

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.**

In the Matter of)	
)	
Amendment of the Commission’s Rules)	WT Docket No. 07-250
Governing Hearing Aid-Compatible Mobile)	
Handsets)	
)	
Section 68.4(a) of the Commission’s Rules)	WT Docket No. 01-309
Governing Hearing Aid Compatible Telephones)	
)	
Petition of the American National Standards)	
Institute Accredited Standards Committee C63)	
(EMC) ANSI ACS C63™)	

**COMMENTS OF
RESEARCH IN MOTION LIMITED**

Research In Motion Limited (“RIM”) herewith respectfully submits its comments in the above-captioned rulemaking proceeding.¹ RIM supports the Commission’s decision to initiate this rulemaking, and in particular supports the Commission’s tentative conclusion substantially to adopt the Joint Consensus Plan submitted by Incubator Solutions Program #4 (“AISP.4-HAC”) of the Alliance for Telecommunications Industry Solutions (“ATIS”).² In these comments, RIM urges the Commission to carry through on

¹ *Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets*, Second Report and Order and Notice of Proposed Rulemaking, WT Docket Nos. 07-250 and 01-309, FCC 07-192 (released Nov. 7, 2007) (“NPRM”).

² *See* Supplemental Comments of ATIS in WT Docket No. 06-203 (filed June 25, 2007) (“Joint Consensus Plan”).

its plan to adopt the Joint Consensus Plan before February 18, 2008, and addresses the Commission's questions related to adoption of the Joint Consensus Plan. RIM also addresses in these comments the Commission's broader questions about the Commission's policies relating to hearing-aid compatibility.

I. INTRODUCTION

RIM is a leading designer, manufacturer and marketer of innovative wireless solutions for the worldwide mobile communications market. Through the development of integrated hardware, software and services that support multiple wireless network standards, RIM provides platforms and solutions for seamless access to time-sensitive information including email, phone, text messaging (SMS and MMS), Internet and intranet-based applications. RIM technology also enables a broad array of third party developers and manufacturers to enhance their products and services with wireless connectivity to data. RIM's portfolio of award-winning products, services and embedded technologies are used by thousands of organizations around the world and include the BlackBerry wireless platform, the RIM Wireless Handheld product line, software development tools, and other hardware and software. RIM's flagship BlackBerry platform of wireless devices, software and services is available from over 300 carriers, and serves approximately 12 million subscribers worldwide.

As a leading developer of wireless handheld devices for enterprise and consumer customers, RIM has significant experience working to meet the Commission's requirements for hearing-aid compatibility in its handset products. RIM also has significant experience participating in the Commission's efforts to craft and refine rules

for hearing-aid compatibility in wireless handsets.³ Of relevance to this proceeding, RIM has been an active member of Working Group 10 of ATIS' Incubator Solutions Program #4 (AISP.4-HAC),⁴ and participated extensively in its development of the Joint Consensus Plan.

The participants in this ATIS working group included a diverse body of representatives of wireless carriers, wireless manufacturers, and consumer groups representing the hearing impaired.⁵ Over the course of several months, these participants labored to craft a nuanced, balanced and interrelated set of recommendations for reforming the rules for wireless hearing-aid compatibility. In doing so, the participants worked to address a set of highly complex challenges spanning technical obstacles as well as user needs. After protracted discussions and negotiations, the participants successfully developed a detailed set of recommendations – including the text of proposed rules – that took into account the capabilities and needs of diverse stakeholders. The Joint Consensus Plan thus represents the best form of cooperation between differing segments of industry along with consumer groups to develop shared solutions to shared public policy problems, in an open and pragmatic manner. By adopting the Joint Consensus Plan as is, which represents a thoughtful and balanced approach to reforming the HAC rules, the Commission would send a strong signal in support of industry and consumer groups collaborating on similar public policy solutions in the future. Thus, the

³ See, e.g., Petition for Reconsideration of Research In Motion Limited, WT Docket No. 01-309 (filed Oct. 16, 2003) (seeking clarification that *de minimis* exemption applies on a per-air-interface basis).

⁴ For convenience, RIM hereinafter refers to the working group ATIS AISP.4-HAC WG-10 as “Working Group 10.” This working group is a subset of the ATIS Incubator Solutions Program #4-Hearing Aid Compatibility (AISP.4-HAC).

⁵ See Joint Consensus Plan at 2-3 (listing AISP.4-HAC members participating in development of the Joint Consensus Plan).

Commission should remain faithful to the details of the Joint Consensus Plan, and adopt it in whole without alteration or addition.

II. BACKGROUND

In its 2003 *Hearing Aid Compatibility Order*, the Commission modified the exemption for wireless phones in the Hearing Aid Compatibility Act of 1988 (“HAC Act”),⁶ by requiring that digital wireless phones be capable of being effectively used with hearing aids.⁷ In that order, the Commission substantially adopted the rules and framework that continue to govern hearing-aid compatibility in digital wireless phones today. In its subsequent *Hearing Aid Compatibility Reconsideration Order*, the Commission largely affirmed these rules, making some modifications to accommodate TDMA carriers overbuilding their networks, and clarifying the application of the exemption to HAC requirements for *de minimis* carriers and manufacturers.⁸ At a high level, the Commission’s framework for HAC required manufacturers to phase-in hearing-aid compatible handsets in each air interface over a series of years, in both acoustic coupling (M-rated) and inductive coupling (T-rated) modes.

III. ATIS JOINT CONSENSUS PLAN

The next phase of the Commission’s current HAC requirements, scheduled to take effect February 18, 2008, would require manufacturers of wireless handsets to make 50% of their product portfolio in each air interface hearing aid compatible for acoustic

⁶ Section 710 of the Communications Act of 1934, as amended, 47 U.S.C. § 610(b)(1)(B).

⁷ See Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, *Report and Order*, 18 FCC Rcd 16753 (2003); *Erratum*, 18 FCC Rcd 18047 (2003) (*Hearing Aid Compatibility Order*).

⁸ See Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, *Order on Reconsideration and Further Notice of Proposed Rulemaking*, 20 FCC Rcd 11221 (2005) (*Hearing Aid Compatibility Reconsideration Order and Further Notice*).

coupling.⁹ This requirement, however, presents an insurmountable hurdle for manufacturers and carriers to meet in a technologically neutral fashion.¹⁰ The Joint Consensus Plan presents a superior alternative framework for wireless hearing-aid compatibility, including reforms to rules for acoustic coupling capability.

a. Joint Consensus Plan Proposals

To address these challenges, the Joint Consensus Plan proposes to reform the Commission's HAC rules to render their operation more technologically neutral for acoustic coupling capability, and at the same time adopt additional new requirements increasing the number and types of hearing-aid compatible handsets available to consumers. Specifically, the Joint Consensus Plan would:

- Provide Tier 1 carriers with an alternative to the 50 percent rule for M-rated phones,
- Increase the number of T3-or-better phones that Tier 1 carriers must make available;
- Apply the Commission's HAC rules to all spectrum bands that are used for the provision of commercial mobile radio services in the United States;
- Require manufacturers to offer thirty three (33) percent of wireless phones at the M3-or-better level;
- Require manufacturers to include HAC capability in some of their new models each year and in handsets with varying form factors;
- Retain the de minimis exception and allow it to take into account newer air interfaces and retiring air interfaces;

⁹ See 47 CFR 20.19(c)(1)(ii).

¹⁰ As ATIS has previously explained in its comments to the Commission, the HAC rules create disproportionate technical challenges for wireless handsets and services employing GSM air interfaces. See Comments of the Alliance for Telecommunications Industry Solutions in WT Docket No. 06-203 at 21-29, filed Jan. 12, 2007. See also Reply Comments of Research In Motion Limited in WT Docket No. 06-203 at 5-6, filed on Jan. 31, 2007).

- Implement a phase-in of the ASC C63™ C63.19-2007 Standard for HAC testing;
- Require carriers and manufacturers regularly to report on the availability of products; and
- Establish a further review of the HAC rules in 2010 by the Commission.¹¹

The Joint Consensus Plan takes account of the technical realities challenging manufacturers in acoustic coupling modes, while at the same time expanding consumers' choices for new models of hearing-aid compatible handsets (so-called "product refresh") and for compatible handsets in inductive coupling (T-coil) modes. As ATIS states, "this consensus proposal offers a win-win solution for all interested parties, including consumers with hearing loss and the wireless industry."¹²

RIM commends the Commission for its tentative conclusion substantially to adopt the provisions of the Joint Consensus Plan in new HAC rules.¹³ RIM also commends the Commission for its expressed intent to adopt new HAC rules by February 18, 2008, and its decision to stay the effectiveness of the current February 18, 2008 benchmark until April 18, 2008, to allow the new rules time to go into effect.¹⁴ It is of critical importance that the Commission adhere to this schedule, and adopt the Joint Consensus Plan before February 18, 2008.

¹¹ Joint Consensus Plan at 6.

¹² Joint Consensus Plan at 8.

¹³ See NPRM at para. 5.

¹⁴ See NPRM at para. 6.

b. New Compliance Benchmarks Are Unwarranted

The Commission asks whether it should adopt future compliance benchmarks, specifically M4 or T4 handset compliance requirements.¹⁵ RIM believes that additional compliance benchmarks beyond the proposals in the Joint Consensus Plan are not warranted. In particular, RIM believes that requirements specifically calling for M4 or T4 handsets are not warranted, because the ANSI C63.19 standard is premised upon a range of acceptable M/T ratings for hearing aid compatibility. Treating the M4/T4 rating as a minimum level of hearing-aid compatibility would proceed from a different set of premises than those upon which the standard itself is based. As such, RIM believes that treating M4/T4 as a minimum level of hearing aid compatibility would be a misinterpretation and misrepresentation of the ANSI C63.19 standard, and would entail the development of entirely new technical standards for HAC measurement.

Under the current FCC rules, a wireless handset with an M4/T4 can be hearing aid compatible, as can a handset with an M3/T3 rating. This is because the current ANSI C63.19 standard provides for a range of interoperability between wireless handsets and hearing aids. As the Commission explained in the *Hearing Aid Compatibility Order*:

Based on recommended audio signal-to-interference ratios and other assumptions about wireless phones' performance, ANSI C63.19 specifies ratings for digital wireless phones, U1 through U4, based on their RF emission levels, with U1 being the highest emissions and U4 the lowest emissions. The standard also provides a methodology for rating hearing aids from U1 to U4 based on their immunity to interference, with U1 being the least immune and U4 the most immune. To determine whether a particular digital wireless phone will not interfere with a particular hearing aid, the immunity rating of the hearing aid is added to the emissions rating of the wireless phone. A sum of 4 would indicate that the wireless phone is usable; a sum of 5 would indicate that the wireless

¹⁵ See NPRM at para. 49.

phone would provide normal use; and a sum of 6 or greater would indicate that the wireless phone would provide excellent performance with that hearing aid.¹⁶

Based on the ANSI C63.19 standard, hearing-aid compatibility is determined by measuring the M-rating or T-rating of a particular handset and adding it to the M-rating or T-rating of a particular hearing aid.¹⁷ The sum of both ratings is meant to offer a predictor of usability across a range of handset and hearing aid model combinations.¹⁸ The standards for measuring and developing M3/T3 and M4/T4 ratings for wireless handsets in the ANSI C63.19 standard were premised upon that range of possible combinations.

Notably, while the Commission's rules require the production of specific numbers and percentages of M3-or-higher and T3-or-higher wireless handsets, no such legal requirements exist for the production of specific numbers or percentages of hearing aids at specified M/T ratings for RF immunity. Nevertheless, hearing-aid compatibility is fundamentally an issue of interoperability between wireless handsets and hearing aids, as reflected in the approach taken by the ANSI C63.19 standard. Adoption of a specific M4/T4 requirement for wireless handsets would shift the burden for achieving this interoperability even further onto handset manufacturers, when achieving that interoperability is not and could not be a one-sided affair.

Rather than adopting specific requirements for M4/T4 wireless handsets, the Commission should allow the ANSI C63.19 standard to continue functioning as intended

¹⁶ *Hearing Aid Compatibility Order* at para. 40 (emphasis added).

¹⁷ *See* NPRM at n. 125.

¹⁸ *See id.* ("A sum of 4 would indicate that the wireless phone is usable; a sum of 5 would indicate that the wireless phone would provide normal use; a sum of 6 or greater would indicate that the wireless phone would provide excellent performance with that hearing aid." (emphasis added)).

– as a predictor of interoperability across a range of possible wireless handset and hearing aid combinations, according to the respective M-ratings and T-ratings of each.

c. Product Refresh

RIM supports the Joint Consensus Plan, which proposes a new “product refresh” requirement for hearing-aid compatible wireless handsets.¹⁹ The Commission seeks comment on whether this proposal should be modified in any way.²⁰ RIM believes that the “product refresh” proposal as is represents a very significant new ongoing commitment by the manufacturers participating in Working Group 10. Thus, RIM does not believe the Commission should modify it in any way.

In particular, RIM believes that the Commission should not adopt rules requiring specific outreach by manufacturers to inform the public about new models introduced as part of their product refresh requirements.²¹ RIM notes that, as part of the Joint Consensus Plan, manufacturers have already made a voluntary commitment to provide the public with HAC ratings for all of their wireless handsets on their websites.²² RIM believes that the Commission should not engage in micromanaging manufacturers’ retail marketing efforts by adopting specific requirements for outreach efforts in its rules. In sum, RIM believes that the Commission should not modify the Joint Consensus Plan’s proposed “product refresh” provisions.

¹⁹ See Joint Consensus Plan at 9.

²⁰ See NPRM at para. 55.

²¹ See NPRM at para. 76.

²² See Joint Consensus Plan at 14.

d. Product Tiering

RIM supports the Commission's tentative conclusion to adopt the Joint Consensus Plan's framework for Tier I carriers' reporting of the levels of functionality of the hearing-aid compatible handsets they make available. Because this element of the Joint Consensus Plan reflects a commitment made by Tier I carriers, RIM limits its comments to one aspect of the Commission's notice. Specifically, the Commission proposes to interpret levels of functionality as including "the extent to which a handset model has the capability to operate over multiple frequency bands for which hearing aid compatibility standards have been established."²³ This proposal adds a new element to Joint Consensus Plan's framework for reporting levels of functionality that departs from its intent, and should not be adopted.

The intent of this aspect of the Joint Consensus Plan was to provide information on the availability of hearing-aid compatible phone models across a range of functionality and features. As the Commission acknowledges, the demarcation of tiers was left to reporting carriers to avoid micromanaging product portfolios, and allow carriers the necessary flexibility to manage their own product offerings. At a basic level, however, what was intended was the reporting of features and functionality corresponding to value to the consumer. The availability of specific spectrum bands or lack thereof on a given handset does not directly correspond to the value of that handset to consumers, and may simply reflect an individual carrier's efficient management of its spectrum assets. RIM also notes that, as part of the ATIS joint status report submissions, carriers as well as

²³ See NPRM at para. 56.

manufacturers already report the frequency bands supported by their HAC compliant handsets.²⁴

Consequently, RIM believes that inclusion of frequency bands in the definition of “product tiers” or “levels of functionality” fails to represent the intent of this component of the Joint Consensus Plan, and should not be adopted.

e. Phase-In of ANSI C63.19-2007 Standard

RIM supports the Commission’s tentative conclusion to adopt the Joint Consensus Plan’s framework for phasing in the latest version of the standard for measuring hearing aid compatibility, ANSI C63.19-2007. Under this proposal, the Commission would permit both the 2006 and 2007 versions of the standard to be used for new RF interference and inductive coupling HAC certifications through 2009, and 2010 onwards would only allow the 2007 version of the standard to be used. Furthermore, under this proposal, grants of equipment authorization previously issued under other versions of the standard would remain valid for HAC purposes.

The Commission’s notice asks whether previously certified handsets should be recertified under the 2007 standard in order to be considered hearing-aid compatible. RIM opposes the adoption of such a recertification requirement, which would jeopardize the phase-in proposed in the Joint Consensus Plan. As a practical matter, handset models certified under previous versions of the standard will gradually leave the market over time as part of their natural product lifecycle, ensuring that an ever-increasing proportion of handsets conform to the most recent version of the standard. Moreover, such a

²⁴ See, e.g., “Hearing Aid Compatibility Compliance Efforts, Status Report #7,” submitted by the Alliance for Telecommunications Industry Solutions on behalf of The ATIS Incubator Solutions Program #4, WT Dkt. No. 01-309, filed on Nov. 19, 2007 (“*Status Report #7*”).

requirement would be incredibly unfair to manufacturers, who build a handset product according to the version of the standard available at the time that product is developed. A recertification requirement would penalize products for failing to meet a set of standards that did not even exist at the time those products were created.

Rather than imposing a recertification requirement, the Commission should adhere to the phase-in process proposed in the Joint Consensus Plan. The Joint Consensus Plan's phase-in proposal strikes the right balance between spurring the development of an increasing number of products conforming to the new HAC technical standards, without unfairly penalizing older products on their way out of the market.

f. Reporting Requirements

RIM supports the Commission's objective to make appropriate enhancements and improvements to manufacturer and service provider reports on the availability of hearing-aid compatible products. The Commission expresses particular concern about the difficulty of associating manufacturer model numbers with associated FCC ID numbers, and seeks the reporting of air interfaces and frequency bands on HAC compliant handsets.²⁵ In this regard, RIM notes that its own status reports clearly reference manufacturer model numbers and associated FCC ID numbers as well as air interfaces and frequency bands, in its report submissions to the Commission through ATIS.²⁶ RIM also notes that the other reporting manufacturers and service providers employing ATIS'

²⁵ See NPRM at para. 67.

²⁶ See Status Report #7, Attachment A at 33 (report by Research In Motion Limited dated Nov. 1, 2007).

joint report submission process also report manufacturer model numbers along with associated FCC IDs, frequency bands and air interfaces.²⁷

RIM also notes that it supports the Commission's proposal to accept a manufacturer's determination of whether a device is a distinct model based on its own marketing practices.²⁸ Because information associating manufacturer model numbers with FCC ID numbers is already available from RIM and others filing through the ATIS joint Status Report process, RIM does not believe that changes to the Commission's rules governing equipment authorizations or permissive changes to authorized equipment are necessary for the Commission to obtain the information it seeks. In particular, RIM does not believe that the Commission should require manufacturers to include all potential marketing model numbers in their equipment authorization filings or to require a filing for permissive changes whenever a new trade name or model number is introduced.²⁹ Rather, as the Commission's current rules already contemplate, manufacturers often introduce new trade names and model numbers for reasons unrelated to the changes in electrical or radio characteristics that would require filings for permissive changes or new equipment authorizations.³⁰ Adopting new rules requiring a filing for every new trade name or model number would unnecessarily delay the introduction of new products by manufacturers, with no corresponding benefit in the availability of new information on

²⁷ *See id.*

²⁸ *See* NPRM at para. 68 (“We would accept the manufacturer’s determination of whether a device is a distinct model consistent with the manufacturer’s marketing practices, so long as models that have no distinguishing variations of form, features or user capabilities, or that only differentiate units sold to a particular carrier, are not separately counted as distinct models to customers.”).

²⁹ *See* NPRM at para. 74.

³⁰ *See* 47 C.F.R §§ 2.924 & 2.1043.

hearing-aid compatible handsets. Furthermore, so long as marketing model numbers and associated FCC ID numbers for HAC compliant handsets are consistently and clearly reported to the Commission (as they are by RIM and others filing through the ATIS joint status reports), the Commission and the public already have a means of determining whether reporting entities are accurately portraying their HAC compliant portfolios.

To the extent that the Commission determines the need to adopt a standardized reporting format for the collection of information on manufacturer and service provider compliance with the HAC rules, RIM urges the Commission to look to ATIS' joint Status Report submissions as a model.³¹ RIM also urges the Commission to continue to allow, but not require, the collection and submission of joint reports by ATIS, given how well this process has worked in the past. RIM also urges the Commission not to delay the adoption of the Joint Consensus Plan proposed rules due to any delay in developing a standardized reporting format. Rather, given the short amount of time until February 18, 2008, RIM urges the Commission to focus first on completing rules adopting the Joint Consensus Plan. The Commission and the Wireless Telecommunications Bureau will have ample time to develop any new standardized reporting process after the Joint Consensus Plan has been adopted in rules.

Finally, RIM supports the Joint Consensus Plan's proposed schedule for submission of annual HAC compliance reports, under which manufacturers will continue to provide status reports to the Commission on November 30 of every year.³² RIM urges the Commission to refrain from increasing the frequency with which manufacturers must

³¹ *See, e.g.*, supra at n. 24.

³² *See* Joint Consensus Plan at 11.

report their availability of HAC compliant products. More frequent reporting would offer little benefit, but represent a significant burden on manufacturers. The current annual reporting process has worked well, and little record evidence has been offered to support increasing its frequency to “three or six months” as the Commission inquires.³³ In fact, given that most of the compliance benchmarks in the Commission’s current rules as well as the Joint Consensus Plan are triggered on an annual basis, reporting on an annual basis continues to make the most sense. RIM urges the Commission to continue allowing reporting by manufacturers on an annual basis.

g. Multi-Mode and Multi-Band Handsets

The Commission has held that if a handset manufacturer offers a multi-band handset to comply with the hearing aid compatibility requirements, that handset must be hearing-aid compatible in all spectrum bands used for CMRS service within the U.S. in order to be counted as hearing-aid compatible.³⁴ Similarly, the Joint Consensus Plan proposes that multi-mode handsets will not be counted as hearing-aid compatible for any air interface unless they are compatible in all air interfaces over which they operate on spectrum bands used for CMRS service within the U.S.³⁵ These represent reasonable principles for evaluating the hearing-aid compatibility of multi-band and multi-mode handsets.

³³ See NPRM at para. 70.

³⁴ See NPRM at para. 11 and see Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, Cingular Wireless LLC Petition for Waiver of Section 20.19(c)(3)(i)(A) of the Commission’s Rules, *Memorandum Opinion and Order*, WT Docket No. 01-309, 20 FCC Rcd 15108, 15115 ¶ 17 (2005) (*Dual-Band GSM Waiver Order*) (Commission permitted handset manufacturers and service providers offering dual-band GSM wireless handsets operating in both the 850 MHz and 1900 MHz bands additional time, until August 1, 2006, for making available handsets with a U3 (*i.e.*, M3) or higher rating in both bands).

³⁵ See Joint Consensus Plan at 10.

The Commission's notice, however, departs from these principles and proposes to add to them a rule establishing that handsets cannot be counted as hearing aid compatible if they operate over spectrum bands or air interfaces for which HAC technical standards have not yet been established.³⁶ RIM strongly urges the Commission to refrain from adopting such a rule. Such a rule would unfairly penalize manufacturers for the typically lengthy timelines inherent in the work of standards-setting processes, timelines over which manufacturers individually exert little control. Such a rule would also create a significant disincentive to the introduction of new technologies to market, automatically rendering them HAC non-compliant. Finally, such a rule would be a solution in search of a problem. In the absence of any finding or evidence that a particular spectrum band or air interface creates interference with hearing aids, the Commission would automatically treat it as incompatible.

RIM also believes that the Commission lacks statutory authority to adopt such a rule. Subsection (b)(1) of the HAC Act requires "established technical standards" for the imposition of a HAC requirement.³⁷ The Commission's rules for wireless hearing aid compatibility implement this subsection, by lifting the exemption for CMRS services set out in subsection (b)(2)(C) of the HAC Act.³⁸ Consequently, the statutory requirement for "established technical standards" before HAC requirements can be applied pertains with equal force to wireless handsets as it does to wired telephones. By excluding as non-compatible handsets with bands or interfaces for which no HAC technical standards

³⁶ See NPRM at paras. 81, 84.

³⁷ 47 USC § 610(b)(1).

³⁸ *Id.* § 610(b)(2)(C).

have been established, the Commission would effectively be enforcing the imposition of a HAC requirement on those handsets in the absence of “established technical standards” for the offending bands or interfaces. RIM believes that, under the language of the HAC Act, the Commission lacks the authority to adopt such a requirement.

The Commission should refrain from automatically excluding bands or interfaces for which no technical standards exist, and refrain from automatically extending its HAC rules to new bands and interfaces in the absence of “established technical standards.”

Rather, the Commission should continue its support for current standards-setting processes to identify bands and interfaces that create interference with hearing aids and develop measurement and rating methodologies accordingly. The Commission should also continue its current delegation of authority to the Wireless Telecommunications Bureau and Office of Engineering and Technology to approve future versions of the ANSI C63.19 standard that do not raise major compliance issues.³⁹ There is no record evidence that the current standards-setting process is failing to address new bands or interfaces, or that new bands or interfaces are creating significant new challenges for hearing-aid compatibility, and no such record evidence is cited in the Commission’s notice. In the absence of any such record, the Commission’s proposal to automatically exclude new bands and technologies is a solution in search of a problem.

h. De Minimis Exemption

RIM supports the Joint Consensus Plan’s proposal and the Commission’s tentative conclusion to retain the *de minimis* exemption in its current form, and to codify the Commission’s previous clarification that this exemption applies on a per air-interface

³⁹ See NPRM at para. 10.

basis. As the Commission recognizes, the record compiled in response to the *Hearing Aid Compatibility Reconsideration Order and Further Notice* does not support any narrowing of the *de minimis* exemption.⁴⁰ In fact, the only comments submitted in response to the Commission's previous notice opposed any narrowing of the *de minimis* exemption.⁴¹

Noting the Commission's tentative conclusion to retain the *de minimis* exemption in its current form, RIM takes this opportunity to add that it believes the *de minimis* exemption has been operating exactly as it was intended. When it clarified that the *de minimis* exemption was intended to apply on a per-air-interface basis, the Commission noted the perverse unintended outcomes that could result if manufacturers with a small product portfolio in a particular air interface were forced to apply HAC requirements across their entire product lines. The Commission noted at the time that manufacturers could be forced to triple their product offerings in such air interfaces, or to withdraw existing product lines from the market.⁴² These outcomes would be equally perverse now as they were then. The *de minimis* exemption remains a critical avenue for manufacturers of all sizes to introduce small portfolios of new products using new technologies – already representing a significant and risky engineering challenge even in the absence of a HAC requirement. Furthermore, there is little evidence that the application of the *de minimis* exemption to small product portfolios in an air interface results in the denial of handset options to hearing-impaired consumers in the aggregate. Indeed, notwithstanding

⁴⁰ See NPRM at para. 85.

⁴¹ See *id.* at paras. 30-31.

⁴² See *Hearing Aid Reconsideration Order* at para. 53.

the current application of the *de minimis* exemption, the latest Status Report submitted by ATIS does not show large numbers of wireless handsets escaping HAC requirements due to the *de minimis* exemption. Rather, it shows that 60% of manufacturers' wireless handsets and 50% of CMRS carriers' handset offerings are HAC compliant.⁴³

i. Volume Controls

RIM commends the Commission for its interest in the issue of volume controls for hearing aid compatible wireless handsets, but believes that it is premature to consider the adoption of new rules for volume controls at this point.⁴⁴ RIM asks the Commission to take note of the work being done in AISP.4-HAC to study the issue of volume controls and to develop any appropriate recommendations as a result of that study: "AISP.4-HAC has agreed to study and make recommendations regarding audio output levels and volume controls. Upon completion of this review, AISP.4-HAC will submit a proposal requesting further modifications to the Commission's HAC rules if it determines modifications are necessary."⁴⁵ Thus, RIM believes the adoption of additional rules for volume controls at this point is premature.

IV. EMERGING TECHNOLOGIES

The Commission's current HAC rules apply to handsets used with digital CMRS networks that "offer real-time, two-way switched voice or data service that is interconnected with the public switched network and utilize[] an in-network switching facility that enables the provider to reuse frequencies and accomplish the seamless hand-

⁴³ See Status Report #7 at 7-8 (Tables 1 and 2).

⁴⁴ See NPRM at para. 87.

⁴⁵ Joint Consensus Plan at 14.

offs of subscriber calls.”⁴⁶ The Commission’s notice seeks comment on whether the HAC rules should be extended to technologies that fall outside the definition of CMRS or these criteria, such as handsets operating on unlicensed WiFi networks.⁴⁷ The Commission cites the expanded availability of handsets combining CMRS and WiFi air interfaces, and the availability of handsets with dual-mode voice operability between unlicensed modes and traditional licensed CMRS networks.⁴⁸

RIM believes that it is premature for the Commission to consider adopting HAC requirements for handsets with WiFi interfaces. This is a nascent market, with no clear indication yet whether WiFi creates appreciable interference for hearing aids. In fact, RIM only began announcing its first products combining WiFi interfaces with traditional CMRS interfaces in the second half of 2007. Of its two dual-mode handsets currently marketed in the U.S., only one is currently being sold for use on an Unlicensed Mobile Access (UMA) network.⁴⁹ Worldwide, it is estimated that there were only approximately 70,000 wireless subscribers using UMA services by the end of 2006⁵⁰ – compared to a wireless marketplace counting more than 2.8 billion subscribers total.⁵¹ The integration

⁴⁶ 47 CFR § 20.19(a).

⁴⁷ See NPRM at para. 89.

⁴⁸ See NPRM at para. 90.

⁴⁹ Unlicensed Mobile Access (UMA) technology enables access to GSM and GPRS mobile services over unlicensed spectrum, including Bluetooth and WiFi. At present, RIM’s dual-mode 8320 BlackBerry Curve is available for use with T-Mobile’s HotSpot@Home service. See “T-Mobile and RIM Introduce BlackBerry Curve 8320 With Wi-Fi Calling Feature,” Press Release, dated Sept. 25, 2007 (available at <http://www.rim.com/news/press/index.shtml>).

⁵⁰ See “Unlicensed Mobile Access (UMA) – Vendor Ecosystem, Operator Deployment Activity, and Subscriber Forecasts,” Philip Solis, ABI Research (2Q 2007).

⁵¹ See “Subscriber Statistics End Q1 2007,” Wireless Intelligence (available at <http://www.gsmworld.com/news/statistics/index.shtml>).

of voice services using WiFi networks with wireless CMRS networks is clearly in its infancy. Furthermore, there is as of yet no clear indication that the inclusion of WiFi interfaces in dual-mode handsets is creating appreciable interference with hearing aids, nor does the Commission's notice cite any evidence of such interference. Furthermore, Working Group 4 of AISP.4-HAC has identified technical issues around the testing of WiFi for hearing aid compatibility that require further work, which has been taken up by ANSI ASC C63 Sub Committee 8 ("SC8") Working Group 3.⁵² In light of these factors, RIM believes it is far too premature for the Commission to apply a legal HAC requirement to handsets with WiFi capabilities. The Commission should refrain from creating such a requirement at the present time.

Similarly, RIM believes it is premature to apply legal HAC requirements to manufacturers of devices using "open platform networks" in the 700 MHz spectrum band – networks that do not yet even exist.⁵³ As a general matter, the Commission should refrain from imposing a highly technical legal mandate on technologies that are unknown, could comprise multiple possible configurations, or do not yet even exist in the marketplace. The Commission's HAC rules were created to solve known interference problems encountered by hearing aid wearers using specific wireless technologies for voice telephony service in the U.S. marketplace. The risks of unintended consequences and discouraging the introduction of new technologies are far too great for the Commission to use highly technical HAC rules to solve unknown interference problems

⁵² See "Hearing Aid Compatibility Compliance Efforts, Status Report #6," submitted by the Alliance for Telecommunications Industry Solutions on behalf of The ATIS Incubator Solutions Program #4, WT Dkt. No. 01-309, filed on Nov. 17, 2006 ("*Status Report #6*"), at 9 and Attachment B.

⁵³ See NPRM at para. 95-96.

for unspecified technologies. RIM is also concerned that the anti-collusion rules currently in effect for the upcoming 700 MHz auction will prevent many commenters from fully discussing the issues inherent in considering HAC requirements for “open platform” networks operating in this spectrum.⁵⁴ For these reasons, RIM believes it is premature for the Commission to consider applying HAC rules to “open platform” networks.

While the Commission considers emerging network and handset technologies, RIM urges the Commission to also consider emerging technologies for interoperability between wireless handsets and hearing aids. For example, for certain users of certain types of hearing aids, digital coupling via Bluetooth may emerge in the future as a viable potential alternative to current strategies for hearing aid compatibility.⁵⁵ In addition, continuing improvements in the RF immunity of hearing aids could mitigate the effects of any additional RF emissions created by emerging technologies for wireless voice communications.⁵⁶ Even today, “improvements in the immunity of hearing aids means that consumers can now often achieve satisfactory performance with handsets rated below M3.”⁵⁷ The Commission should also consider the concomitant legal responsibilities of manufacturers of hearing aid devices as it considers emerging

⁵⁴ See “Auction of 700 MHz Band Licenses Scheduled For January 24, 2008,” Public Notice, DA 07-4171, AU Docket No. 07-157 (Oct. 5, 2007).

⁵⁵ See Comments of the Technology Access Program of Gallaudet University in WT Docket No. 06-203, filed Jan. 12, 2007, at 8, 10. (“Bluetooth is currently available only as an accessory to hearing aids which either have a direct audio input interface or a telecoil. In addition, the offerings for such add-ons are currently available from only two companies. It is likely that if Bluetooth or a similar technology can overcome the current size and efficiency problems prohibiting its use within hearing aids, it might, in the long-term, replace the telecoil. However, there is no way to predict when such advances might take place.”)

⁵⁶ See Comments of the Alliance for Telecommunications Industry Solutions, WT Docket No. 06-203, filed Jan. 12, 2007, at 31.

⁵⁷ *Id.* at 8.

technologies for wireless voice communications. The HAC Act requires compatibility only with hearing aids that are “designed to be compatible with telephones.”⁵⁸ As technologies for digital wireless voice telephony evolve, hearing aid technology that is “designed to be compatible with telephones” would also need to evolve at a similar pace.

V. CONCLUSION

RIM commends the Commission’s initiation of this rulemaking proceeding, and the Commission’s stated intent to adopt new rules governing hearing aid compatibility before February 18, 2008. It is of critical importance that the Commission adhere to this schedule, and adopt the Joint Consensus Plan in whole, without any alteration or addition. Manufacturers, carriers and consumer groups representing the hearing impaired have done a tremendous amount of work and reached significant compromises to develop the Joint Consensus Plan. By adopting the Joint Consensus Plan in whole and in time, the Commission will be adopting a “win-win” solution that benefits all of these various stakeholders alike.

Respectfully submitted,

_____/s/ Praveen Goyal

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⁵⁸ 47 U.S.C. § 610(b)(1) (“all essential telephones [shall]...provide internal means for effective use with hearing aids that are *designed to be compatible with telephones*”) (emphasis added).