

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Petition for Waiver of Rules Requiring) GN Docket No. 15-178
Support of TTY Technology)

**October 6, 2016
IP-Voice Accessibility Status Report of AT&T**

Pursuant to Federal Communications Commission (“Commission”) Order released October 6, 2015,¹ AT&T submits this semi-annual report of its progress toward the development of IP-based accessibility solutions and the status of the availability of those solutions. AT&T is notifying customers in bill messages, on its website, and by other effective means about how to access this report.

1. Progress and Status of Accessibility Efforts. AT&T continues its efforts to develop RFC 4103-based real-time-text (“RTT”) to deliver access to IP-based networks to persons with disabilities. AT&T is targeting 2018 to offer mobile devices with a handset manufacturer embedded RTT solution, dependent on manufacturer development cycles. Beginning in 2017 until that embedded solution is available, AT&T intends to deploy an application-based over-the-top (“OTT”) RTT solution. The RTT solution and the 2018 timeline for an embedded solution are dependent on industry standards setting by the Alliance for Telecommunications Industry Solutions (“ATIS”) and potential RTT rules from the Commission.

¹ Petition for Waiver of Rules Requiring Support of TTY Technology, *Order*, GN Docket No. 15-178, 30 FCC Rcd 10855 (2015).

AT&T reached agreements with vendors for development of the OTT RTT solution, the software upgrades needed to support this OTT RTT application, and the delivery of hardware and software to provide backward compatibility between RTT and TTY (i.e. the virtual media resource function a/k/a the RTT-TTY interworking gateway). AT&T continues to work with these application and network vendors to create an RTT solution for its subscribers. OTT RTT applications, network software upgrades, and the RTT-TTY interworking gateway are being tested by AT&T Labs. The testing plan will be performed over multiple network configurations and include, among other activities, analysis of E911 capabilities, backward compatibility functions, RTT-to-RTT calls, authentication, IP Multimedia subsystem (IMS) registration, integrated dialer capabilities, and administrative processing and rating of RTT sessions. Subsequent software releases will be developed based upon the test feedback provided and will also be subjected to further testing.

In September 2016, AT&T Labs conducted remote testing of the initial version of the OTT RTT application for Android devices and that application was subsequently delivered to AT&T Labs for the contemplated internal lab testing.² AT&T's RTT OTT application vendor is expected to deliver the iOS and Windows versions of the application by year-end 2016. Testing of network software upgrades, which will work for Android, iOS, and Windows operating systems, began in July 2016 and will continue at least through October 2016. The RTT-TTY interworking gateway was delivered to AT&T Labs in September 2016 as well. Testing of the RTT OTT applications, the RTT-TTY interworking gateway, and possibly the network software upgrades needed to work with the applications will extend into 2017, but, at this point, are not

² The RTT OTT application extended into September 2016 due to a longer than anticipated timeline to develop the wireframe (i.e. simplified mockup of graphical interface) and the other aspects of the user experience.

expected to alter the 2017 expected delivery of an RTT OTT application across Android, iOS, and Windows operating systems.

ATIS continues work to finalize the RTT standards (notably, RTT E2E (end-to-end) Service Description and RTT Mobile Device Behavior [MDB] Specification). ATIS is conducting regular meetings to advance these standards and AT&T is hopeful the MDB and RTT E2E Service Description standards will be finalized in late 2016 and mid-2017, respectively.³ After these ATIS standards are finalized, AT&T expects to reach agreements with mobile device manufacturers to provide an RTT solution embedded within mobile devices, followed by testing of that embedded solution.

2. Interoperability. AT&T plans to work closely with other wireless carriers to provide interoperable RTT across carriers. At this time, wireless carriers are still in the early stages of technology development and thus, challenges are as yet undefined. The RTT E2E Service Description standard is expected to address interoperability issues, among others, which should minimize the questions and challenges faced by wireless providers seeking to develop interoperable RTT. AT&T has initiated contacts with other wireless carriers to discuss the development of interoperability requirements across carriers and will provide more clarity on interoperability issues in future RTT reports.

3. Backward Compatibility. AT&T considers backwards compatibility with TTY to be a key feature to RTT's suitability as a long-term TTY replacement. AT&T's RTT-TTY interworking gateway was delivered to AT&T Labs for testing on September 19, 2016 and will be subjected to testing beginning in October 2016. This gateway that will allow RTT users to

³ The MDB standard is undergoing the ATIS review process, i.e. submission for consensus building and review.

communicate with TTY users, including E911 emergency services, 711 relay services, and accessible businesses.

4. 911 Call Delivery. E911 call delivery will be advanced upon resolution of the backward compatibility solution described above. Generally, OTT RTT will deliver the 911 call over the best available and accessible network (e.g. Wi-Fi, LTE).

5. Estimated Timeline: Thus far, AT&T has not encountered any insurmountable obstacles. AT&T still expects to launch an OTT application to perform RTT functionality no later than December 2017 and mobile devices with a manufacturer embedded RTT solution in 2018. These timelines could be impacted by unexpected delays with ATIS standards setting, manufacturer development cycles, and the adoption of Commission RTT rules that impose requirements or functions that were not previously contemplated.

Dated: October 6, 2016

Respectfully submitted,



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