

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

In the Matter of)	
)	
Assignment Applications of)	ULS File Nos. Listed In Exhibit 1
T-Mobile License LLC and)	
Cellco Partnership d/b/a/ Verizon Wireless)	
and Certain of Its Subsidiaries)	

OBJECTION OF SIRIUS XM RADIO INC.

Sirius XM Radio Inc. (“SiriusXM”) objects to grant of the assignment applications filed on July 17, 2015 (collectively, the “Application”) by T-Mobile License LLC (“T-Mobile”) and Cellco Partnership d/b/a/ Verizon Wireless and certain of its subsidiaries (collectively “Verizon” and, together with T-Mobile, the “Applicants”), which seek authority to “swap” certain Advanced Wireless Services (“AWS”) and Personal Communications Service (“PCS”) spectrum currently held by the Applicants.¹ As explained below, T-Mobile’s recent actions relating to current and planned use of its AWS spectrum raise substantial and material questions of fact that preclude grant of the Application. More specifically, T-Mobile’s practice of knowingly using its AWS licenses in a manner that causes harmful interference to other authorized spectrum users calls into question whether T-Mobile will use the spectrum rights it will acquire through the proposed transactions in a manner that serves the public interest. Moreover, T-Mobile’s practice of causing harmful interference and ignoring its obligations to

¹ A complete list of the Applications is set forth in Exhibit 1 hereto.

mitigate that interference raises questions as to T-Mobile's character qualifications.

Accordingly, the Application should be denied or designated for a hearing.²

I. BACKGROUND

SiriusXM provides audio programming services to over 28 million subscribers and plays an important role in the national media and the exchange of diverse content and viewpoints. SiriusXM also plays a key role in the dissemination of emergency alerts and in providing other weather and public safety-related information both to its subscribers and to non-subscribers with satellite radios. Subscribers access the company's satellite radio services through a variety of radiofrequency ("RF") receivers, including those factory-installed in vehicles manufactured by every major car company in the U.S. In fact, SiriusXM receivers are installed in approximately seventy percent of all new cars, and have been installed in an estimated seventy million vehicles on the road today.

SiriusXM subscribers have recently begun experiencing harmful interference to their satellite radio reception in select large urban markets. This interference—which can be severe, completely blocking reception of the service—became noticeable only after T-Mobile deployed its AWS network in those markets. Through initial testing, SiriusXM identified T-Mobile AWS base stations as the primary contributors to this interference, because they

² While at one time it appeared that a meeting to discuss the interference T-Mobile is causing would be held around the time the Application came off public notice, this no longer appears to be the case. SiriusXM submits this Objection at the earliest possible time thereafter, and before the anticipated date of initial Commission action with respect to the Application. 47 C.F.R. § 1.948(j)(1)(iv). The Commission will consider informal objections of this type where the public interest warrants it. *See, e.g., AT&T Inc. and DIRECTV*, MB Docket No. 14-90, FCC 15-94 ¶ 31 n.90 (2015); *Wireless Telecommunications, Inc.*, 24 FCC Rcd 3162, at ¶ 11 (2009); *see also* 47 C.F.R. § 1.41 (allowing parties to file informal objections).

produce extremely high power-density levels at the street level.³ These power-density levels are as much as 14 dB greater than those produced by other wireless carriers in AWS or any other spectrum bands used for mobile broadband service. Unless remedied, this interference problem will worsen as T-Mobile continues to implement its AWS network by constructing and activating facilities in additional markets, likely including facilities in the service areas and using the frequencies covered by the licenses at issue in the Application.

SiriusXM has raised these interference concerns with both T-Mobile and the Commission, explaining that SiriusXM receivers function properly and without interference throughout the continental United States, except in the vicinity of certain T-Mobile AWS base stations. SiriusXM also has emphasized that Commission rules and policies obligate T-Mobile to remedy this issue. In particular, Section 27.64 of the Commission's rules: (i) explicitly directs AWS licensees to resolve incidents of harmful interference through technical means or by negotiating appropriate operating arrangements; (ii) establishes that AWS licensees have a general duty to mitigate harmful interference—even where caused by operations that appear to comply with the Commission's prophylactic service rules; and (iii) authorizes the Commission to modify AWS licenses where "rule-compliant" operations cause such interference.⁴

Although SiriusXM has produced clear evidence showing that T-Mobile's operations cause harmful interference to SiriusXM subscribers, T-Mobile has refused to mitigate

³ Intermodulation occurs when more than one signal is present at a non-linear device and each signal acts as a mixer, generating new frequencies that are mathematical combinations of the two transmitting frequencies. Each intermodulation component that falls into another band elevates the noise floor of that band. In this case, certain AWS and PCS frequencies licensed to T-Mobile create intermodulation interference into satellite radio receivers resulting in muting, preventing any reception of the satellite radio signal.

⁴ 47 C.F.R. § 27.64.

this interference or enter into *bona fide* discussions to explore in good faith mutually acceptable technical solutions. Furthermore, T-Mobile has refused to conduct appropriate tests—or even to provide technical information to SiriusXM—to facilitate the ability of SiriusXM or the Commission to conduct further technical analysis and develop potential mitigation solutions. T-Mobile also has refused to test or even discuss possible solutions in those markets where its AWS network is not yet deployed. Indeed, T-Mobile has flatly refused to take *any* action that potentially could impact its own network—contrary to its clear obligations as a Commission licensee. Instead, T-Mobile has sought to abdicate all responsibility for addressing the harmful interference it is creating, and instead has attempted to shift the blame onto SiriusXM—even though SiriusXM’s receivers are designed to perform better than 3GPP standards (including with respect to out-of-band signal tolerance), and even though the SiriusXM network has successfully operated for almost fifteen years (prior to T-Mobile’s AWS deployment) in the vicinity of mobile wireless base stations without any significant issue.

II. DISCUSSION

Section 310(d) of the Communications Act, as amended, provides that no license may be assigned unless the Commission affirmatively finds that the public interest, convenience, and necessity will be served thereby.⁵ Applicants bear the burden of proving, by a preponderance of the evidence, that the proposed transaction, on balance, serves the public interest.⁶ If the Commission is unable to determine that the proposed transaction serves the public interest for

⁵ 47 U.S.C. § 310(d).

⁶ See, e.g., *AT&T Inc., Leap Wireless International, Inc., Cricket License Co., LLC and Leap LicenseCo, Inc.*, 29 FCC Rcd 2735, at ¶ 13 (2014); *Sprint Nextel Corp. and SoftBank Corp. and Starburst II, Inc.*, 28 FCC Rcd 9642, at ¶ 23 (2013); *Deutsche Telekom AG, T-Mobile USA, Inc., and MetroPCS Communications, Inc.*, 28 FCC Rcd 2322, at ¶ 14 (2013).

any reason, or if the record presents a substantial and material question of fact, Section 309(e) of the Act requires that the application be designated for a hearing.⁷

A. T-Mobile’s Practice of Causing Harmful Interference Raises Questions as to Whether the Proposed Transactions Would Serve the Public Interest

In evaluating any proposed assignment under Section 310(d) of the Act, the Commission must weigh the potential public interest harms of the proposed transaction against the potential public interest benefits.⁸ Among other things, the Commission must assess whether a proposed transaction would facilitate conduct inconsistent with established Commission policy or adversely affect the diversity and quality of existing communications services, including but not limited to broadcast services. Notably, it has long been a basic tenet of national communications policy that “the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public.”⁹

In light of T-Mobile’s recent conduct, grant of the Application demonstrably would *not* serve the public interest, convenience and necessity. At a minimum, substantial and material questions of fact exist that are relevant to assessing the asserted benefits, and that also bear on the likely harms, of the proposed transactions. Thus, under Section 310(d) of the Act, the Commission cannot grant the Application at this time.

In evaluating the Application, the Commission must balance the public interest harms that would flow from the proposed transactions—including but not limited to an increased

⁷ 47 U.S.C. § 309(e).

⁸ See, e.g., *EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation and EchoStar Communications Corporation*, Hearing Designation Order, 17 FCC Rcd 20559, at ¶ 25 (2002) (“*EchoStar-DIRECTV HDO*”).

⁹ *Turner Broadcasting System, Inc. v. FCC*, 512 U.S. 622, 663-664 (1994) (quoting *U.S. v. Midwest Video Corp.*, 406 U.S. 649, 668, n. 27 (1972) (plurality opinion) (quoting *Associated Press v. U.S.*, 326 U.S. 1, 20 (1945))).

risk of harmful interference to satellite radio operations—against any potential public interest benefits. The harms flowing from these transactions would further undermine SiriusXM’s ability to operate as it is licensed to operate, and as its millions of subscribers expect it to operate, and could result in the loss of revenues and other business opportunities. These harms would flow directly from grant of the Application.

More specifically, it is likely that grant of the Application would exacerbate the adverse effects of T-Mobile’s existing noncompliance, facilitate additional noncompliance, and otherwise harm the public interest.¹⁰ In light of T-Mobile’s recent pattern of reticence and legal noncompliance, facilitating T-Mobile’s continued buildout of AWS frequencies by making that buildout more “efficient”¹¹ also would facilitate T-Mobile’s ability to create harmful interference to SiriusXM and its subscribers, including in additional markets that may not currently be receiving interference from T-Mobile’s AWS operations. Notably, the proposed transactions would facilitate T-Mobile’s ability to implement the very type of AWS deployment that is causing harmful interference today.¹²

SiriusXM plays an important role in the national media and the exchange of diverse content and viewpoints. T-Mobile’s AWS wireless network deployments threaten SiriusXM’s ability to serve in this capacity, as well as SiriusXM’s continued ability to provide emergency alerts and other public safety-related information. Further T-Mobile deployments

¹⁰ The Commission should require T-Mobile to explain in detail whether the license “swaps” requested in the Application would exacerbate the interference T-Mobile is causing to SiriusXM. The limited availability of public information describing where and how T-Mobile operates its AWS and PCS transmitters, coupled with T-Mobile’s refusal to disclose this information, severely restricts SiriusXM’s ability to perform its own analysis of the impact of the specific “swaps” at issue.

¹¹ Application Narrative at 5.

¹² *Id.*

consequently threaten to undermine the Commission's policy to ensure widest possible dissemination of information from diverse and antagonistic sources, and thus serve the public interest. Accordingly, the Commission cannot and should not grant the Application.

B. T-Mobile's Practice of Causing Harmful Interference and Ignoring Its Obligations To Mitigate that Interference Raises Questions as to T-Mobile's Character Qualifications

Among the factors the Commission considers in its public interest review is whether an applicant has the requisite "citizenship, character, and financial, technical, and other qualifications."¹³ As a threshold matter, the Commission must determine whether the applicants meet the requisite qualifications and requirements to hold and assign licenses under Section 310(d) and the Commission's rules.¹⁴ With respect to Commission-related conduct, the Commission has stated, in its *Character Policy Statement* and elsewhere, that all violations of the Act, or of the Commission's rules or policies, are predictive of an applicant's future conduct, truthfulness and reliability, and thus have a bearing on an applicant's character qualifications.¹⁵

T-Mobile's noncompliance with Commission rules indicates that it lacks the requisite character qualifications to assign, or be assigned, the licenses at issue. As noted above,

¹³ 47 U.S.C. §§ 308, 310(d).

¹⁴ See 47 U.S.C. § 310(d); see also *Comcast Corp., General Electric Co. and NBC Universal, Inc.*, 26 FCC Rcd 4238, at ¶ 276 (2011) ("*Comcast-NBCU Order*"); *General Motors Corp. and Hughes Electronics Corp., and News Corporation*, 19 FCC Rcd 473, at ¶ 18 (2004) ("*News Corp.-Hughes Order*"); *EchoStar-DIRECTV HDO* ¶ 28.

¹⁵ See *Character Qualifications in Broadcast Licensing*, 102 FCC.2d 1179, at ¶ 57 (1986) ("[W]e find it appropriate and sufficient to treat any violation of any provision of the Act, or of our Rules or policies, as possibly predictive of future conduct and, thus, as possibly raising concerns over the licensee's future truthfulness and reliability, without further differentiation); see also, e.g., *Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings LLC*, 23 FCC Rcd 17444, at ¶ 32 (2008). The Commission uses its character policy in the broadcast area as guidance in resolving similar questions in transfer of common carrier authorization and other license transfer proceedings. *MCI Telecommunications Corp.*, 3 FCC Rcd 509, 515 n.14 (1988).

T-Mobile's existing AWS operations are causing harmful interference to SiriusXM's satellite-delivered service in several urban markets. T-Mobile is aware of this interference but refuses to take any action to address or mitigate it. Furthermore, T-Mobile refuses even to take actions that might allow SiriusXM or the Commission to more fully evaluate the nature of the interference and develop technical solutions to address it.

As a Commission licensee, T-Mobile is fully aware of its obligations to mitigate this interference under the Commission's rules generally and Section 27.64 specifically. Notwithstanding such knowledge, T-Mobile has chosen to willfully ignore those obligations at the expense of SiriusXM and its subscribers. This pattern of knowing noncompliance and disregard for its obligations strongly suggests that T-Mobile lacks the requisite character qualifications to serve as a Commission licensee. Accordingly, the Commission cannot and should not grant the Applications.

* * * * *

As discussed above, T-Mobile has established a pattern of using its AWS licenses to cause interference into other authorized spectrum users and ignoring its obligations as a Commission licensee to mitigate that interference. This conduct demonstrates that grant of the Application would not serve the public interest, convenience and necessity. At a minimum, substantial and material questions of fact exist that are relevant to an assessment of the asserted benefits, and that also bear on the likely harms, of the proposed transactions. For these reasons, the Application should be denied or designated for a hearing.

Respectfully submitted,

/s/ John P. Janka

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August 11, 2015

DECLARATION

I, Terrence Smith, hereby make the following declarations under penalty of perjury. I understand that this Declaration will be submitted to the Federal Communications Commission.

1. I am Corporate Vice President and Chief Engineering Officer of Sirius XM Radio Inc.
2. I have reviewed the foregoing Objection of Sirius XM Radio Inc. and the information contained therein is true and correct to the best of my knowledge, information and belief.



Terrence Smith

Executed August 11, 2015

Exhibit 1

File Number	Assignor	Assignee	Call Sign(s)
0006868438	T-Mobile License LLC	Cellco Partnership	KNLG370, KNLG399, WQCX694, WQGB362, WQGD474, WQGD616, WQJF365, WQPZ994, WQPZ999
0006868544	T-Mobile License LLC	Cellco Partnership	WQGA731, WQGB363, WQGB376, WQGB377, WQGB378, WQGD585, WQKF358
0006867476	T-Mobile License LLC	Fresno MSA Limited Partnership	KNLG354
0006867520	T-Mobile License LLC	GTE Mobilnet of California Limited Partnership	KNLF565
0006867447	T-Mobile License LLC	GTE Wireless of the Midwest Incorporated	KNLG706, KNLF900
0006867467	T-Mobile License LLC	GTE Mobilnet of Indiana RSA #6 Limited Partnership	KNLG706
0006867470	T-Mobile License LLC	GTE Wireless of the Midwest Incorporated	KNLG800
0006867545	T-Mobile License LLC	Verizon Wireless Personal Communications LP	KNLF964
0006867559	T-Mobile License LLC	Verizon Wireless Personal Communications LP	KNLG239
0006868798	Cellco Partnership	T-Mobile License LLC	KNLG206, KNLG754, KNLG829, WQEM929
0006869754	Cellco Partnership	T-Mobile License LLC	WQGA715, WQGA717, WQGA718, WQGB383, WQGB384, WQGB385, WQPW449, WQPZ950
0006869768	Fresno MSA Limited Partnership	T-Mobile License LLC	KNLH441
0006869777	GTE Mobilnet of California Limited Partnership	T-Mobile License LLC	KNLG359
0006869790	GTE Mobilnet of Indiana RSA #6 Limited Partnership	T-Mobile License LLC	WQOQ729
0006869871	GTE Wireless of the Midwest Incorporated	T-Mobile License LLC	WPQN807
0006869873	Verizon Wireless Personal Communications LP	T-Mobile License LLC	KNLF246

CERTIFICATE OF SERVICE

I, Jarrett S. Taubman, hereby certify that on this 11th day of August, 2015, I caused a true and correct copy of the foregoing “Objection of Sirius XM Radio Inc.” to be served upon the following, via first-class mail, postage prepaid:

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