North American Broadcasters Association (NABA)

ACTIVATING RADIO CHIPS IN SMARTPHONES:
A PROPSED ITU STUDY

The North American Broadcasters Association[1], (NABA, www.nabanet.com) is an association of broadcasters within ITU-R Region 2 countries Canada, Mexico and the United States, which have adopted the Advanced Television Systems Committee (ATSC, www.atsc.org) standard for Digital Terrestrial Television Broadcasting. The NABA Technical Committee is its standing technical body.

NABA is a Sector Member of ITU-R and a long-time participant in ITU-R Study Groups, Working Parties, Task Groups, Rapporteur Groups, etc. NABA numbers among its members Chairmen, Vice-Chairmen and members of the above groups. NABA also participates widely in the ITU work on radio, television and multimedia services.

NABA proposes the ITU create a Task Force of Study (SG 6) on the efficacy of the activation of available radio chips (FM, DAB, DAB+ and DMB) in smartphones and tablets along with the availability of the appropriate applications ("apps") which allow for the associated features available in the IP world. This Task Force would be done in the context of recognizing that Radio is the single most efficient method of mass market communication, and that by adding these chips and associated apps, further benefits accrue to the consumer/citizen using the services.

The European Broadcasting Union (EBU) also supports this proposal.

Benefits

Benefits include, but are not limited to:

–   Enhanced local content
–   Cost-efficient consumption of enhanced services

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[1] NABA members include: Ad-ID LLC; Bell Media, CBC/Radio-Canada; CBS Broadcasting, Inc.; Corus Entertainment; DIRECTV, Inc.; Disney/ABC Television Group; Dolby Laboratories, Inc.; Emmis Communications; Ericsson Television Inc.; Eutelsat America Corp.; Evertz Microsystems Ltd.; Fox Entertainment Group, Inc.; Grupo Televisa S.A.; Harmonic, Inc.; HD Radio™ – a DTS Solution; HERE; Imagine Communications; Inmarsat; Intelsat; Level 3; National Association of Broadcasters (NAB); NPR; NBC Universal; Numeris; Public Broadcasting Service (PBS); SES; Sinclair Broadcast Group (SBG); Time Warner, Inc.; TV Azteca S.A. de C.V.; and Univision Communications Inc.

–   Public service capabilities which can include helping citizens in times of emergency or need

Discussion

While there are obvious benefits to the providers of radio services for such activation along with their listeners, there are equal service and commercial opportunities for the mobile operator. It should be noted that there is no cost for this activation and, as Original Equipment Manufacturers (OEM) make more radio chips available, the only requirements are to activate the chip and for the consumer to acquire the appropriate app.

As analogue and digital radio strives to be both competitive and relevant in an IP world, all the players who use publically-owned spectrum to deliver their services need to embrace the realities of new business models and relationships which will add value to all the services that consumers/citizens may enjoy. There should be a derived public benefit from the scarce spectrum leased out or sold to service providers, not just purely a commercial benefit. It is thereby not in the public interest for one platform to block another from maximizing their services when there is no cost associated with that action and there is the potential of both enhanced public services and/or revenue for all parties.

Timely

As digital radio continues to grow and become a mass market factor, like analogue radio currently is, and as the mobile industry pushes for more spectrum in domestic markets around the world and at WRC-15, it is clearly time to have a study that talks about the potential of these new and old technologies and how they can best serve the public interest in a multi-platform world. We hope the ITU will take this work on to the benefit of all its member countries.

Attached please note two appendixes as background to the above comments: FM Chips in North America, and the Smart Radio Initiative.

APPENDIX 1

FM chips in North America and their potential for enhanced services

Technical Summary

Smartphones contain hardware that consists of a multitude of connectivity capabilities including, among other things, *Bluetooth* and similar technologies. Regardless of the chipset manufacturer elected by the smartphone maker, FM receivers have 100% inclusion in this purpose set of connectivity chips. Due to the high attach rate for FM, Table 1 identifies the current market conditions for FM in smartphones.

TABLE 1

FM Radio Capability in U.S. Smartphones (% of total sold), CY 2014

FM Radio Activated and Available[*]	19%
FM Radio Installed but Easily Activated[**]	8%
FM Radio Installed but not Activated[***]	69%
FM Radio Information Unavailable	4%

[*]   FM radio activated by at least one major U.S. carrier using these phones.

[**]   Some international versions of these phones have activated FM radios which are software disabled. Activating FM in U.S. versions would likely not involve changes to hardware.

[***]   Of these installed but not activated phones, 73% are Apple iPhones

In order for smartphone Original Equipment Manufacturers (OEM's) to activate FM radio, they need to:

–   Ensure the FM hardware is active

–   Ensure FM Radio software libraries are implemented and available to app providers

–   Allow earbuds to act as the FM analogue antenna

–   Confirm audio path for FM is fully capable on the device.

U.S. based FM radio broadcasters have recognized that consumer interests are motivated by content. Therefore, broadcasters supporting FM Radio enabled smartphones need to:

–   Provide a common app for consumer FM radio use

–   Distribute synchronous visual content to an FM smartphone via an FM radio app

–   Provide a minimum of market-wide station branding (i.e. logos) with more focus on unique content

Value in Emergency Situations

FM radio enabled smartphones are a more efficient method of receiving local radio when compared to streaming, better serving the public. The value of efficiency is more noticeable in times of emergency.

–   Local radio stations are typically the best source of information in a disaster.

•   "We always tell you: All disasters are local and the most important information is going to come from those local broadcasters that are plugged into local

officials telling you what's going on the ground." (Interview with Craig Fugate, FEMA Administrator, www.freeradioonmyphone.org)

−   FEMA and the FCC recommend having a portable radio during an emergency. ("FCC and FEMA: How to Communicate Before, During and After a Major Disaster," Craig Fugate and Julius Genachowski - September 21, 2011)

−   During emergencies, cellular communication networks often cease to function or are overloaded.

•   In each of Hurricanes Irene (2011) and Sandy (2012), the East Coast Earthquake (2011), and the Boston Marathon Bombings (2013), cellular networks were overloaded leaving people unable to gather life-saving information.

•   The situation is unlikely to change because it is not cost effective to design a cellular network to withstand the peak traffic that occurs during an emergency. ("Why Cell Phone Networks Fail in Emergencies," Bloomberg Business, April 16, 2013)

−   Activating the FM receiver in smartphones will give citizens access to vital information in the event of a disaster.

•   Virtually all smartphones already have an integrated FM receiver as part of a WIFI/Bluetooth chip set, with four out of every five sold in the U.S. with the FM receiver deactivated. ("FM Radio in Smartphones," NAB Labs 2015, http://www.nablabs.org/projects/project.asp?id=3550)

•   Approximately 65% of all U.S. adults have smartphones.

•   (The Digital Consumer, Nielsen, February 2014,) http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2014%20Reports/the-digital-consumer-report-feb-2014.pdf

−   Activating the FM receiver in smartphones would provide additional benefits to consumers:

•   Listening to FM radio on smartphones provides as much as a six-fold battery life extension over online streaming audio services. (Sprint/NextRadio study, July 2013)

•   FM radio listening on smartphones has no impact on users' data plans, whereas streaming 2 hours of online radio services per day can use over 3.5 gigabytes (GB) of data each month. (Verizon Data Calculator, http://www.verizonwireless.com/b2c/splash/dataShareCalculator.jsp)

APPENDIX 2

The smart radio initiative

Intended to improve the popularity, access to and experience of radio through the launch and promotion of free-to-air analogue and digital radio services in various devices through coordinated actions. Smart Radio is the marketing-slogan to achieve this goal, irrespective of the technical realization.

1 Objectives

The Smart Radio is all about giving radio a future in the digital economy and will facilitate the transition to digital radio. With today's media convergence, audiences, and youth in particular, expect to listen to radio on their mobile telephones and tablets. The existence of hundreds of media apps underlines this desire. While radio-only receivers are increasingly being replaced by more sophisticated devices, radio as a media continues to meet a strong consumer demand and will remain hugely popular as long as it is available on the devices used by audiences today and in the future.

2 Common Goal

The signing parties work together to promote hybrid digital radio services in their respective territories; and their availability in:

– domestic radio sets

– smartphone handsets

– automotive multimedia entertainment receivers

– tablet computers.

3 Benefits

Cost-free listening for consumers

The Smart Radio Initiative promotes the installation of appropriate reception devices in all radio sets and especially mobile devices (smart-phones, tablets) rendering it possible for audiences to receive broadcast services everywhere at no incremental cost. Consumers will not need to pay for broadband reception of free-to-air radio services.

An Internal Market-friendly initiative for audiences

Future-proof and interoperable, the Smart Radio initiative promotes reception of radio services by audiences anywhere regardless of delivery technologies and detailed technical solutions in different devices.

Efficient use of media delivery networks

By using broadcast technology, the Smart Radio initiative aims to reduce pressure on mobile broadband networks while making full use of spectrum allocations for digital and analogue radio.

Huge potential for combined media delivery channels

Offering a seamless listening experience to audiences, hybrid radio services will foster new business models for the digital economy and generate creative opportunities and new ways of involving audiences in interactive programs while using the broadband backchannel.

Enhanced safety

The Smart Radio initiative will boost road safety by simplifying the delivery of real-time, language-independent and more precise traffic information about local and cross-border conditions. Free-to-air radio ensures also in times of crisis, when mobile networks are quickly down, to reach mobile users because of the robust terrestrial broadcasting technology.

4   Signatories

List of signatories, as of November 2014, in alphabetical order:

1   ARD, Arbeitsgemeinschaft der Rundfunkanstalten Deutschlands, Germany

2   APR, Arbeitsgemeinschaft Privater Rundfunk, Germany

3   BBC, British Broadcasting Corporation, United Kingdom

4   CR, Cesky Rozhlas, Czech Republic

5   DR, Deutschlandradio, Germany

6   DRM, Digital Radio Mondiale consortium, United Kingdom

7   EBU, European Broadcasting Union, Switzerland

8   Fun Radio, Belgium

9   Klassik Radio, Germany

10   MTG, Modern Times Group, Sweden

11   Die Neue Welle, Germany

12   NRK, Norsk Rikskringkasting, Norway

13   NPO, Nederlandse Publieke Omroep, Netherlands

14   P4 Radio Hele Norge, Norway

15   PR, Polskie Radio Spółka Akcyjna, Poland

16   RTBF, Radio Télévision Belge Francophone, Belgium

17   Regiocast GmbH, Germany

18   RTL Belgium, Belgium

19   RAI, Radio Radiotelevisione Italiana, Italy

20   SIRTI, Syndicat Interprofessionnel des Radios et Télévisions Indépendantes, France

21   Sky Radio Group, Netherlands

22   SNRL, Syndicat National des Radio Libres, France

23   SRG SSR, Schweizerischer Radio- und Fernsehgesellschaft, Switzerland

24   SR, Sveriges Radio, Sweden

25   VSP, Verband Schweizer Privatradios, Switzerland

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