

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Wireless Telecommunications Bureau Seeks	)	WT Docket No. 19-272
Comment on Pivotal Commware Request for	)	
Waiver of Industrial Signal Booster Labelling	)	
Rules	)	

**REPLY COMMENTS OF AT&T SERVICES, INC.**

AT&T Services, Inc., on behalf of its affiliates, (“AT&T”) hereby submits these reply comments in response to Pivotal Commware’s (“Pivotal”) Request for Waiver (“Petition”) of the Industrial Signal Booster labelling rules set forth in Section 20.21(f). Pivotal seeks this waiver to support the launch of its Echo 5G Subscriber device (“Echo”), which Pivotal describes as a “low-cost mass-market solution to bringing super-fast broadband to households and small businesses using millimeter wave spectrum.”<sup>1</sup> Based on the content of Pivotal’s Petition, AT&T agrees with T-Mobile that Pivotal’s device is akin to a Consumer Signal Booster, and as such should be subject to the labeling requirements for Consumer Signal Boosters at a minimum. Further, if the Commission grants Pivotal’s Petition – or similar petitions that may be filed in the future – the Commission should also impose conditions that will ensure the Echo and similar devices do not cause interference to licensed wireless networks.

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<sup>1</sup> Pivotal Commware Request for Waiver of Section 20.21(f), WT Docket No. 19-272, at 1 (Sept. 16, 2019) (“Petition”).

**I. PIVOTAL’S DEVICE IS ESSENTIALLY A CONSUMER SIGNAL BOOSTER AND CONSUMER SIGNAL BOOSTER LABELING REQUIREMENTS SHOULD APPLY TO IT AT A MINIMUM.**

AT&T agrees with T-Mobile that the Echo more closely resembles a Consumer Signal Booster than an Industrial Signal Booster, and therefore should be subject to the labeling requirements for such devices instead of being exempt from labeling requirements altogether. When the FCC adopted its regulatory framework for signal boosters, it created two classes of devices: Consumer Signal Boosters and Industrial Signal Boosters. Consumer Signal Boosters are designed to be used “out of the box,” are limited to operation in particular frequency bands, and are required to comply with the Commission’s Network Protection Standard, among other requirements.<sup>2</sup> Industrial Signal Boosters have fewer technical restrictions, but are subject to stricter requirements regarding labelling, marketing, and installation.<sup>3</sup>

AT&T believes that Pivotal classified the Echo as an Industrial Signal Booster out of necessity because the Commission’s existing rules for Consumer Signal Boosters do not permit their operation in millimeter wave spectrum.<sup>4</sup> Further, parties have indicated that the existing Network Protection Standard is inapplicable to higher frequency bands and would likely require modification if Consumer Signal Boosters were authorized in millimeter wave bands.<sup>5</sup> Thus, rather than wait for such regulatory and standards-based developments to be completed, Pivotal

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<sup>2</sup> 47 C.F.R. § 20.21(a)-(b), (d), (e)-(h). *See also* 47 C.F.R. § 20.3 (defining Consumer Signal Booster as “a bi-directional signal booster that is marketed and sold for use without modification.”).

<sup>3</sup> 47 C.F.R. § 20.21(c)-(d), (f). *See also* 47 C.F.R. § 20.3 (defining Industrial Signal Booster as “all signal boosters other than Consumer Signal Boosters”).

<sup>4</sup> 47 C.F.R. § 20.21(e)(3).

<sup>5</sup> Comments of Verizon, WT Docket No. 10-4, at 4-5 (May 18, 2018).

has chosen to proceed as though its device were an Industrial Signal Booster and request relief from the more onerous restrictions applied to Industrial Signal Boosters.

AT&T agrees with T-Mobile that the Echo has much more in common with a Consumer Signal Booster than an Industrial Signal Booster. The Echo will only be available to licensed wireless carriers, who will in turn sell the Echo to their subscribers.<sup>6</sup> The Echo may be installed by a consumer with no requirement for professional installation, and is designed to operate out of the box.<sup>7</sup> The Echo also is designed to operate “at very low radiated power levels” and is intended to be used in single family residences or small businesses, not larger venues.<sup>8</sup> As T-Mobile notes, all of these facts render the Echo much more similar to a Consumer Signal Booster than an Industrial Signal Booster.<sup>9</sup>

Because the Echo resembles a Consumer Signal Booster in many respects, AT&T agrees with T-Mobile that, at a minimum, Pivotal should be required to comply with the labeling requirements for Consumer Signal Boosters outlined in Section 20.21 of the Commission’s rules.<sup>10</sup> The Commission, therefore, should not grant Pivotal a complete waiver of all labeling requirements. By requiring Pivotal to comply with the labeling requirements for Consumer Signal Boosters, the Commission would ensure that users are aware of the risks and responsibilities of operating such a device. Further, if the Commission grants the Petition it

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<sup>6</sup> Petition at 4.

<sup>7</sup> *Id.* at 2.

<sup>8</sup> *Id.*

<sup>9</sup> Comments of T-Mobile USA, Inc., WT Docket No. 19-272, at 4 (Sept. 30, 2019).

<sup>10</sup> *Id.* at 4-5.

should require Pivotal to comply with the Section 20.21(f) labeling requirements for Consumer Signal Boosters and *not* permit Pivotal to simply use the proposed language provided in the Petition.<sup>11</sup> Pivotal’s proposed language, unlike the Commission-prescribed language, makes no mention of a requirement to cease operating the device immediately upon request from a carrier or the FCC, nor does it provide any warning regarding potential E911 limitations. As such, it is insufficient to ensure interference-free and fully informed operation by consumers.

## **II. THE COMMISSION SHOULD ONLY GRANT THIS AND SIMILAR WAIVERS SUBJECT TO ADDITIONAL CONDITIONS.**

In its Petition, Pivotal cites certain facts which it states minimize the risk that the Echo will cause interference to licensed wireless networks. AT&T agrees that two key facts – that the device will only be available via carriers<sup>12</sup> and that licensed carriers may disable the Echo remotely<sup>13</sup> – will play an important role in protecting millimeter wave networks from harmful interference. Therefore, any grant by the Commission of the Petition should be conditioned on Pivotal only selling the device through carriers and providing a mechanism for remote carrier shutoff. Further, these should be conditions of any similar waiver grant the Commission considers in the future.

As wireless carriers begin to deploy commercial service in millimeter wave bands, AT&T expects that other booster manufacturers will develop similar devices, and that such signal boosters will be developed faster than the Commission and stakeholders can adopt

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<sup>11</sup> Petition at 5. Pivotal’s proposed label would state “This device must be installed in a fixed location on your window. This device may only be operated with the permission of your service provider. Users are prohibited from making any alterations to this device.”

<sup>12</sup> *Id.* at 4.

<sup>13</sup> *Id.*

standards and regulations for them. In the near term, the only path to market for these devices will be under the Industrial Signal Booster framework, and therefore AT&T believes Pivotal's Petition will be just the first of many such requests. In the absence of a Network Protection Standard for boosters operating in millimeter wave spectrum and updated Consumer Signal Booster regulations,<sup>14</sup> it is essential that the Commission take steps to ensure that the market is not flooded with low-quality, interfering boosters outside of carriers' control, as was the case prior to the adoption of the current signal booster rules. Two key requirements the Commission can impose on booster manufacturers seeking relief similar to Pivotal's are: (1) a requirement that devices be sold only to licensed carriers for resale to their subscribers, and (2) a requirement that licensed carriers be able to remotely disable an interfering device.

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<sup>14</sup> To be clear, the Commission should not permit the operation of Consumer Signal Boosters in millimeter wave bands unless and until the Commission conducts a notice-and-comment rulemaking and determines such a rule would be in the public interest. Further, AT&T expects that significant testing would be needed to update the Network Protection Standard. *See* Reply Comments of AT&T Services, Inc., WT Docket No. 10-4, at 7-9 (June 18, 2018).

### III. CONCLUSION

As explained above, it is likely that for the foreseeable future, manufacturers of boosters operating in millimeter wave spectrum will seek to reach the market under the Industrial Signal Booster regime and seek waivers from the Commission for their devices to be regulated more like Consumer Signal Boosters. To protect millimeter wave networks from harmful interference, it is essential that the Commission, at a minimum: (1) subject such devices to labeling requirements for Consumer Signal Boosters, (2) only permit such devices to be obtained from licensed carriers, and (3) require such devices to have remote shutdown capability.

Respectfully Submitted,

*/s/ Jessica B. Lyons*

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