

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

In the Matter of )  
 )  
Commission Seeks Comment on Certain )  
Wireless Service Interruptions ) GN Docket No. 12-52  
 )

**COMMENTS OF  
THE BOEING COMPANY**

The Boeing Company (“Boeing”) and its wholly-owned subsidiary Digital Receiver Technology, Inc. (“DRT”) provide the following comments pursuant to the Federal Communications Commission’s (“Commission”) Public Notice (“Notice”) regarding the public safety implications of wireless service interruptions.<sup>1</sup>

The Notice discusses the legal and policy implications of wireless service interruptions in the context of broad interruptions, such as by shutting down a cell tower.<sup>2</sup> Although such area-effect interruptions are one method of interrupting service, technological alternatives currently exist that permit a significantly more nuanced approach to wireless service management. DRT manufactures a line of wireless management devices that emulate a base station to detect and manage wireless handsets of concern in a limited geographic area without significantly affecting normal traffic. Such devices could provide law enforcement an effective wireless management

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<sup>1</sup> *Commission Seeks Comment on Certain Wireless Service Interruptions*, Public Notice, GN Docket No. 12-52 (Mar. 1, 2012) (“*Notice*”).

<sup>2</sup> *Id.* at 2 (“We are focused on situations where one or more wireless carriers, or their authorized agents, interrupt their own services in an area for a limited time period at the request of a government actor, or have their services interrupted by a government actor that exercises lawful control over network facilities.”).

solution that expands their options while avoiding broad service interruptions and the significant drawbacks associated with them.

The existence of these alternatives places into question a basic assumption of the Notice that service interruptions must be synonymous with widespread outage. The availability of more selective, low-impact solutions to wireless service management makes it appropriate for the Commission to advocate extending these capabilities to state and local law enforcement.

**I. SCOPE OF INTERRUPTION: MORE SELECTIVE WIRELESS MANAGEMENT TOOLS ARE AVAILABLE AS AN ALTERNATIVE TO GENERAL SERVICE INTERRUPTIONS**

The Notice identifies the important tension between the value of wireless communications networks and the potential for their misuse in ways that harm public safety. Whether through disabling facilities or active jamming, general service interruptions have traditionally carried the risk of interrupting legitimate uses of the wireless communications networks that consumers rely on.<sup>3</sup> Thus, the Notice seeks comment on the appropriate scope of service interruptions and whether there exist techniques to minimize the risks from interruptions and preserve legitimate access.<sup>4</sup>

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<sup>3</sup> *Id.* at 1 (citing Press Release, *FCC Chairman Julius Genachowski's Statement on BART Policy Adoption* (Dec. 1, 2011) (noting that “[f]or interruption of communications service to be permissible or advisable, it must clear a high substantive and procedural bar”)); *see also* Press Release, *FCC Enforcement Bureau Steps up Education and Enforcement Efforts Against Cellphone and GPS Jamming* (Feb. 9, 2011); *GPS, Wi-Fi, and Cell Phone Jammers Frequently Asked Questions*, Enforcement Bureau Website (last visited Apr. 05, 2012) (“*Jammer FAQs*”).

<sup>4</sup> *Notice* at 4-5 (citing 911, Wireless Priority Service (“WPS”), and Personal Localized Alerting Network (“PLAN”) as examples of important legitimate services to be preserved in the event of a service interruption).

In framing its questions based on the assumption of a “general service interruption,”<sup>5</sup> however, the Notice does not account for technological approaches that are capable of selectively rather than indiscriminately withholding access to the network. Such selective techniques avoid the “general service interruption” associated with both disabling network facilities and active jamming. Instead of focusing on denying service, a more nuanced approach would provide public safety and law enforcement entities with more and better options for managing wireless devices.

For example, DRT manufactures equipment that emulates cellular base stations and can selectively manage access to the cellular network by individual wireless devices based on predefined or dynamically determined data. This approach is qualitatively different from shutting down network facilities and also differs from many of the assumptions about jammers. Shutdowns of network facilities indiscriminately prevent the use of all wireless devices, and jammers, as the Enforcement Bureau has cautioned, “generally do[] not discriminate between desirable and undesirable communications” and they may “potentially prevent[] the transmission of emergency communications.”<sup>6</sup>

In contrast, the selectivity of DRT’s signal management tools responds directly to these concerns and to many of the questions raised in the Notice. For instance, subheadings 4(a)-(c) of the Notice ask whether it is possible to implement a service interruption while preserving the public’s ability to make wireless 911 calls and access other public safety systems.<sup>7</sup> DRT devices do not interrupt or prevent 911 calls and do not interfere with WPS or PLAN, ensuring that any

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

<sup>6</sup> *Jammer FAQs* at 2.

<sup>7</sup> *Notice* at 4.

wireless management conducted using DRT equipment does not interfere with access to emergency services. Subheading 4(f) asks whether some methods target “narrower geographic areas.”<sup>8</sup> DRT’s technique is designed to be limited to a predefined geographic area. Finally, subheading 4(g) asks which methods would permit the “most rapid restoration of service.”<sup>9</sup> DRT’s devices do not require disabling the underlying wireless network and can be limited to only specifically identified wireless devices in the geographic areas immediately relevant to the public safety operation. As a result, DRT’s approach ensures that service interruptions to subject wireless devices can be precisely tailored in time, place, and scope, and that service can be restored immediately, thereby relieving operators from the pressure of the “limited time period”<sup>10</sup> inherent in a general interruption.

Hybrid technology such as DRT’s could allow effective but selective management of wireless networks without a wide impact on legitimate wireless communications in the area, thus providing public safety and law enforcement entities a tool that does not require compromising either free expression interests or public safety.

## **II. AUTHORITY AND BASIS FOR INTERRUPTING SERVICE: THE COMMISSION SHOULD SUPPORT THE USE BY STATE AND LOCAL LAW ENFORCEMENT OF WIRELESS DEVICE MANAGEMENT TOOLS**

The Notice seeks comment on which “public institutions, agencies, or officials” should have authority to request an interruption of wireless service.<sup>11</sup> At present, state and local law enforcement authorities are permitted in appropriate circumstances to employ electronic means

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<sup>8</sup> *Id.* at 5.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.* at 2.

<sup>11</sup> *Id.* at 5.

to identify and locate wireless devices,<sup>12</sup> but cannot interfere with their signals.<sup>13</sup> State and local law enforcement officials, however, face many of the same challenges and risks that federal law enforcement does, and the existence of more targeted tools that avoid wide-scale interruption makes it appropriate to consider permitting state and local law enforcement use of the full suite of signal management capabilities available to federal law enforcement.

The Notice identifies remotely triggered explosives and violent flash mobs as examples of threats that may necessitate service interruptions.<sup>14</sup> Law enforcement may also find benefit in interrupting wireless services when entering buildings to serve high risk warrants and to combat the use of contraband cell phones in correctional facilities. In each of these circumstances, the interruption of wireless service can prevent crime, increase officer safety, and save lives. Even in these situations, however, a broad shutdown carries the drawbacks discussed above. Permitting state and local law enforcement to use more selective technologies such as DRT's signal management systems is an alternative that offers state and local law enforcement a tool to increase their effectiveness and public safety without causing widespread or even significant service interruptions. The Commission should therefore support statutory and regulatory modifications that enable this limited use.

### **III. CONCLUSION**

Wireless communications networks play a crucial role in facilitating free expression and public safety. Public safety and law enforcement, however, need to be able to monitor these

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<sup>12</sup> *See, e.g.* U.S. v. Jones, 132 S. Ct. 945 (Jan. 23, 2012) (concluding that long term tracking of a suspect vehicle using a planted GPS device would require a court-issued warrant).

<sup>13</sup> *Notice* at 2 n. 8.

<sup>14</sup> *Id.* at 1.

services to address potential threats to public safety. Until recently, the only option was a broad service interruption with a significant impact on non-target communications and a risk of denying the public safety benefits of a wireless network at those times when it was potentially most needed. More nuanced technologies exist, however, that can address the risks of misuse of wireless devices while also preserving the benefits of publically available wireless networks. DRT's wireless device management systems are an attractive and proven solution to the public safety dilemma posed by service interruptions.

Finally, because these devices dramatically reduce the impact of wireless service management on legitimate communications, they reduce the need for limiting the use of these techniques to federal entities. The Commission should therefore promote a collaborative effort to determine how these capabilities can be extended to state and local law enforcement to equip them to carry out their duties in the safest and most effective manner without disturbing legitimate wireless communications.

Respectfully submitted,

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April 30, 2012