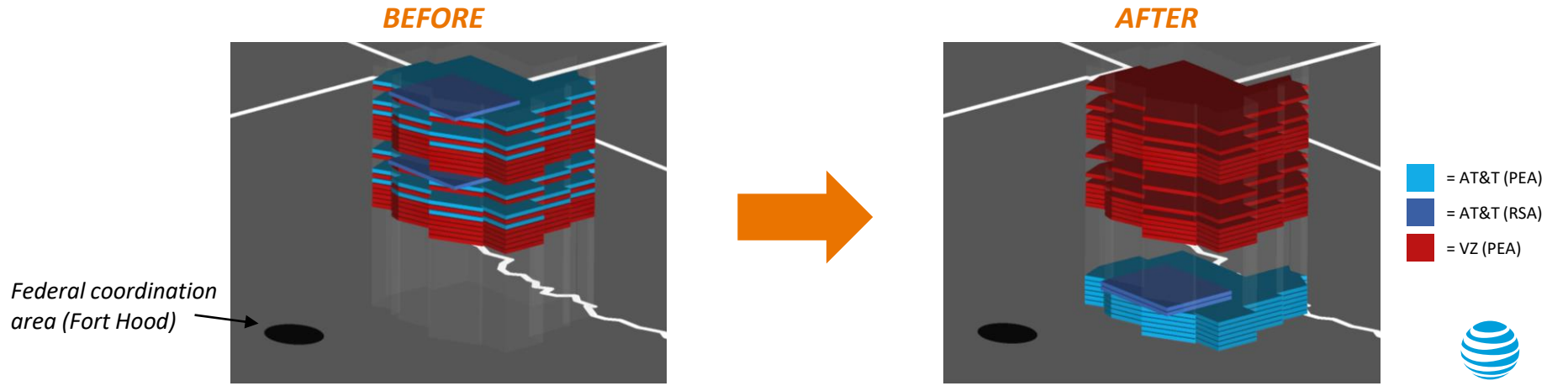
Sample results: Dallas

= AT&T

= VZ

#

 = % of Pops Covered



= AT&T (PEA)

= AT&T (RSA)

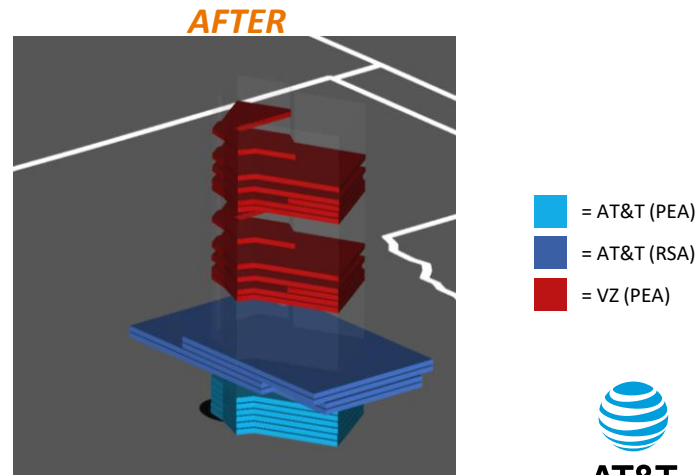
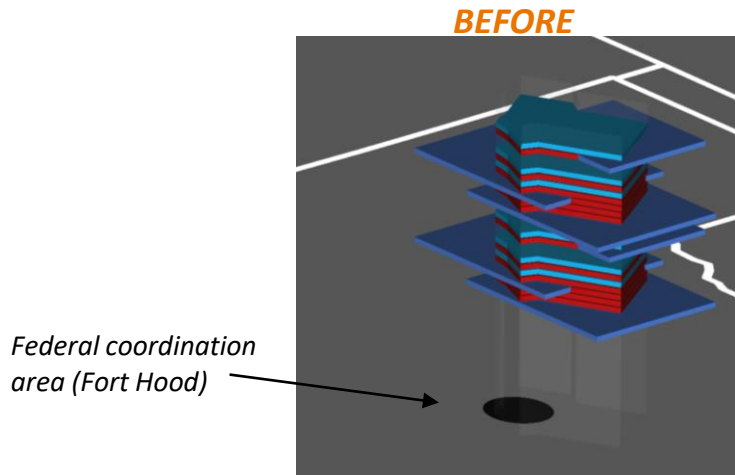
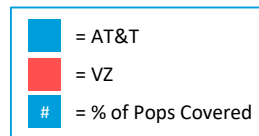
= VZ (PEA)



37.6 to 40.0 GHz Temporary Repack

Sample results: Waco

Sample results: Waco



37.6 to 40.0 GHz Temporary Repack

Incumbent situations vary by market

Category of Licensees	AT&T + VZW (+FCC)	AT&T + VZW + TMO (+ FCC)	Multiple Licensees (+FCC)
# of PEA areas	349	6	60
% of total area	84%	1%	14%
% of nationwide population	66%	9%	25%

Source: FCC ULS (as of March 2018); 2017 population estimates (Claritas)



37.6 to 40.0 GHz Temporary Repack

Summary and considerations

- Compresses incumbent holdings to minimize impact for later incumbents wishing to also repack
- Process repeatable for the next incumbent
- Initial and later authorizations could be tied to a performance metric during the temporary repack period
- Implemented through use of special temporary authority (STA) requesting an equivalent amount of spectrum based on repack that will support commercial deployments
- Recommend implementing on a “first-come, first-served” basis



Submit a Filing

1
FILING

2
REVIEW

3
CONFIRMATION

Proceeding: 14-177, 15-256, 10-112, 97-95

Confirmation #: 2018040954180077

Submitted: Apr 9, 2018 2:51:37 PM

Status: RECEIVED

Name(s) of Filer(s) AT&T Services, Inc.

Law Firm(s)

Attorney/Author Name(s) Alex Starr

Primary Contact Email lh8695@att.com

Type of Filing NOTICE OF EXPARTE

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