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By Electronic Filing

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

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

Fourth Progress Report on AT&T Commitments

Dear Ms. Dortch:

On October 25, 2013 the FCC adopted a Report and Order in the matter of “Promoting Interoperability in the 700MHz Commercial Spectrum”. As part of this order, AT&T is required to provide a periodic written report and meet with the Commission staff to demonstrate progress made toward the commitments outlined in the its September 10, 2013 commitment letter. Attachment 1 summarizes the commitments made by AT&T and the progress toward these commitments as part of its fourth progress report.

In accordance with the Commission’s rules, this letter is being filed in the above referenced dockets via the FCC’s Electronic Comments Filing System.

Should you have any questions regarding the above, please feel free to contact me directly

Sincerely,

/s/ Joseph P. Marx

Attachments



Attachment 1: AT&T Commitments on 700MHz Interoperability Report of Progress as of January 10, 2016

At this point, it is incontrovertible that the FCC's goal of promoting interoperability in the Lower 700MHz spectrum by creating a robust Band 12 ecosystem has been accomplished. In addition to the near universal availability of Band 12 devices for smaller carriers, AT&T has fully deployed the Multi-Feature Band Indicator (MFBI) functionality, which is a precursor to support Voice over LTE (VoLTE) Roaming on AT&T's network. In addition, US Cellular has already begun to rolling out VoLTE Roaming¹ on their network.

In the 28 months since the Order was adopted, carriers have increasingly deployed 700 MHz A block networks that rely on Band 12 devices. More specifically, T-Mobile has aggressively rolled out Extended Range LTE on low-band 700MHz A-Block spectrum, which is now live in over 300 markets covering 185 million Americans². In addition, US Cellular through its partner King Street Wireless has enabled LTE on 700MHz Band 12 in over 100 markets nationwide.³ And per an article in Fierce Wireless, Neville Ray (CTO of T-Mobile) said "his goal is to have 50 percent of the company's subscriber base on a device that supports 700 MHz spectrum by the end of the year, which he said will improve coverage and in-building performance for customers. T-Mobile executives said they expected the continued deployment of 700 MHz spectrum to improve network performance and lead to lower churn."⁴

Also, in the 2 years since the Report and Order has been released. AT&T has fully deployed the Multiple Frequency Band Indicator (MFBI) feature allowing it to broadcast both Band 17 and Band 12 in the Lower 700MHz spectrum throughout its network.

As a result of these activities, the handset ecosystem for Band 12 devices continues to explode. Starting this year, T-Mobile plans to support LTE Band 12 in all LTE capable phones (Q3 2014 earnings call transcript⁵). Given the broad array of Band 12 devices available as listed below, there can be no remaining argument that a robust ecosystem for Band 12 devices is lagging as such devices are now readily available to any carrier seeking them.

Below is a list of devices identified to date that are compatible with 700 MHz A block spectrum

Phones

- Samsung Galaxy Note 4 SM-N910T
- Samsung Galaxy Note Edge SM-N915T
- Motorola Nexus 6 XT1103
- Samsung Galaxy S6 Edge SM-G925T

¹ See <http://www.fiercewireless.com/story/us-cellular-completes-lte-buildout-and-begins-lte-roaming-q4-performance-be/2016-02-19>

² <https://newsroom.t-mobile.com/news/t-mobile-adds-over-8-million-customers-for-second-consecutive-year.htm>

³ See <http://www.kingstreetwireless.com/>

⁴ See http://www.fiercewireless.com/story/t-mobile-all-band-12-lte-devices-our-network-must-support-volte-e911/2015-08-28?utm_medium=nl&utm_source=internal

⁵ See <http://seekingalpha.com/article/2606715-t-mobile-uss-tmus-ceo-john-legere-on-q3-2014-results-earnings-call-transcript?part=single>



- Samsung Galaxy S6 SM-G920T
- HTC One M9 for T-Mobile
- Alcatel OneTouch Pop Astro 5042T
- Samsung Galaxy Avant SM-G386T (band 12 enabled with May 2015 software update)
- LG G Stylo H631
- LG Leon H345
- LG G4 H811
- Sony Xperia Z3 D6616 (band 12 enabled with June 2015 software update)
- Microsoft Lumia 640 RM-1073
- HTC Desire 626s for T-Mobile and MetroPCS (specs)
- Samsung Galaxy Grand Prime SM-G530T
- Samsung Galaxy Core Prime SM-G360T
- Kyocera Hydro Wave C6740
- ZTE Obsidian Z820
- Samsung Galaxy Note 5 SM-N920T
- Samsung Galaxy S6 Edge Plus SM-G928T
- ZTE ZMax Z970 (band 12 enabled with September 2015 software update)
- iPhone 6s A1688
- iPhone 6s Plus A1687
- LG V10 H901
- Blackberry Priv
- ZTE Avid Plus Z828
- Alcatel OneTouch Fierce XL 5054N for MetroPCS
- LG K7 K330
- Alcatel OneTouch Fierce XL with Windows 10

Tablets

- Samsung Galaxy Tab 4 8.0 SM-T337T
- Samsung Galaxy Tab S 10.5 SM-T807T
- LG G Pad F 8.0 V496
- Alcatel OneTouch Pixi 7 9006W
- Samsung Galaxy Tab A 8.0 SM-T357T
- Samsung Galaxy Tab S2 SM-T817T

Hotspots

- ZTE Z915 MF915
- ZTE Falcon Z-917



As to AT&T's specific commitments, we report as follows:

- 1) AT&T commits to moving forward expeditiously with testing the 3GPP Multi-Frequency Band Indicator software feature as soon as it is made available to AT&T by its RAN vendors. AT&T further agrees to fully deploy the new MFBI software feature in its 700 MHz network within 24 months of September 30, 2013. The end of the 24-month period will also commence the beginning of the device roll-out period.

*Status Update:
Complete.*

- 2) Once MFBI has been fully implemented by AT&T consistent with paragraph 2, AT&T shall provide LTE roaming to carriers with compatible Band 12 devices, consistent with the Commission's rules on roaming.

*Status Update:
To date, none of the Band 12 operators that we have been discussing VoLTE Roaming with are technically ready to begin interoperability testing. Nonetheless, we continue to stay aligned technically with these operators and are working through multiple issues associated with support of voice because of a lack of support for Circuit Switch Fallback capability.*

The Transition

- 3) During the first year of the device roll-out period, 50% of all new unique devices that operate on the paired Lower 700 MHz bands, as identified by unique SKU numbers, introduced by AT&T into its device portfolio will be Band 12 capable devices. Memory or color finish variations on a single device shall not be considered separate unique SKUs. Machine-to-Machine (M-to-M) devices shall not be counted as "new unique devices" for purposes of this commitment.

Status Update: As of January 10th, 64% of the devices that operate on AT&T's paired Lower 700MHz bands are Band 12 capable devices surpassing the requirement established for September 10, 2016.

- 4) During the second year of the device roll-out period, 75% of new unique devices that operate on the paired Lower 700 MHz bands, as identified by unique SKU numbers, introduced by AT&T into its device portfolio will be Band 12 capable devices. Memory or color finish variations on a single device shall not be considered separate unique SKUs. M-to-M devices shall not be counted as "new unique devices" for purposes of this

⁶ Because prior reports were due to be filed on March 10 of each year, we mistakenly planned to submit this report on that date as well. Further review of our commitments indicated that the first report on device compliance was due January 10. We are therefore reporting on our progress on the device commitment as of January 10. For clarity, we indicate below the dates on which we will file subsequent reports.



commitment.

Status Update:

Report to be filed on January 10th, 2017.

- 5) Commencing at the conclusion of the second year of the device roll-out period, all new unique devices that operate on the paired Lower 700 MHz bands introduced by AT&T into its device portfolio will be Band 12 capable devices. In addition, from that time forward, AT&T will agree that its specifications for all new devices that are designed to operate in the paired Lower 700 MHz frequencies, including M-to-M devices, will call for Band 12 capability. However, M-to-M devices shall not be counted as “new unique devices” for purposes of this commitment.

Status Update:

Report to be filed on July 10th, 2017

- 6) To demonstrate progress on its commitments, AT&T shall submit comprehensive written reports and meet with the Commission staff at each of 12 months, 18 months and 24 months from the date of its September 10, 2013 commitment letter that will provide information on AT&T’s progress toward meeting these commitments. Additionally, AT&T shall provide comprehensive written reports at 28 months, 40 months and 46 months to report on progress during the device roll-out period, and it shall file a certification to the Commission at the end of the device roll-out period to certify final completion of these commitments within 30 days.

Status Update:

This is the fourth report.

- 7) Consistent with these commitments, AT&T anticipates that its focus and advocacy within the 3GPP standards setting process will shift to Band 12 related projects and work streams. More specifically, upon adoption of this commitment, AT&T commits to placing priority within the 3GPP RAN committee on the development of various Band 12 carrier aggregation scenarios. Upon completing implementation of the MFBI feature, AT&T anticipates that its focus on new standards related to the paired Lower 700 MHz spectrum will be almost exclusively on Band 12 configurations, features and capabilities. AT&T reserves the right to seek revisions and updates to Band 17 standards to the extent necessary to support legacy Band 17 devices and continuing Band 17 functionality on its network.

Status Update:

Complete