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REDACTED – FOR PUBLIC INSPECTION

By ECFS

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: *In the Matter of Protecting and Promoting the Open Internet*, GN Docket No. 14-28: AT&T Paperwork Reduction Act Comments (OMB Control No. 3060-1158

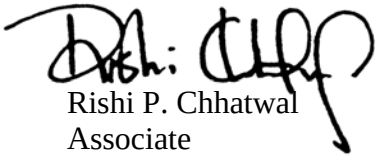
Dear Ms. Dortch:

On behalf of AT&T, please find attached a *redacted* public version of AT&T's Paperwork Reduction Act Comments, submitted in the above-referenced docket.

One original and four copies of the *confidential* version of AT&T's Paperwork Reduction Act Comments along with a Statement pursuant to 47 C.F.R. § 0.459(b), as well as copies of the *redacted* version of AT&T's Comments, have been concurrently filed via hand delivery.

Please do not hesitate to contact me at (202) 736-8384 if you have any questions regarding this submission.

Regards,



Rishi P. Chhatwal
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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Protecting and Promoting the Open Internet	)	GN Docket No. 14-28
	)	OMB Control No. 3060-1158
	)	

PAPERWORK REDUCTION ACT COMMENTS OF AT&T

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July 20, 2015

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PAPERWORK REDUCTION ACT COMMENTS OF AT&T

AT&T Inc. ("AT&T"), on behalf of itself and its affiliates, respectfully submits these comments responding to the Commission's *Notice*[1] under the Paperwork Reduction Act ("PRA")[2] relating to the *2015 Open Internet Order*.[3]

INTRODUCTION AND SUMMARY

The *2015 Open Internet Order* is one of the most sweepingly broad orders in Commission history. In a major section of that *Order*, the Commission adopted a host of new information collections as part of its "transparency" rules, requiring broadband providers to collect and report a wide variety of new data and metrics and modifying prior rules to require the reporting of data in new forms, in new geographic areas, and/or with greater frequency. It should be obvious that the adoption of so many new collections will require broadband providers to devote substantial resources to the collection of the relevant data, engaging the time of engineers, technical analysts, IT professionals, and outside vendors (such as companies that

[1] Information Collection Being Reviewed by the Federal Communications Commission, 80 Fed. Reg. 29000 (rel. May 20, 2015) ("*PRA Notice*").

[2] 44 U.S.C. §§ 3501-20.

[3] Report and Order on Remand, Declaratory Ruling, and Order, *In the Matter of Protecting and Promoting the Open Internet*, 30 FCC Rcd. 5601 (2015) ("*2015 Open Internet Order*").

perform drive testing). To facilitate Office of Management and Budget ("OMB") review of this broad new set of collections, therefore, one would have expected the Commission to issue a robust public notice for this initial round of comment, which would have – as the PRA and OMB's implementing rules require – identified the collections for which the Commission is seeking approval, explained the Commission's estimate of the burden for each collection, and, consistent with President Obama's Executive Order 13563, included some analysis weighing the "benefits and costs, both quantitative and qualitative."[4]

The actual notice falls astonishingly short of what is required. The Commission's entire analysis consists only of its bottom-line, aggregate answers: "*Number of Respondents and Responses*: 3,188 respondents; 3,188 responses. *Estimated Time per Response*: 28.9 hours (average). . . . *Total Annual Burden*: 92,133 hours. *Total Annual Cost*: $640,000."[5] These estimates are absurd on their face. With a total cost of $640,000 and 3,188 respondents, the Commission is estimating that it will cost each company an average of *$200* – that is not a misprint – to comply with *all* of the *2015 Open Internet Order*'s new collections. Moreover, given that the Commission estimates the collections will take 28.9 hours per company to complete, the Commission is assuming that the mythical engineers and other employees performing these tasks are being paid about $6.95 per hour – well below the federal minimum wage. These estimates are so far below any range of plausibility that they cannot even be taken seriously as a legitimate PRA analysis. No reasonable OMB would approve these collections

[4] Executive Order 13563, *Improving Regulation and Regulatory Review* (Jan. 18, 2011), *available at* https://www.whitehouse.gov/the-press-office/2011/01/18/executive-order-13563-improving-regulation-and-regulatory-review ("Executive Order 13563") (agencies must "use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible."). *See also* 44 U.S.C. § 3512; *Saco River Cellular, Inc. v. FCC*, 133 F.3d 25, 29-31 (D.C. Cir. 1998) (without OMB approval, an agency's data collection requests need not be followed).

[5] *PRA Notice* at 29001.

based on such facially absurd burden estimates.[6]

The *PRA Notice* here is so legally deficient that interested parties have effectively been denied any meaningful opportunity to comment.[7] The PRA and OMB's implementing rules require the Commission's public notice in this round to (1) identify the collections for which it is seeking approval; (2) estimate the burden imposed by *each* collection; and (3) justify the practical utility of the data collected.[8] The Commission has not come close to satisfying any of these requirements. It has not specifically identified the collections for which it is seeking approval. The Commission is presumably seeking approval for collections adopted in certain paragraphs of the *2015 Open Internet Order* listed in the Federal Register publication of that order;[9] but even if that is the case, the Commission has never defined the key terms in those collections or explained how it expects broadband providers to report the information, and those ambiguities are important because the burdens could vary dramatically depending on exactly what the collection entails. The Commission has not broken out what it believes the burden will be for each collection at issue; indeed, it has not even explained how it calculated the aggregate burden for all of the collections. And the *PRA Notice* is silent on the expected benefits of any of

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[6] *See, e.g.*, Disposal of National Forest Timber – Timber Export and Substitution Restrictions, ICR Ref. No. 199508-0596-001 (Sept. 29, 1995) *available at* http://www.reginfo.gov/public/do/DownloadNOA?requestID=121756 (rejecting PRA submission because agency "appears to have grossly underestimated the burden hours").

[7] Collection of Economic and Regulatory Impact Support Data under RCRA, ICR Ref. No. 199709-2050-001 (May 5, 1998) *available at* http://www.reginfo.gov/public/do/DownloadNOA?requestID=28005 (rejecting PRA submissions where "the generality of the Agency's description of the proposed collection is such that it would be difficult for a member of the public to provide meaningful comments on it").

[8] *See* Section I.A, *infra*.

[9] Final Rule, *Protecting and Promoting the Open Internet*, 80 Fed. Reg. 19737, ¶ 584 (rel. Apr. 13, 2015) ("*2015 Final Rule*") ("the modified information collection requirements in paragraphs 164, 166, 167, 169, 173, 174, 179, 180, and 181 of this document are not applicable until approved by the Office of Management and Budget (OMB)").

these collections. With a public notice this devoid of content, interested parties have almost nothing on which to comment, and the Commission will not receive any useful feedback as it prepares its submissions to OMB.

In all events, the Commission's $200-per-provider estimate is obviously too low by far. Although the Commission has not defined the scope of the new collections well enough for anyone to make a reasonably precise estimate, the true cost to implement all of the *2015 Open Internet Order*'s new transparency rule collections will likely be millions, if not tens of millions, of dollars for AT&T alone, depending on how the new requirements are ultimately interpreted, and many times more for the industry as a whole. The enormous gulf between the Commission's low-ball estimate and the true cost can be seen by examining the likely impact of only three new collections in the Network Performance category of disclosures: (1) the requirement to report all network performance metrics (speed, latency, and packet loss) on a more geographically granular basis; (2) the new requirement to report packet loss metrics; and (3) the requirement to report these metrics "during times of peak usage." Even if the Commission construes these requirements in a way that minimizes their burdens, each one could cost AT&T more to implement than the Commission's estimate of the industry-wide total – even though none of these three requirements will have any significant "practical utility" for consumers or edge providers.

For example, as explained in more detail below and in the Declaration of Dr. Fahmy,[10] depending on how granular the Commission expects providers to report performance metrics, the costs to gather such metrics would range from substantial to astronomical. These millions of dollars of expenses are unnecessary, however, as consumers can already obtain far more

[10] *See* Declaration of Dr. Hany Fahmy (July 20, 2015), attached hereto as Attachment A ("Fahmy Decl.").

localized and real-time data for these metrics from third party sources. Similarly, AT&T's drive testing does not currently gather packet loss data and thus it would have to incur substantial costs to upgrade its current drive testing programs and devote additional engineering resources to analyzing and reporting the results. Consumers will not find such metrics useful, however, because such metrics depend on the specific end-points of the test and the methodology used by the tester, which means that such metrics would provide little information about the packet loss any particular customer will likely experience, nor will they facilitate apples-to-apples comparisons. A requirement to report metrics at times of peak usage will also require AT&T to devote substantial resources both to determine when such times occur (for mobility, peak times vary from residential districts, to business districts, to arenas, to airports, and so on) and then to perform the engineering analyses (and possibly increase drive testing at substantial expense, depending on how the requirements are defined). It will not be practical to take such measurements at the small geographic levels for which variations in peak usage exist, and taking such measurements for larger areas (*e.g.*, at the Cellular Market Area ("CMA") level) would mask any meaningful differences, making such measurements of little or no use to consumers or edge providers.

To comply with the statute and OMB regulations, the Commission must start over and issue a new notice that meets the requirements of the PRA. In addition, the Commission should take this opportunity, as it did with the 2010 transparency rules, to issue clarifications that would reduce clearly unnecessary industry burdens. Specifically, as explained below, the Commission should: (1) postpone any enforcement of the new collections as they relate to mobile wireless services until the planned Measuring Broadband America ("MBA") program for mobile services is in place and available as a safe harbor, to avoid forcing mobile providers to incur substantial

expenses implementing measures that may become moot or unnecessary; (2) clarify that the Commission will not require providers to report performance metrics for geographic areas smaller than a CMA for wireless services or smaller than a state for wireline services; (3) clarify that the new disclosure requirements do not apply to Wi-Fi; (4) clarify that disclosures relating to "non-Broadband Internet Access Services ("BIAS") data services" may be reported by aggregating similar services; and (5) clarify that broadband providers will be given at least a year from approval to implement the systems necessary to comply with these new collections.

Finally, the Commission should clarify that it did not intend to change its "point of sale" rule in the *2015 Open Internet Order*. In 2011, the Enforcement Bureau issued a guidance document making clear that broadband providers could comply with the rule by directing prospective customers to a website link to the company's disclosures at the point of sale.[11] In footnote 424 of the *2015 Open Internet Order*, however, in a passage purportedly restating existing law, the Commission unexpectedly announced that "[i]t is *not* sufficient for broadband providers simply to provide a link to their disclosures."[12] This footnote thus could be read as a modification of the point-of-sale rule in the *2010 Open Internet Order*. If that is the Commission's intent, the Commission cannot pass this change off as a mere clarification of existing law. If the rule has been modified to require broadband providers to make some or all of the full disclosures at the point of sale (rather than via a link to the website), such a change would impose substantial new burdens on broadband providers, forcing them to incur millions of

[11] Indeed, the Commission's submission to OMB in 2011 made clear that "the *Open Internet Order* requires only that providers post disclosures on their websites, and direct consumers to such websites at the point of sale" – which reinforces that OMB never considered or approved any broader requirement. FCC Supporting Statement OMB 3060-1158, at 5 (September 7, 2011), *available at* http://www.reginfo.gov/public/do/DownloadDocument?documentID=275090&version=1.

[12] *2015 Open Internet Order* ¶ 171 n.424 (emphasis added).

dollars of new compliance costs. And given the absence of any justification whatsoever for such a change, such a new requirement could not possibly survive review under the PRA or the Administrative Procedure Act. Under the circumstances, the Commission should clarify that it did not change its prior holding that broadband providers may satisfy the point-of-sale requirement by providing customers with the link to their broadband disclosures. If the Commission wishes to revisit that requirement, it should do so in a lawful manner and seek comment on whether the existing rule is fulfilling its intended purpose as well as on the costs and benefits of alternative approaches.

I. THE COMMISSION'S *PRA NOTICE* IS DEFICIENT AND IN ALL EVENTS GROSSLY UNDERESTIMATES THE BURDENS ASSOCIATED WITH THE PROPOSED INFORMATION COLLECTIONS.

The *PRA Notice* is deficient and grossly underestimates the burdens that these new collections will impose on the industry. As shown below: (1) the *PRA Notice* does not meet the basic legal standards requiring an explanation of how the Commission calculated its burden estimates or the expected "practical utility" of the data collected, and thus risks rejection by OMB on that ground alone; (2) the actual estimate of the burden is absurdly low, as can be shown simply by looking at the cost to implement merely a subset of the new Network Performance disclosure requirements; and (3) the Commission should take this opportunity to start over and issue clarifications, as it did for the 2010 transparency rules, that would eliminate some of the largest and most unnecessary burdens that these new collections could potentially impose.

A. The *PRA Notice* Is Deficient Because It Fails To Identify The Information Collections For Which The Commission Is Seeking OMB Approval.

The Commission's *PRA Notice* does not meet the most basic requirements of the PRA. The PRA was enacted to "minimize the paperwork burden" of federal data collection efforts,[13] and thus Congress required agencies to obtain OMB approval before any submission of information can be enforced.[14] OMB, in turn, must not approve any proposed information collection unless it determines that the collection is "necessary" for the "proper performance of the functions of the agency, including whether the information shall have practical utility."[15] The PRA defines "practical utility" as "the ability of an agency to use information, particularly the capability to process such information in a timely and useful fashion."[16] OMB's regulations further provide that "[p]ractical utility means the actual, not merely the theoretical or potential, usefulness of information to or for an agency, taking into account its accuracy, validity, adequacy, and reliability, and the agency's ability to process the information it collects . . . in a useful and timely fashion."[17]

To facilitate OMB review, the PRA requires each agency to "provide 60-day notice in the Federal Register, and otherwise consult with members of the public . . . concerning each

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[13] *Tozzi v. EPA*, 148 F. Supp. 2d 25, 38 (D.D.C. 2001); 44 U.S.C. § 3501(1).

[14] *See* 44 U.S.C. § 3512; *see also Saco River Cellular*, 133 F.3d at 29-31 (without OMB approval, an agency's data collection requests need not be followed).

[15] 44 U.S.C. § 3508; *see also Tozzi*, 148 F. Supp. 2d at 38 ("The OMB must determine whether the [information collection] request is necessary to enable the agency to function and of public utility.").

[16] 44 U.S.C. § 3502(11).

[17] 5 C.F.R. § 1320.3(l). *See also id.* ("In determining whether information will have 'practical utility,'" OMB must "take into account whether the agency demonstrates actual timely use for the information . . . to carry out its functions.").

proposed collection of information, to solicit comment"[18] before the agency submits the proposed collections to OMB. The PRA and its implementing rules require the Commission to develop "a functional description of the information to be collected,"[19] and its Federal Register notice must set forth "a summary of the collection of information."[20] The Federal Register notice also must contain "an estimate of the burden that shall result from the collection of information" so that interested parties can comment on this estimate.[21] A burden estimate must be provided for *each* proposed information collection (not all collections in the aggregate) and must be "objectively supported."[22] The Federal Register notice must provide sufficient information to allow interested parties to "[e]valuate the accuracy of the agency's estimate of the burden of the proposed collection of information, *including the validity of the methodology and assumptions used*."[23]

OMB has rejected agency PRA submissions on the grounds that "[t]he generality of the

[18] 44 U.S.C. § 3506(c)(2)(A); 5 C.F.R. § 1320.8(d)(1).

[19] 44 U.S.C. § 3506(c)(1)(A)(ii); 5 C.F.R. § 1320.8(a)(2).

[20] 44 U.S.C. § 3507(a)(1)(D)(ii)(II); 5 C.F.R. § 1320.5(a)(1)(iv)(B)(2).

[21] 44 U.S.C. § 3507(a)(1)(D)(ii)(V); 5 C.F.R. § 1320.5(a)(1)(iv)(B)(5).

[22] 5 C.F.R. § 1320.8(a)(4).

[23] *Id.* at § 1320.8(d)(1)(ii) (emphasis added). The rules define "burden" broadly (the "total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information") and the burden estimate must account for:

> (i) [r]eviewing instructions; (ii) [d]eveloping, acquiring, installing, and utilizing technology and systems for the purpose of collecting, validating, and verifying information; (iii) [d]eveloping, acquiring, installing, and utilizing technology and systems for the purpose of processing and maintaining information; (iv) [d]eveloping, acquiring, installing, and utilizing technology and systems for the purpose of disclosing and providing information; (v) [a]djusting the existing ways to comply with any previously applicable instructions and requirements; (vi) [t]raining personnel to be able to respond to a collection of information; (vii) [s]earching data sources; (viii) [c]ompleting and reviewing the collection of information; and (ix) [t]ransmitting, or otherwise disclosing the information.

Id. at § 1320.3(b).

Agency's description of the proposed collection is such that it would be difficult for a member of the public to provide meaningful comment on it."[24] OMB has explained that "[t]he Agency is required by the PRA to solicit comment from the public prior to any collection of information in order to evaluate the practical utility and burden of the collection" and that an agency's submission fails to comply with that requirement when it does "not describe its information collection plan sufficiently to allow evaluation of practical utility, burden, and necessity in the following ways: 1) [it] does not specify the information to be collected or the methods used for collecting information, 2) [it] does not clearly identify the respondent groups with specificity necessary to provide adequate notice and opportunity to comment."[25]

In short, the Commission's public notice must meet at least three very simple requirements: it must (1) identify each information collection for which it seeks OMB approval; (2) provide an "objectively supported" burden estimate that includes sufficient information to allow interested parties to evaluate "the validity of the methodology and assumptions used"; and (3) demonstrate and justify the "practical utility" of each proposed information collection. The Commission's bare-bones *PRA Notice* does not come close to meeting any of these requirements.

Identification of the Collections. The Commission is required to provide a "functional

[24] Collection of Impact Data on Technical Information: Request for Generic Clearance, Design for the Environment (DfE), ICR Ref. No. 199907-2070-002 (Feb. 2, 2000) *available at* http://www.reginfo.gov/public/do/DownloadNOA?requestID=29362 ("DfE Clearance Submission"). *See also* Reporting Requirements under the Regulations Governing Inspection and Certification of Processed Fruits and Vegetables and Related Products, ICR Ref. No. 200110-0581-004 (Feb. 13, 2002) *available at* http://www.reginfo.gov/public/do/DownloadNOA?requestID=3591 (OMB rejecting an agency's PRA submissions for "fail[ing] to provide the public with a description of the proposed information collection that would allow for meaningful public comment in both their 60 day and 30 day federal register notice").

[25] *See* DfE Clearance Submission.

description" of "each proposed collection."[26] The *PRA Notice*, however, contains a single sentence that says only that the Commission is seeking approval for "[t]he rules adopted in" the *2015 Open Internet Order* that "require all providers of broadband Internet access service to publicly disclose accurate information regarding the network management practices, performance, and commercial terms of their broadband Internet access services sufficient for consumers to make informed choices regarding use of such services and for content, application, service, and device providers to develop, market, and maintain Internet offerings."[27] This broad and imprecise description does not qualify as a "functional description" of "each collection" for which the Commission is seeking approval and commenters can only guess at which of the dozens of new collections in the lengthy *2015 Open Internet Order* are covered by the public notice.

For further clues, interested parties are apparently expected to consult the version of the *2015 Open Internet Order* published in the Federal Register.[28] In that "Final Rule" publication, the Commission included the same generic description of the collections, but also identified the paragraphs containing the new collections that it believes fall within that description: "the modified information collection requirements in paragraphs 164, 166, 167, 169, 173, 174, 179, 180, and 181 of this document are not applicable until approved by the Office of Management and Budget (OMB)."[29] Although the Commission still has never specifically identified which information collections in these paragraphs it thinks require OMB approval, these paragraphs must necessarily constitute the maximum possible universe of collections that the *PRA Notice*

[26] 44 U.S.C. §§ 3506(c)(1)(A)(ii) & 3506(c)(2)(A); 5 C.F.R. §§ 1320.8(a)(2) & 1320.8(d)(1).

[27] *PRA Notice* at 29001.

[28] *2015 Final Rule* ¶ 584. The transparency rules are discussed and set forth in paragraphs 154-85 of the *2015 Open Internet Order.*

[29] *2015 Final Rule* ¶ 584.

can reasonably be interpreted to cover, since the Commission has not identified any other collections that fall within the *PRA Notice*.

But even if the *PRA Notice* is intended to cover all of the collections in each of the paragraphs listed in the published version of the *2015 Open Internet Order*, the descriptions in those paragraphs are hopelessly vague and thus do not provide a "functional description" of "each" collection. The descriptions of the information collections in these paragraphs are open to a wide range of interpretations, and the burdens would vary dramatically depending upon how the collections are defined. To take just one example, paragraph 166 of the *2015 Open Internet Order* requires, among other things, that broadband Internet access service providers collect and disclose "actual data on performance of their networks representative of the geographic area in which the consumer is purchasing service."[30] The Commission has never explained what it means by "geographic area," but as shown below, the burdens associated with this new requirement could be massive depending upon the granularity with which the "geographic area" is defined. Interested parties cannot possibly provide meaningful comment on the Commission's proposed new collections if those parties do not even know what those collections are.

Estimate of the Burden. The Commission is also required to provide sufficient information in the notice to allow interested parties to evaluate the Commission's burden estimate, "including the validity of the methodology and assumptions used."[31] The Commission's estimate must comprehensively account for the total time, money, and effort of responding to the information collection.

The *PRA Notice* does not remotely satisfy these requirements. The *PRA Notice* merely sets forth three aggregate numbers with no explanation as to how they were computed: (1) the

[30] *2015 Open Internet Order* ¶ 166.

[31] 5 C.F.R. § 1320.8(d)(1)(ii).

Commission's estimate that there will be 3,188 responses; (2) the Commission's estimate that each response will take an average of 28.9 hours to complete (for a total of 92,133 hours, 28.9 x 3,188 responses); and (3) the Commission's estimate that the industry-wide total annual costs imposed by the collections will be $640,000.[32] The *PRA Notice* does not disclose the methodology or assumptions used to compute these numbers, nor does it break out the aggregate burden estimates as to each individual new data collection, as the statute requires.[33] The OMB has expressly rejected PRA submissions where "the generality of the Agency's description of the proposed collection is such that it would be difficult for a member of the public to provide meaningful comments on it," and has noted that "[t]his is of special concern [where] the data gathered under th[e] collection is likely to be used for regulatory development, in which there is inherent public interest."[34]

It is essential that the Commission show its work. Without a description and explanation as to how the Commission derived its estimates, commenters cannot provide meaningful feedback on them. The required explanation is especially important here, because the aggregate estimates provided in the *PRA Notice* are facially absurd. The Commission may not want to try to explain how it arrived at these estimates, but that does not excuse it from complying with its statutory duty in this important round of public comment. As OMB has explained, PRA submissions will be rejected when the agency "appears to have grossly underestimated the

[32] *PRA Notice* at 29001.

[33] *See* 44 U.S.C. § 3507(a)(1)(D)(ii)(V) (Federal Register notice must contain "an estimate of the burden that shall result from *the* collection of information") (emphasis added).

[34] Collection of Economic and Regulatory Impact Support Data under RCRA, ICR Ref. No. 199709-2050-001 (May 5, 1998) *available at* http://www.reginfo.gov/public/do/DownloadNOA?requestID=28005.

burden."[35]

Notably, the black-box estimates in the *PRA Notice* stand in stark contrast to the explanations the Commission provided during the PRA review of the information collections in the *2010 Open Internet Order*. There, the Commission made available to commenters a multiple page document that described how it calculated the burden estimate in its Federal Register notice and the assumptions it made in doing so.[36] This enabled commenters to focus their analyses on the Commission's actual assumptions and methodologies, as contemplated by the rules. Here, however, the Commission has declined to provide such documentation to commenters, leaving them without any real basis to comment on the estimates.

Explanation of "Practical Utility." Just as the statute requires the Commission to explain its estimates of the burdens, the Commission is also required to explain what "practical utility" these collections have that would justify the imposition of those burdens. Given that the *PRA Notice* does not even specify the collections for which the Commission is seeking approval, it

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[35] Disposal of National Forest Timber – Timber Export and Substitution Restrictions, ICR Ref. No. 199508-0596-001 (Sept. 29, 1995) *available at* http://www.reginfo.gov/public/do/DownloadNOA?requestID=121756 ("The Forest Service appears to have grossly underestimated the burden hours. For example, the justification mentions 16 hours of burden time for the preparation of sourcing area applications and 3 hours for the preparation of annual reports. These burden hours do not appear to have been added into the total burden hours."); *see also* National Fire Incident Reporting System (NFIRS), ICR Ref. No. 199908-3067-002 (March 3, 2000) *available at* http://www.reginfo.gov/public/do/DownloadNOA?requestID=38175 ("This collection is disapproved based on the following factors: … No documentation is included to account for training, information technology, or State resources necessary to participate in this collection. A burden figure of $1.6 is asserted, but not supported, and is not included in the total annual cost burden.").

[36] *See* PRA Calculations for Disclosure of Network Management Practices, *Preserving the Open Internet and Broadband Industry Practices Report and Order*, GN Docket No. 09-191 and WC Docket No. 07-52 (Feb. 2011), attached as Exhibit B to Comments of the National Cable & Telecommunications Association, *Preserving the Open Internet, Broadband Industry Practices, Notices of Public Information Collection*, GN Docket No. 09-191, WC Docket No. 07-52 (Apr. 11, 2011).

should not be surprising that it fails to provide any explanation of the practical utility for any of the collections either. This failing is particularly egregious given the Commission's determination to adhere to President Obama's Executive Order, which places particular emphasis on imposing the smallest burdens necessary taking into account the expected benefits of the collection, both "quantitative and qualitative."[37] Because the Commission has made no effort to calculate the actual burdens or benefits of any specific collection, the Commission is evading the whole point of the PRA, which is to force agencies to grapple with and demonstrate that the collections it seeks to impose have a real net social benefit.

B. The *PRA Notice* Is Deficient Because Its Burden Estimate Is Vastly Understated.

The Commission's burden estimates are so low they have no credibility. Assuming the Commission is seeking comment on the information collections mentioned in the paragraphs identified in the Federal Register publication of the *2015 Open Internet Order*, those collections would require AT&T and other providers to, among other things, develop new systems and software; collect, analyze, and verify vast amounts of new data; train thousands of employees and contractors; install new equipment in dozens of vehicles used for drive testing AT&T's network and potentially add thousands of miles to existing drive test routes; and numerous other costly initiatives.[38] The Commission contends that the total cost to the industry to implement these new requirements would be $640,000. Since the Commission is assuming there are 3,188 broadband providers, the Commission is therefore estimating that the average *total* cost for a

[37] *See* Executive Order 13563.

[38] Fahmy Decl. ¶ 3.

single company to implement *all* of the new requirements would be *$200 per year*.[39]

These cost determinations are absurd on their face, and OMB could not reasonably approve these new collections based on such miniscule estimates of the burden. Indeed, as shown in the attached Declaration of Dr. Fahmy, just three of the new network performance disclosure requirements – those relating to (1) geographic reporting, (2) packet loss, and (3) average metrics for peak periods – would cost millions of dollars to implement and potentially tens of millions of dollars, depending on how they are ultimately defined.[40] The Commission cannot justify imposing these substantial burdens on the industry under the PRA, especially given that – as shown below – none of these requirements has any "practical utility" within the meaning of the PRA.

More Granular Geographic Reporting. The *2015 Open Internet Order* requires speed, latency, and packet loss to be collected and reported at geographic levels more granular than the current nationwide reporting: "We expect that disclosures to consumers of actual network performance data should be reasonably related to the performance the consumer would likely experience in the geographic area in which the consumer is purchasing service."[41] These new requirements will be very costly to implement, with no offsetting benefits.

First, the Commission has never explained what it means by "the geographic area in which the consumer is purchasing service." That phrase could be defined a million ways, from individual locations to multi-state regions. Obviously, if the Commission were to define the requirement at significantly granular, sub-market levels such as census blocks or cell sites, the

[39] Given that the Commission proposes that these tasks will take no more than about 28 hours to complete, it is also necessarily assuming that these tasks will be performed by employees making less than $7.00 per hour on average over three and a half work days.

[40] Fahmy Decl. ¶ 4.

[41] *2015 Open Internet Order* ¶ 166.

resulting information collection would quickly become astronomically and prohibitively expensive.[42] But even if the "geographic area" is defined as a larger area, the burden of computing each of the performance metrics for a large number of new areas would be many millions of dollars.[43]

For its mobility network, AT&T obtains these data from drive testing. Today, AT&T conducts drive tests covering most of the U.S. population to obtain actual national average speed and latency metrics.[44] As explained by Dr. Fahmy, depending on the geographic granularity of the new collection requirements, AT&T would have to devote substantially greater resources for additional drive testing and engineering hours to develop performance metrics for each of the new geographic areas.[45]

These additional burdens are likely to be very costly. If the Commission chooses any geographic area smaller than a CMA, AT&T's engineers would have to perform new calculations for hundreds (and potentially thousands) of new, smaller areas of interest.[46] Each new geographic area carries with it a multiplier effect, because engineers must calculate, for each of these smaller areas, speed, latency *and* packet loss; uplink *and* downlink; average and peak; and they must do so for each technology (*e.g.*, LTE, HSPA+, HSPA) – resulting in thousands of additional calculations.[47] These burdens would be subject to further multiplier effects if the Commission is now requiring these new collections to be updated one or more times during the

[42] *Cf.* Fahmy Decl. ¶ 31.

[43] Fahmy Decl. ¶¶ 30-40.

[44] *Id*. ¶ 32.

[45] *Id*. ¶¶ 33-39.

[46] *Id*. ¶¶ 34-36.

[47] *Id*. ¶ 33.

year.[48] In addition, AT&T would have to conduct substantial additional drive testing, for two reasons: (1) AT&T's current drive tests may not produce enough data points to estimate statistically significant average performance metrics for the small geographic areas that may be required, and (2) the Commission's new collections may require AT&T to expand drive testing to additional areas not currently covered.[49] The burdens associated with these more geographically granular reporting requirements alone, even if the geographic areas are relatively large, would run well into the millions of dollars annually – vastly greater than the Commission's facially absurd estimate of $200 *for everything*.[50] On the other hand, as the geographic areas become larger – as they will have to in order to avoid imposing extraordinary costs on providers – there will be significantly less variation in the performance metrics, undermining their usefulness.

Another facet of mobile services implicated by the disclosure requirements are Wi-Fi services. Providers are increasingly relying on Wi-Fi networks to support their traditional mobile service platforms, and even integrating Wi-Fi into their platforms. For example, the "Project Fi" joint initiative with Google, Sprint, and T-Mobile is expected to allow customers to seamlessly switch between Wi-Fi and mobile networks. To the extent the new transparency disclosures – especially those that require actual performance measures at granular levels – apply to Wi-Fi services, such requirements raise significant burden issues. As explained by Dr.

[48] *See* Fahmy Decl. ¶ 33. Moreover, as described further below, providers today use different equipment and methodologies for computing performance metrics. To enable apples-to-apples comparisons of these metrics, the Commission would have to require providers to use identical equipment and methodologies. But such micro-management would require most providers to completely change their current approaches, which would impose yet another large burden on providers. Fahmy Decl. ¶ 42.

[49] Fahmy Decl. ¶¶ 37-39.

[50] *Id.* ¶¶ 30-39.

Fahmy, drive testing is not feasible (indeed, many Wi-Fi routers are indoors).[51] AT&T has investigated alternative methods to gather performance metrics for Wi-Fi services, but all are extremely expensive. For example, one approach AT&T has explored is placing a "test probe" at each Wi-Fi location that measures performance of the Wi-Fi network at these locations. But AT&T has tens of thousands of Wi-Fi locations, and initial estimates indicate that deploying and monitoring these probes would cost millions of dollars (not including the costs of analyzing the data collected by those probes to compute the required disclosures).

The millions of dollars of additional burdens associated with requiring more geographically granular data for mobile services would not result in any "practical utility" gains for anyone. First, these reporting requirements will not actually allow anyone to compare speed, latency, or packet loss among different providers at granular levels, because there is no standardized approach to the measurement of these metrics (different providers use different vendors or may do it themselves), and each provider will inevitably calculate these metrics for different geographic areas.[52] The only way to eliminate these issues would be for the Commission to force all providers in the industry to use the same equipment, systems, and methods, but any such requirement would increase the industry-wide costs of these collections by an order of magnitude, by requiring many or most of them to change their current measurement practices.[53]

Second, consumers and edge providers already have a variety of sources for this sort of geographically granular information in the marketplace. For example, Ookla, Root Metrics, Sensorly, Open Signal, and the Commission's Mobile Broadband America application provide

[51] *Id.* ¶ 40.

[52] *Id.* ¶ 42.

[53] *Id.*

users with *current* metrics for speed, latency, and packet loss from any geographic location within AT&T's network.[54] Indeed, the Commission itself has acknowledged that if users want more granular information, there are "[v]arious software-based broadband performance tests . . . available as potential tools for end users and companies to estimate actual broadband performance."[55] These freely available data sources give users far more localized and real-time network performance measurements than they could ever obtain from Commission-mandated macro-reporting requirements. The burdensome geographic reporting proposed here would add no useful information that customers cannot already obtain elsewhere.

Geographically granular reporting requirements will also cost more than $200 per year for wireline providers. Under the 2010 reporting requirements, AT&T engineers use MBA data to compute a single set of "national" performance metrics for the 21 states where AT&T offers wireline broadband Internet access services. Since the *2015 Open Internet Order* makes clear that "[p]articipation in the [MBA] program continues to be a safe harbor for fixed broadband providers in meeting the requirement to disclose actual network performance,"[56] and the most granular data available from the MBA program is state-level data, the new geographic reporting requirement presumably will not require data that is more granular than at the state level. Even so, AT&T would have to devote a substantial amount of additional engineering resources to compute this metric for each of its 21 states.[57]

There is little to be gained from these efforts. As explained by Dr. Fahmy, AT&T has analyzed the data for each of the three performance metrics (speed, latency, and packet loss)

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[54] *Id.* ¶ 43.

[55] *2015 Open Internet Order* ¶ 166 n.411. In addition, numerous publications also provide download speeds at highly disaggregated levels. *See* Fahmy Decl. ¶ 49.

[56] *2015 Open Internet Order* ¶ 166 n.411.

[57] Fahmy Decl. ¶¶ 45-49.

available for AT&T's wireline network from the MBA program for the period from January 2015 through May 2015 (the most recent data available) for all AT&T speed tiers for which data are available from the MBA program. The results of this analysis show that there is little variation in wireline speed or latency within each speed tier offering from state-to-state.[58] In addition, packet loss is generally so low in every state that any variations among states would have no noticeable impact on customers' or edge providers' experience.[59] Accordingly, there is no "practical utility" to these enhanced disclosures, and even if there were, consumers and edge providers already have such metrics available to them from third party sources.[60]

Packet Loss. The *2015 Open Internet Order* now requires broadband providers to include "packet loss" in their network performance disclosures.[61] Adding packet loss measurements to these disclosures would impose very substantial burdens on broadband providers, while providing no useful benefits.

For its mobile broadband network, AT&T would collect packet loss information using drive testing, as it does for other mobile broadband performance metrics. As noted, AT&T currently uses drive testing to measure only speed and latency, not packet loss. Such drive testing entails a substantial cost, involving dozens of vehicles taking measurements in areas covering most of the U.S. population.[62] Once collected, analysts must analyze and verify the data before IT professionals place the information on the AT&T website containing AT&T's

[58] *Id.* ¶ 48.

[59] *Id.*

[60] *See id.* ¶¶ 45-59.

[61] *2015 Open Internet Order* ¶ 166 ("The existing [2010] transparency rule requires disclosure of actual network performance. In adopting that requirement, the Commission mentioned speed and latency as two key measures. Today we include packet loss as a necessary part of the network performance disclosure.").

[62] *See id.* ¶ 10.

transparency disclosures.[63] To add packet loss data to this process, AT&T would either have to install new equipment in all of its vehicles, or install new software in its existing equipment (as explained by Dr. Fahmy, however, this latter approach would mean fewer measurements taken and thus would require additional drive test time to achieve the same sample size).[64] Either option would cost upwards of three quarters of a million dollars – not $200.[65] Adding packet loss data would also necessitate a significant increase in the amount of time engineers and IT professionals must devote to verification and analysis of the drive test data, adding thousands more to the cost.[66] And, depending on how the Commission defines the new requirements relating to geographic granularity and peak period reporting, those costs could increase by many times over.[67]

The addition of packet loss would also increase the cost of disclosures for wireline services. AT&T currently uses the data collected by the Commission's MBA program to estimate the required national speed and latency metrics. Although the MBA program also includes packet loss data, AT&T engineers would be required to analyze the MBA packet loss data to estimate statistically significant national packet loss metrics, and the cost of this additional engineering time would depend on the total number of locations for which average packet loss must be computed; in any event, computing packet loss data would cost tens of

[63] *See id.* ¶ 11.

[64] *See id.* ¶¶ 12-14.

[65] *See id.* ¶¶ 13-14.

[66] *See id.* ¶ 16.

[67] Fahmy Decl. ¶¶ 15, 16-17.

thousands of dollars per year, and these costs would be incurred each time an update to the data must be completed.[68]

The Commission has never offered a good reason to include packet loss data in the transparency disclosures (and the *PRA Notice* is certainly silent on the matter). The *2015 Open Internet Order* merely includes a footnote in which it cites comments from AARP and others arguing that "packet loss could be useful to consumers,"[69] but none of those commenters explained how packet loss would actually be useful to consumers or edge providers. Those comments merely suggested that packet loss might be useful for assessing "delay intolerant applications."[70] As the "expert" agency, the Commission was required to do more than simply accept their claims without any analysis of whether such data would be at all useful, let alone whether the burdens of collecting and disseminating such information outweighed any purported benefit.

The truth is that packet loss metrics have no real "practical utility" for either consumers or edge providers in evaluating service quality or comparing the performance of alternative networks, including for delay intolerant applications.[71] The issue of packet loss implicates certain trade-offs in the way broadband networks are engineered.[72] One of the principal means a provider has for reducing packet loss is to use larger buffers in its routers.[73] The larger the buffer, however, the longer the queue in which packets must wait for delivery to their next

[68] *See id.* ¶ 18.

[69] *2015 Open Internet Order* ¶ 166 n.407.

[70] *Id.*

[71] *See* Fahmy Decl. ¶ 20.

[72] *See id.* ¶¶ 19-27.

[73] *See id.* ¶ 21.

destination (and the slower the service).[74] Thus, there is a trade-off between reduced packet loss and the speed at which packets are transmitted through the network.[75] Given these trade-offs, lower packet loss does not necessarily mean better performance, even for delay intolerant applications.[76] Increasing buffer size to mitigate packet loss will result in higher network delay, which could have a far greater adverse effect on delay intolerant applications (such as frozen frames for significant periods of time).[77]

Equally important, the Commission has never explained how it expects providers to compute and report packet loss metrics. Broadband providers have no ability to directly measure such loss on the other side of a point of interconnection with another network. Consequently, providers can only directly measure packet loss from a point on their own network to a computer or mobile device connected to that network.[78] These "intra-network" packet loss estimates, however, will generally be extremely low for most broadband providers.[79] Packet loss estimates at such low levels would have virtually no noticeable impact on customer experiences, even for

[74] *See id.* ¶¶ 21-23.

[75] *See id.*

[76] *See id.* ¶ 23.

[77] Fahmy Decl. ¶ 23. Indeed, a requirement to report packet loss metrics could have *adverse* unintended consequences; if consumers actually used the reported packet loss statistics to choose service providers, providers would have incentives to increase router buffers to reduce packet loss, even though such practices could result in slower and less optimized Internet routing systems. *Id.* ¶ 27.

[78] Fahmy Decl. ¶¶ 24-25. In addition, there are different technical methods to measure packet loss (for example, based on loss of UDP packets vs. using ICMP pings). *Id.* ¶ 25. Unless the Commission mandates a uniform rule for all providers, these apples-to-oranges comparisons will be confusing and provide no useful information for consumers or edge providers. *See id.* ¶¶ 24-25.

[79] Fahmy Decl. ¶ 24.

delay intolerant applications.[80] Accordingly, differences in intra-network packet loss would almost never be a useful metric for consumers wishing to assess or compare providers.[81]

Even if packet loss metrics were useful to customers or edge providers, there is no need to force providers to incur the substantial costs of developing, collecting and disclosing such metrics. Although these data are of limited use for the reasons set forth above, they are included in metrics reported by some third parties, such as the FCC's MBA applications and Internet Pulse.[82] The new collections for packet loss in the *2015 Open Internet Order* are therefore unnecessary to provide consumers and edge providers with any packet loss data they may find useful.

Peak Usage. The *2015 Open Internet Order* also requires providers to disclose each of the three network performance metrics (speed, latency, and packet loss) "during times of peak usage."[83] For its mobility network, AT&T currently discloses overall averages for speed and latency. To modify these disclosures so that they reflect "times of peak usage" (including packet loss) would be extraordinarily burdensome. Once again, the Commission has not explained what it means by "peak usage" or how it expects providers to calculate such metrics. The times of peak usage vary greatly in different areas of the same city (*e.g.*, downtown vs. residential areas), and thus determining peak usage for different areas would require costly studies, and, depending

[80] *Id.* ¶ 24.

[81] As Dr. Fahmy explains, "inter-network" packet loss metrics, even if they could be measured, would have no practical utility either. Such metrics would be outside the control of any one provider and would not give consumers or edge providers a representative measure, since any one person's "inter-network" packet loss would depend on the vagaries of their specific transmissions across the Internet. *See* Fahmy Decl. ¶ 25.

[82] *See* Fahmy Decl. ¶ 26.

[83] *2015 Open Internet Order* ¶ 166.

on how the Commission defines the requirement, AT&T may also have to expand its drive testing at a cost of potentially more than ten million dollars per year.[84]

Reporting these metrics at times of peak usage would offer no "practical utility." As explained by Dr. Fahmy, variations in peak usage occur at very granular levels (*e.g.*, residential districts versus business districts, and even by cell site), and identifying the peak times for each area and measuring average peak speed, latency and packet loss for these periods in each area is impractical and cost-prohibitive.[85] Rather, peak period metrics could, as a practical matter, only be computed for much broader geographic areas. But at these broader levels, variations in peak usage are masked due to the fact that peak usage occurs at different times of day for different local areas within the larger geographic area being measured. For example, AT&T drive testing data show that the differences in national speed and latency metrics for the time periods from 7 a.m.-9 p.m. (overall average), 12-5 p.m. (more reflective of peak periods in business areas), and 12-9 p.m. (more reflective of peak periods in residential areas) are insubstantial, thus confirming the lack of any benefit from carving out metrics for peak times from overall averages.[86]

The same is true for wireline broadband services. The Commission's MBA program contains performance metrics for speed, latency, and packet loss for the 7-11 p.m. period, which the Commission has traditionally treated as the peak period. AT&T would have to increase engineering resources devoted to computing these peak period metrics, at significant cost.[87] But this peak period reporting would have no "practical utility." As explained by Dr. Fahmy, AT&T has used the MBA data to compare wireline 24-hour average performance metrics to wireline

[84] *See* Fahmy Decl. ¶¶ 51-53.

[85] *Id.* ¶ 54.

[86] *Id.*

[87] *Id.* ¶ 56.

peak period (7 p.m. to 11 p.m.) average performance metrics, and the differences are very small and do not justify the additional expense.[88]

Sales, Consumer Service, and Support Costs. In addition to the burdens associated with collecting and disclosing the new network performance data, there are substantial additional burdens associated with providing the necessary training to enable AT&T's sales and customer service and support personnel to respond to questions from customers about the new disclosures. AT&T's mobility and wireline affiliates together have tens of thousands of sales and consumer service and support personnel, each of whom would have to be trained to respond to questions raised by existing or potential customers about the new disclosures.[89] Even assuming each of these personnel could be trained in only an hour, these costs could easily add millions of dollars to the cost of complying with the new network performance requirements (including the cost of developing and updating training materials).[90] In addition, sales and customer service and support representatives will have to spend time explaining the new disclosures and responding to questions. Even if this takes up only a few minutes each day of each sales and customer service representative, these costs could easily exceed several million dollars per year.[91]

Additional Burdensome Disclosure Requirements. The *2015 Open Internet Order* contains numerous other requirements that would impose substantial additional costs of their own. Among the most vague and potentially costly of these are those related to "non-BIAS data services."[92] The *Order* does not define these services. Instead, the *2015 Open Internet Order*

[88] *Id.* ¶ 57.

[89] *Id.* ¶ 59.

[90] Fahmy Decl. ¶¶ 59-61.

[91] *Id.* ¶ 61.

[92] *2015 Open Internet Order* ¶¶ 167, 207-213.

provides "examples and characteristics of . . . services" that "likely fit within the category."[93] But these examples and characteristics are extremely broad and open-ended and create substantial confusion as to what is and is not a non-BIAS data service. There are many different types of services – particularly as the "Internet of Things" continues to expand and grow – that may or may not fall within this category.

The *Order* requires substantial new disclosures relating to these services, including "a description of whether the service relies on particular network practices and whether similar functionality is available to applications and services offered over broadband Internet access service."[94] The transparency requirements also require disclosure of "what [non-BIAS data services], if any, are offered to end users, and whether and how [they] may affect the last-mile capacity available for, and the performance of, broadband Internet access service."[95]

Simply identifying and analyzing all of the types of services that might qualify as a non-broadband Internet service under this vague definition is a highly burdensome task, requiring the cooperation of employees from multiple business units that might have such services and attorneys who need to analyze each service under the vague definition in the *Open Internet Order*. And even after such services are identified, substantial additional work is required to develop descriptions of the network practices associated with the service and whether similar functionality exists for other services, as well as the effect (if any) on last-mile capacity. Depending on the true scope of the definition of non-BIAS data services, these costs could easily range from several thousand dollars to hundreds of thousands of dollars.

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[93] *Id.* ¶¶ 208-209.

[94] *Id.* ¶ 167.

[95] *Id.*

C. The Commission Should Issue A New PRA Notice And Adopt Clarifications of the *2015 Open Internet Order* that Reduce Some of the Largest Unnecessary Burdens.

Because the Commission's *PRA Notice* does not meet the most basic terms of the PRA and OMB's implementing rules, the Commission must reissue a new PRA Notice that does meet those requirements. In the meantime, the Commission should, as it did prior to seeking OMB approval for the collections in the *2010 Open Internet Order*, issue clarifications of certain rules in the *2015 Open Internet Order* that would dramatically reduce the burdens of these new collections (although the burdens would still be many orders of magnitude greater than $200).

First, as demonstrated above, many of the largest burdens relate to mobile wireless providers' compliance with new network performance metrics. Unlike wireline services, the Commission has not yet completed an MBA-based safe harbor for wireless services. As a result, the enhanced disclosures would require each wireless provider to develop its own method for collecting and disclosing the new data at enormous cost. But, as the Commission points out, it is in the process of developing the "mobile MBA program" that could be "declared a safe harbor for mobile broadband services."[96] Given that the Commission is well on its way to developing a wireless MBA program, the Commission should not immediately require mobile providers to develop their own programs to collect and report the same types of information, which may become moot or unnecessary once the MBA program is established. Instead, the Commission should make clear that wireless providers are not required to comply with the network performance disclosures until the wireless MBA program is established, and at that time providers may rely on the MBA program data as a safe harbor.

[96] *Id.* ¶ 166.

Second, to the extent the Commission does require wireless providers to comply with the network performance requirements before the mobile MBA program is established, the Commission should clarify that the geographic granularity requirements do not require such data to be developed and disclosed below the CMA level, and not beyond the areas where wireless providers already conduct drive testing. Although providing such disclosures at the CMA level would still be extremely burdensome, this clarification would avoid the substantially greater burdens of complying with a requirement for even more granular geographic reporting. Similarly, for wireline services, the Commission should clarify that providers need not report data below the state level, which is the most granular data available from the MBA program.

Third, and relatedly, as demonstrated above, providers are increasingly supplementing their mobile platforms using Wi-Fi services. At this time, however, providers typically lack the ability to meaningfully measure actual network performance for Wi-Fi services (*e.g.*, unlike traditional mobile networks, most Wi-Fi networks are indoors and thus cannot be evaluated through drive testing). Indeed, doing so may require providers to place measurement devices at all of their thousands of Wi-Fi locations, at a cost of millions of dollars. Accordingly, the Commission should clarify that, at this time, the network performance disclosures are not required for Wi-Fi services, at least until the Commission finalizes its mobile MBA program.

Fourth, the Commission should clarify that, for non-BIAS data services, providers need not catalog and describe each and every such service (*e.g.*, every "Internet of Things" service). Instead, the Commission should clarify that providers may provide aggregate disclosures for appropriate "categories" of non-BIAS data services.

Fifth, the Commission should clarify that providers will have sufficient time following OMB approval of any new data collection requirements to implement them. The Commission

has already anticipated a need for lead time after OMB approval. The *2015 Open Internet Order* states that, after obtaining approval for any collections from OMB, the Commission will "publish a separate document in the Federal Register announcing such approval *and the relevant effective date(s).*"[97] As described above, many of these new collections – especially those related to mobile services – would require AT&T to develop methods for collecting additional data, implement those methods, and then analyze the resulting data to compute the required speed, latency, and packet loss metrics at the required geographic granularity. This process will take significant time to implement. For example, if new equipment or software must be installed in drive test vehicles, then it will take time to purchase the equipment (or write the software), install it in all of the vehicles, conduct the actual drive testing, validate the data, compute the required metrics, and place those metrics on AT&T's broadband information website. Overall, AT&T estimates that it will take at least eight to 12 months to implement all of the enhanced disclosures. Accordingly, the Commission should make clear that providers have at least 12 months to comply with any data collection requirements that are ultimately approved by OMB.

II. THE COMMISSION HAS NOT SOUGHT OMB APPROVAL OF ANY INFORMATION COLLECTIONS CONCERNING IMPLEMENTATION OF NEW POINT-OF-SALE REQUIREMENTS AND, THEREFORE, CANNOT LAWFULLY ENFORCE ANY SUCH REQUIREMENTS.

As explained above, the Commission has never provided any notice that it intends to seek OMB approval for any new information collection that was not adopted in certain paragraphs listed in the Federal Register publication of the *2015 Open Internet Order*.[98] In a footnote to a paragraph *not* included in that list, however, the Commission included language that could be

[97] *2015 Open Internet Order* ¶ 584 (emphasis added).

[98] *2015 Final Rule* ¶ 584 (the *Open Internet Rules* shall go into effect on June 12, 2015, "except that the modified information collection requirements in paragraphs 164, 166, 167, 169, 173, 174, 179, 180, and 181 of this document are not applicable until approved by the Office of Management and Budget (OMB)").

interpreted as changing the "point of sale" disclosure requirement in a way that would unquestionably require OMB approval. In 2011, the Commission issued a guidance document clarifying that broadband providers were only required to direct customers to a website at the point of sale to comply with the disclosure rule. More significantly, in its supporting statement to OMB when it sought approval of the transparency requirements in 2011, the Commission maintained that compliance costs would be minimal because "the *Open Internet Order requires only* that providers post disclosures on their websites, and *direct consumers to such websites at the point of sale*."[99] Insofar as OMB relied on that supporting statement in approving the transparency requirements, there is no question that it never authorized the Commission to require broadband providers to do anything more than provide a link to their disclosures. And the Commission cannot impose such a requirement now without seeking such approval. Nonetheless, footnote 424 of the *2015 Open Internet Order* jarringly states that "[i]t is *not* sufficient for broadband providers simply to provide a link to their disclosures."[100]

The Commission should clarify, as it did in 2011, that access to a website with the provider's net neutrality disclosures is sufficient to comply with the rules, and that the Commission did not intend to change this rule in the *2015 Open Internet Order*. If the Commission *did* intend to adopt such a substantial change in this footnote, the Commission would have to issue a new notice of proposed rulemaking to change the rule, and the PRA would require the Commission to seek OMB approval for these new and expanded information

[99] FCC Supporting Statement OMB 3060-1158, ¶ 5 (September 7, 2011) (emphasis added), *available at* http://www.reginfo.gov/public/do/DownloadDocument?documentID=275090&version=1. *See also id.* ¶ 8 ("Regarding point-of-sale disclosure, the *Advisory Guidance* clarifies that directing consumers orally and/or prominently in writing to a disclosure on a broadband provider's website can satisfy the point-of-sale transparency requirement. These clarifications substantially address the burden concerns expressed by small providers.").

[100] *2015 Open Internet Order* ¶ 171 n.424 (emphasis added).

collections. As shown below, the burdens of any such expanded point-of-sale requirements would greatly outweigh the essentially non-existent benefits, and OMB would likely reject any such change in the rules.

A. The Commission Should Clarify That It Did Not Intend To Change the Point-of-Sale Requirements.

The Commission should take this opportunity to clarify that it did not intend to modify the point-of-sale requirements. The original *2010 Open Internet Order* stated that "broadband providers must, at a minimum, prominently display or provide links to disclosures on a publicly available, easily accessible website that is available to current and prospective end users and edge providers as well as to the Commission, and must disclose relevant information at the point of sale."[101] This "point of sale" requirement caused considerable confusion at the time, because this language made it sound as if broadband providers would be required to provide all or a portion of the text of such disclosures or train sales employees to do so in stores, over the phone, and through other sales channels. To address these concerns, the Commission's General Counsel and Enforcement Bureau issued a guidance document in 2011 clarifying that it was sufficient to direct customers "orally and/or prominently in writing" to a web address with the appropriate disclosures (and to make a computer or tablet available for such purpose to consumers at brick-

[101] Report and Order, *Preserving the Open Internet*, GN Docket No. 09-191, 25 FCC Rcd. 17905, ¶ 57 (2010) ("*2010 Open Internet Order*") ("First, we require only that providers post disclosures on their websites and provide disclosure at the point of sale, not that they bear the cost of printing and distributing bill inserts or other paper documents to all existing customers. Second, although we may subsequently determine that it is appropriate to require that specific information be disclosed in particular ways, the transparency rule we adopt today gives broadband providers some flexibility to determine what information to disclose and how to disclose it.").

and-mortar stores).[102] OMB approval for the 2010 disclosure rule was specifically predicated in part on this 2011 Guidance.[103]

The *2015 Open Internet Order* recounts this history at paragraphs 157-159. Later in the *Order*, paragraph 171 begins with an innocuous sentence purporting to restate the existing law: "The existing transparency rule requires, at a minimum, the prominent display of disclosures on a publicly available website and disclosure of relevant information at the point of sale."[104] The Commission then drops a footnote to this sentence, which incongruously states that "[b]roadband providers must actually disclose information required for consumers to make an 'informed choice' regarding the purchase or use of broadband services at the point of sale. *It is not sufficient for broadband providers simply to provide a link to their disclosures*."[105] The footnote then cites the *2015 Open Internet Order*'s earlier discussion of the *2011 Advisory Guidance*, but of course the *2011 Advisory Guidance* expressly says that a website link to disclosures *is* sufficient.[106]

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[102] *See* Public Notice, *FCC Enforcement Bureau and Office of General Counsel Issue Advisory Guidance for Compliance With Open Internet Transparency Rule*, 26 FCC Rcd. 9411 (rel. June 30, 2011) ("[b]roadband providers can comply with the point-of-sale requirement by, for instance, directing prospective customers at the point of sale, orally and/or prominently in writing, to a web address at which the required disclosures are clearly posted and appropriately updated").

[103] FCC Supporting Statement OMB 3060-1158, at 6 (September 7, 2011), *available at* http://www.reginfo.gov/public/do/DownloadDocument?documentID=275090&version=1 ("Regarding point-of-sale disclosure, the *Advisory Guidance* clarifies that directing consumers orally and/or prominently in writing to a disclosure on a broadband provider's website can satisfy the point-of-sale transparency requirement. These clarifications substantially address the burden concerns expressed by small providers.").

[104] *2015 Open Internet Order* ¶ 171.

[105] *Id.* ¶ 171 n.424 (emphasis added).

[106] *Id.* (*citing* Section III.C.3.a, which contains the discussion of the *2011 Advisory Guidance* at paragraphs 157-159).

The Commission should clarify that this footnote is, at most, inartfully worded and that the Commission did not intend to change any of the rules or policies governing disclosure at the point of sale. The surrounding context of the *Order* supports such a clarification. The sentence in the text is clearly intended as a restatement of existing law, and the footnote, by citing only to the pre-existing rules, also appears to be intended merely as a restatement of existing law. The *next* sentence in the text, by contrast, *does* clearly announce an "enhancement" of the current rule (which is unrelated to the point-of-sale requirement). Justice Scalia once noted that Congress does not "hide elephants in mouseholes,"[107] and the Commission should now reassure the industry (as it did in 2011) that it did not intend to hide the elephant of substantial point-of-sale changes in the mousehole of this footnote to a sentence that purports to state the existing law. The fact that the Commission has not sought OMB approval for such changes further reinforces this interpretation (and, of course, the Commission would be prohibited from enforcing any such changes until they are submitted and approved by OMB).

B. If The Commission Did Intend To Modify The Point-of-sale rule, Such A Change Would Impose Enormous Burdens On The Industry That Could Not Be Justified Under The PRA.

If the Commission did intend to modify the point-of-sale requirements, such changes would require a new notice of proposed rulemaking as well as OMB approval under the PRA. Any such changes, however, would be extraordinarily burdensome and would offer no benefits to consumers. Indeed, the Commission reached that very conclusion in 2011 even before it submitted the collections to OMB for approval, and it should do so again here.

As with the other new transparency requirements in the *2015 Open Internet Order*, the Commission has provided no detail or explanation as to exactly how broadband providers are to

[107] *Whitman v. American Trucking Ass'n*, 531 U.S. 457, 468 (2001).

implement any change in its point-of-sale procedures. If the Commission has made inadequate AT&T's current practice of providing a link to its broadband information website at the point of sale, and instead requires AT&T to provide all or a portion of the text of its broadband Internet disclosures at the point of sale, such changes would impose very substantial new burdens on AT&T. AT&T sells broadband Internet access services through numerous sales channels that use dozens of systems and processes at the point of sale.[108] Altering each of these systems and processes to comply with a new point-of-sale requirement would require substantial development, testing, and deployment that would take at least several months to complete, at a cost of millions of dollars.[109] Such modifications would require comprehensive oversight and testing by experienced IT professionals before deployment, because any mistake could be very costly, *e.g.*, lost sales or incorrect recording of customer orders.[110] In addition, a new point-of-sale disclosure requirement would require training of thousands of sales and customer support representatives who must be prepared both to implement these new requirements and to respond to questions about them.[111] This training and time answering customer questions adds millions of dollars in additional costs each year to the requirement.[112] A brief description of AT&T's numerous sales channels and the tasks needed to implement a change to point-of-sale systems illustrates the burden.

AT&T's post-paid mobile services are sold through *eight* distinct sales channels: (1) AT&T-owned stores; (2) AT&T call centers; (3) AT&T online; (4) national retailers (*e.g.*, Best

[108] Declaration of Matthew Haymons, ¶ 3 (July 20, 2015), attached hereto as Attachment B ("Haymons Decl.").

[109] Haymons Decl. ¶ 3.

[110] *Id.* ¶ 6.

[111] *Id.*

[112] *Id.* ¶ 8.

Buy) in-store; (5) national retailers online; (6) independent dealers in-store; (7) Apple in-stores; and (8) Apple online.[113] These channels rely on multiple point-of-sale systems and processes, and all would require modification to comply with a new point-of-sale requirement. AT&T's "brick and mortar" stores use SigCap (signature capture) terminals or tablet-based systems to present disclosures; call center orders use customer service summary emails for the disclosures; AT&T's online store relies on AT&T's backend online point-of-sale systems; national retailers use paper materials provided by AT&T and their own systems to provide disclosures; and independent dealers use a combination of SigCap terminals and paper materials to provide disclosures.[114] Revising all of these point-of-sale systems to provide additional disclosures at the point of sale would require substantial modifications to the software and backend systems for each of these sales channels, which will require software development (and significant testing), revisions to paper materials, and numerous other complex tasks and procedures.[115]

AT&T's prepaid mobile services raise additional unique issues because consumers purchase prepaid devices from many sources and then later activate and fund them.[116] AT&T has adopted the industry-wide practice of including the relevant terms of service and disclosures within the packaging for prepaid devices.[117] The disclosures currently provided with prepaid devices include a link to the AT&T website containing AT&T's broadband Internet

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[113] *Id.* ¶ 9.

[114] *Id.* ¶ 10.

[115] Haymons Decl. ¶¶ 9, 10-19. *See also id.* ¶ 21 ("AT&T also offers services that permit customers to add compatible vehicles to their mobile data plans, typically to enable a mobile Wi-Fi hotspot within the vehicle. The point-of-sale systems and processes vary for AT&T's various automobile partners. To the extent these systems and processes must be altered to include all or a portion of the text of AT&T's broadband Internet disclosures, AT&T and its automobile partners would have to revise these point-of-sale systems and processes.").

[116] Haymons Decl. ¶ 22.

[117] *Id.* ¶ 22.

disclosures.[118] Changing the rules to require AT&T to instead include all or a portion of the text of AT&T's broadband Internet disclosures in the packaging would impose substantial costs on AT&T because it has millions of devices in inventory and on the shelves of dealers, national retailers, and its own stores and changing the disclosures would require opening each package, adding all or a portion of the text of AT&T's transparency disclosures, and then resealing the packaging.[119] In many cases, the cost of doing so would be more than the value of selling the device.[120] Such repackaging would cost several million dollars, and this issue would arise every time a change must be made to AT&T's broadband Internet disclosures in the future.[121] AT&T would also have to modify its prepaid activation systems and software, which also make the terms of service and disclosures available (in addition providing them with the packaging), typically by providing a link to the website containing AT&T's broadband Internet transparency disclosures.[122] To the extent AT&T is required to provide all or a portion of the text of the transparency disclosures, these systems and processes would also have to be modified.[123]

AT&T's wireline services are sold through four distinct sales channels: (1) online; (2) AT&T stores; (3) AT&T call centers; and (4) door-to-door sales.[124] For each of these sales channels, before service can be activated, the customer must first register with AT&T.[125] This registration process currently provides customers with the link to AT&T's broadband Internet

[118] *Id.* ¶ 23.

[119] *Id.*

[120] *Id.*

[121] Haymons Decl. ¶ 23. Additionally, AT&T would incur costs due to lost sales and other complications each time inventory is repackaged. *Id.* ¶ 24.

[122] Haymons Decl. ¶¶ 25-28.

[123] *Id.*

[124] *Id.* ¶ 29.

[125] *Id.*

disclosures.[126] Modifying these systems to present the customer with all or a portion of the broadband Internet disclosures would require additional software development, extensive testing and deployment.[127] In addition, AT&T makes a paper copy of the terms of service, with a link to the AT&T website containing the transparency disclosures, available when services are self-installed or installed by a technician.[128] If those paper copies would have to be updated to include all or a portion of the broadband Internet disclosures, the documents would have to be updated, printed, and redistributed regularly.[129]

In addition to all of these costs, the new point-of-sale systems and processes would necessitate training of AT&T's sales and customer support personnel to ensure that the new disclosures are properly implemented and that the sales and customer support personnel can address customer questions about the new disclosures.[130] AT&T has tens of thousands of sales and customer support personnel who would have to be trained, and would have to spend a portion of their time each day responding to questions about the point-of-sale disclosures.[131] Even if only a small amount of time is required for training and responding to such questions, the overall time for AT&T's tens of thousands of employees is very substantial and translates into millions of dollars in additional costs each year.[132]

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[126] *Id.* ¶ 30.

[127] *Id.* ¶ 31.

[128] Haymons Decl. ¶ 32.

[129] *Id*. *See also id.* ("In addition, as with our prepaid wireless product, updating the disclosures in a self-install kit is a manual process and this process would have to be repeated each time AT&T modifies its broadband Internet disclosures.").

[130] *Id.* ¶ 33.

[131] *Id.*

[132] *Id.* ¶ 33.

There would be no offsetting practical utility of requiring additional disclosures at the point of sale.[133] Under current requirements, existing and potential customers already have access to the full text of AT&T's broadband Internet disclosures from AT&T's website before, during, and after the point of sale. In addition, customers are reminded of the availability of the transparency disclosures at the point of sale, because AT&T provides them with a link to the website. Providing customers with lengthy multi-page documents with all or some of these disclosures at the point of sale is more likely to be annoying to customers than helpful. Indeed, these paper copies could be extremely lengthy if they must include disclosures at very geographically granular levels. Moreover, any new requirement that providers supply some or all of the text of the disclosures at the point of sale could even be confusing or harmful.[134] Although AT&T's broadband information website can be updated fairly quickly, it takes time to update all of the point-of-sale systems and processes, especially those that use paper disclosures.[135] Consequently, any rule that requires all or some of the text of the transparency disclosures to be provided at the point of sale, rather than a link to AT&T's up-to-date website, could undermine any benefits of such disclosures because customers would receive outdated and incorrect information.[136]

If the Commission does change its rules to require providers to give customers all or a portion of the text of their broadband Internet transparency disclosures at the point of sale, the Commission should, at a minimum, take two steps to reduce the burden. First, significant lead time is needed for carriers to implement these changes. It would take several months to update

[133] *Id.* ¶ 35.

[134] Haymons Decl. ¶ 35.

[135] *Id.*

[136] *Id.*

AT&T's systems and processes, implement the necessary sales staff training, and change the packaging of devices that include the disclosures within the device package. Moreover, because implementing updates to AT&T's systems and processes is complex, disruptive, and expensive, AT&T schedules a limited number of updates to its systems and processes each year, and implements all necessary changes in aggregate during those scheduled updates. In addition, AT&T, national retailers, and many dealers "freeze" their point-of-sale systems (*i.e.*, no changes are permitted) in the final quarter of the year to avoid potential disruptions or other issues during the important holiday sales season. For these reasons, the Commission should give providers at least one year to comply with any new point-of-sale requirements. This approach will give providers time to develop the new systems and processes and to implement them during one of the regularly scheduled update times.[137]

Second, the FCC should waive compliance with the new rule for all inventory up to the date when the new rule goes into effect to avoid the enormous costs (and waste) associated with searching through existing inventory for items packaged prior to the effective date that lack disclosures compliant with the new rules, repackaging those items, and the resulting potential gaps in inventory. Moreover, the Commission should adopt a solution that avoids these costs from recurring every time a provider has to update its broadband Internet disclosures.

[137] *Id.* ¶ 37.

CONCLUSION

For the foregoing reasons, the *PRA Notice* is deficient and cannot withstand OMB review. The Commission should issue a new PRA notice that complies with the Paperwork Reduction Act and implementing rules, and adopt the clarifications set forth herein.

Respectfully submitted,

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July 20, 2015

ATTACHMENT A

Declaration of Dr. Hany Fahmy

July 17, 2015

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	
Protecting and Promoting the Open Internet	)	GN Docket No. 14-28
	)	OMB Control No. 3060-1158
	)	

DECLARATION OF DR. HANY FAHMY

July 20, 2015

Table of Contents

I. QUALIFICATIONS AND BACKGROUND

1. My name is Dr. Hany Fahmy. I am Assistant Vice President of Global Public Policy and Legislative Affairs with AT&T Services Inc. I have been with AT&T for 17 years. My responsibilities include leading wireless and wireline broadband performance evaluation for the purpose of disclosures to federal and state governments and guiding AT&T compliance and participation in government sponsored broadband evaluation initiatives such as the Federal Communications Commission's wireline/mobile Measuring Broadband America, Connect America Fund, and the State of California mobile drive test programs. Prior to this position, I was Director of wireless and wireline access architecture with AT&T Labs responsible for the evolution of AT&T's access network to new technologies such as 5G, FTTP (fiber to the premises) and G.FAST (high speed DSL). Prior to joining AT&T, I was Research Staff Member with Racal DataComm USA. I hold a Ph.D. in Electric and Computer Engineering from University of Miami, Florida.

II. PURPOSE AND SUMMARY

2. The purpose of this declaration is to demonstrate that the Federal Communications Commission ("FCC") has greatly underestimated the burdens of the new transparency requirements in the *2015 Open Internet Order*, and to explain why those burdens are not offset by any practical uses or other benefits.

3. The *2015 Open Internet Order* contains numerous new data collections and reporting requirements that will require AT&T and other providers, among other things, to: develop new systems and software; collect, analyze, and verify vast amounts of new data; train thousands of employees and contractors; install new equipment in dozens of vehicles used for drive testing; potentially add thousands of miles to existing drive test routes; and numerous other costly initiatives. The FCC estimates that the total cost to a single company to perform all of

these tasks is about $200 per year ($640,000 total industry cost divided by 3,011 impacted providers).

4. This estimate is clearly invalid. In this declaration, I demonstrate that the burden to AT&T of complying with only a selected subset of the new collections – specifically, the new "Network Performance" collections related to speed, latency, and packet loss – far exceeds the FCC's *industry-wide* estimate of the burden for *all* of the collections. As I explain below, depending on how the new requirements are interpreted, the costs could be millions of dollars and potentially tens of millions of dollars.

5. I also show that these burdens are not offset by any practical utility or other benefits. I demonstrate that consumers are unlikely to find this additional information useful for evaluating or comparing broadband services. Moreover, the additional speed, latency, and packet loss information the FCC now requires providers to collect and disclose is already available from multiple other sources, often with more accuracy and relevance to the user.

6. The rest of this declaration is organized into four sections. The first three sections demonstrate the substantial burdens and lack of benefits, respectively, for the following new data collection requirements: (1) packet loss; (2) more geographically granular speed, latency, and packet loss data; and (3) average estimates for speed, latency, and packet loss during peak periods. The last section explains that there would also be substantial additional burdens associated with training thousands of AT&T customer sales and customer service and support personnel to implement these new requirements and time they would spend responding to questions about the new disclosures.

III. THE NEW PACKET LOSS COLLECTION IS HIGHLY BURDENSOME AND THE RESULTING DATA HAS NO OFFSETTING PRACTICAL UTILITY OR OTHER BENEFITS

7. The *2015 Open Internet Order* adds "packet loss" to the collection and disclosure requirements imposed on broadband Internet access providers:

> The existing [2010] transparency rule requires disclosure of actual network performance. In adopting that requirement, the Commission mentioned speed and latency as two key measures. Today we include packet loss as a necessary part of the network performance disclosure.[1]

8. This new collection and disclosure requirement will impose very substantial burdens on AT&T without any offsetting practical utility or other benefits.

A. The New Packet Loss Collection Is Highly Burdensome.

9. The new packet loss requirements apply to broadband Internet access services provided over mobile broadband networks and fixed wireline networks. As I explain below, the FCC's estimate that a company could implement this collection for less than $200 has no connection to reality. In fact, the costs of implementing this collection alone could easily exceed one million dollars, and potentially much more, depending on how the FCC ultimately interprets the new requirements.

10. *Mobile Broadband.* AT&T relies on "drive testing" to measure actual network speed and latency – but not packet loss – for its mobile broadband network. Drive testing involves outfitting vehicles with mobile cellular equipment that is capable of taking periodic speed and latency measurements as the vehicles drive through AT&T service areas. These vehicles also contain equipment that stores this information, and software capable of automatically collecting these data. There are dozens of vehicles in the fleet used for AT&T

[1] *In the Matter of Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd. 5601, ¶ 166 (2015) ("*2015 Open Internet Order*").

mobility drive testing. The drive testing occurs from about [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**], and covers areas where more than [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] of the U.S. population lives and works. These drive tests are conducted by an AT&T vendor.

11. The information collected from these drive tests is transferred to another third party that processes the data and puts it into a database. This information is then analyzed and verified by AT&T data analysts. After being verified, AT&T data analysts compute the range of average national speed and latency metrics for AT&T's network. These metrics are then provided to AT&T's IT professionals who place the information on the AT&T website containing AT&T's broadband Internet disclosures.

12. The drive tests do not currently collect packet loss data. It is possible to add packet loss to the drive tests, but that would require substantial additional costs. The equipment and software in the vehicles used for drive testing do not currently have the capability to collect packet loss information. There are two ways to add packet loss measurement capabilities to the drive testing.

13. The first option is to revise the software used in the existing equipment in each of the dozens of vehicles used for drive testing to allow the equipment to capture packet loss. However, this approach would require additional drive testing to collect the same amount of data. When the equipment in the vehicles is programmed to capture packet loss, it will take the equipment more time to capture that data from the network, because it must now capture an additional data point for each sample. As a result, the total number of data points that can be collected for each metric during a given amount of time would decrease by about 10 percent. To

maintain the same number of data points, it would therefore be necessary to increase drive test times by about 10 percent. This increase in drive testing could impose an additional burden of several million dollars per year.

14. The second option is to install a separate set of equipment dedicated to capturing only packet loss data in each of the dozens of vehicles used for drive testing. This approach would allow the same number of data points to be captured for speed, latency, and packet loss without having to significantly change drive test times. However, the additional equipment needed for each vehicle would be expensive. This approach would cost more than three quarters of a million dollars per year.

15. These burden estimates assume that the FCC's new rules will not require AT&T to expand its drive testing to new areas or to cover new times of day (issues which are discussed in the next two sections). If such expanded drive testing is needed, the incremental costs of adding packet loss to the disclosures will increase accordingly.

16. In addition to the costs of collecting actual packet loss data through drive testing, there are costs associated with developing useful average packet loss estimates from the data. Specifically, AT&T data analysts would have to validate the drive test data, analyze it, and then compute statistically significant average packet loss metrics from these data. There would be significant upfront one-time costs associated with developing the methodology for these computations. In addition, AT&T engineers would have to implement those computations periodically as updated data becomes available. And, AT&T would have to add the new information to the website containing AT&T's disclosures. These tasks would cost several thousand dollars each year (more in the first year due to the initial setup costs), with the actual amount depending on how frequently the disclosures need to be updated.

17. The above estimates assume that AT&T would only have to compute network performance figures at the national level. As discussed further below, these costs will rise dramatically if the FCC requires these metrics to be computed for multiple geographic areas and if they need to be updated periodically throughout the year. For example, if AT&T were required to provide packet loss estimates for each Cellular Market Area ("CMA") covered by its network, AT&T data analysts would have to compute more than 700 packet loss estimates. As a result, depending on the geographic granularity with which these estimates must be computed, the costs of computing the metrics from the data could rise to tens of thousands of dollars.

18. *Fixed Wireline Broadband.* For wireline services, AT&T currently uses the data collected by the FCC's Measuring Broadband America program ("MBA") to estimate the required national speed and latency metrics. The MBA program also includes packet loss data. Accordingly, to provide packet loss metrics, AT&T analysts would be required to analyze the MBA packet loss data to estimate statistically significant national packet loss metrics. Based on past experience, it takes an AT&T analyst about [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] to conduct this analysis, which includes extracting the data, validating the data, computing the metrics, and validating the metrics. Moreover, as AT&T continues to add speed tiers and update existing speed tiers, AT&T will have to repeat these tasks to update the disclosures to reflect the most recent information. In addition, this burden will increase substantially depending on the level of geographic granularity required for reporting. For example, if this number must be computed at the state level, these estimates would have to be computed for each of the 21 states covered by AT&T's wireline network, which would increase the number of hours required accordingly.

Assuming that the data would have to be updated three times each year for each state, AT&T estimates the cost of compliance would be tens of thousands of dollars per year.

B. There Are No Offsetting Practical Uses Or Other Benefits To Packet Loss Metrics.

19. The *2015 Open Internet Order* does not explain why it added packet loss as a necessary component of the network performance disclosures. In a footnote, the *2015 Open Internet Order* cites to comments from AARP and others stating that "packet loss could be useful to consumers."[2] But none of these comments appear to explain how packet loss would actually be useful to consumers or edge providers. These comments merely state that packet loss, to the extent it would be useful at all, would be useful for assessing "delay intolerant applications."[3]

20. In fact, packet loss metrics are of little or no practical use to consumers or edge providers for evaluating service quality, or for comparing the performance of alternative networks, including for delay intolerant applications. To the contrary, low packet loss could be an indication of *slow* network performance, and thus worse for delay intolerant applications.

21. To understand why this is so, it is important to understand the trade-offs associated with packet loss. Internet traffic is transmitted using routers. A router receives packets, identifies their next destination, and forwards the packets to those destinations. Routers have "buffers" where packets are queued for delivery. The size of the buffer is an important design parameter because there is a relationship between the size of the buffer and the speed at which packets reach their destinations. A larger buffer means longer queues for packets before they are sent to their next destination. A smaller buffer means smaller queues for packets before

[2] *2015 Open Internet Order* ¶ 166, n.407.

[3] *Id.*

they are sent to their next destination. In other words, smaller buffers permit packets to be transmitted more quickly.

22. The downside to having a smaller buffer is that it increases the potential for packet loss. When a packet reaches a router and the buffer is full – which is more likely to happen when the buffer is smaller – the packet typically will be dropped, which results in packet loss (dropped packets are normally recovered using TCP retransmission). Thus, there is a trade-off between reduced packet loss and the speed at which packets are transmitted through the network.

23. For these reasons, low packet loss does not necessarily mean better performance for delay intolerant applications. Increasing buffer size to mitigate packet loss will result in higher network delay, which could have a far greater adverse effect on delay intolerant applications, such as frozen frames for significant periods of time.

24. Packet loss metrics have little or no practical utility or other benefits for other reasons as well. The *2015 Open Internet Order* does not explain how providers are supposed to compute packet loss. One approach would be to measure packet loss from a point on the providers' network to a computer or mobile device connected to that network. These "intra-network" packet loss estimates, however, will generally be extremely low for most broadband providers. Packet loss at such low levels would have virtually no noticeable impact on customer experiences, even for delay intolerant applications. Thus, differences in intra-network packet loss would not typically be a useful metric for consumers wishing to assess or compare providers.

25. Another approach to measuring packet loss would be to attempt to measure "inter-network" packet loss. Inter-network packet loss metrics vary dramatically depending on the end

points used for testing network conditions at the time of testing. As a result, such metrics would not typically represent the packet loss that any particular customer or edge provider would experience, because their experience will depend on the end points of *their* transmissions and congestion at the time those transmissions occurred. In addition, there are different technical methods for measuring packet loss, including measurements based on loss of UDP packets and measurements using ICMP pings. For all of these reasons, comparisons of inter-network packet loss metrics among different providers would be meaningless, because those metrics would almost certainly depend on different end-points, testing that occurred at different times, and many other factors out of each provider's control, resulting in apples-to-oranges comparisons.

26. Even if packet loss metrics were useful to customers or edge providers, there is no need to force providers to incur the substantial costs of developing, collecting, and disclosing such metrics. Third parties already make such information publicly available. To be sure, due to the fact that packet loss metrics are not particularly useful, there are a limited number of third parties that collect such metrics, but some do exist. For example, such metrics are currently available from the FCC's MBA applications and from Internet Pulse (http://internetpulse.net/main.aspx?metric=PL). The new collections for packet loss in the *2015 Open Internet Order* are therefore not necessary to provide consumers and edge providers with any packet loss data they may find useful.

27. Finally, it is important to note that the FCC's focus on packet loss metrics could have *adverse* unintended consequences that ultimately harm consumers and edge providers. To the extent that the new packet loss collection and reporting requirements cause customers and edge providers to choose service providers based on reported packet loss metrics, providers

would have incentives to increase router buffers to reduce packet loss. But, as explained above, such practices could result in slower and less optimized Internet routing systems.

IV. THE NEW GRANULAR GEOGRAPHIC SPEED, LATENCY, AND PACKET LOSS COLLECTION IS HIGHLY BURDENSOME AND THE RESULTING DATA HAS NO OFFSETTING PRACTICAL UTILITY OR OTHER BENEFITS

28. Under the *2010 Open Internet Order*, AT&T currently collects and discloses actual speed and latency metrics for its mobile broadband network at the national level, by technology (*e.g.*, LTE, HSPA+, HSPA). The FCC has acknowledged that if users want more granular information, there are "[v]arious software-based broadband performance tests . . . available as potential tools for end users and companies to estimate actual broadband performance."[4]

29. Nonetheless, the *2015 Open Internet Order* adds a new collection that requires speed, latency, and packet loss to be collected and disclosed by providers at more granular geographic levels:

> We expect that disclosures to consumers of actual network performance data should be reasonably related to the performance the consumer would likely experience in the geographic area in which the consumer is purchasing service.[5]

30. This new collection and disclosure requirement imposes significant burdens on AT&T and the rest of the industry, without offsetting benefits.

31. It is important to note at the outset that the FCC does not explain what it means by "the geographic area in which the consumer is purchasing service." That phrase could be defined at many different levels. I assume for purposes of this declaration that the FCC does not intend to define those terms to require providers to collect and report data at excessively granular

[4] *2015 Open Internet Order* ¶ 166 n.411.

[5] *2015 Open Internet Order* ¶ 166.

sub-market levels (such as census blocks or cell sites), which would be completely infeasible and astronomically expensive. Even if the "geographic area" is defined more broadly, the burden of computing each of the performance metrics for many new areas would be substantial, and certainly far greater than the total of $200 estimated by the FCC. And, as explained below, such collections and disclosures would be of little or no practical use to consumers or edge providers.

A. The New Granularity Requirement Would Be Extremely Burdensome To Implement For AT&T's Mobile Services With No Offsetting Benefits.

32. To obtain national average speed and latency metrics for its mobile services, AT&T conducts drive tests using vehicles outfitted with specialized equipment and software. These drive tests cover about [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] CMAs in the United States, which cover about [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] percent of the national population. These drive tests are designed to obtain [**BEGIN CONFIDENTIAL INFORMATION**]

[**END CONFIDENTIAL INFORMATION**].

33. Depending on the geographic granularity actually required by the new collection and disclosure requirements, the additional burden to AT&T would range from very substantial to truly astronomical. These burdens include (1) the need for substantially more analyst hours for developing performance metrics for each of the new geographic areas and (2) substantially more drive testing. Moreover, these burdens are subject to multiplier effects because the FCC's new collection and disclosure requirements appear to require data to be updated one or more times during the year and the data must be collected for each technology, for both uplink and

downlink, average and peak, often with high and low ranges, resulting in millions of new data points to collect and analyze.

34. *Data Analysis Burden.* To comply with the FCC's current collection and reporting requirements, AT&T provides the drive test data to a third party that processes the data and inputs it into a database. AT&T data analysts then validate the drive test data and use those data to compute each national performance metric (speed and latency). In addition, AT&T uses these data to compute these metrics for [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] CMAs. The *Open Internet Order*, however, may contemplate reporting of the metrics for some undefined area that is much smaller than a CMA. A CMA can be very large. For example, the "Washington, DC-MD-VA" CMA covers all of Washington, D.C., and most of its suburbs in Maryland and Virginia. Similarly, the entire state of Wyoming has only six CMAs, and Alaska only four. Comparing these metrics at the CMA level provides little or no incremental benefit over comparing national numbers.

35. Computing these metrics for smaller areas would be extremely burdensome. This additional geographic granularity would require data analysts to compute these metrics, plus the packet loss metric, *for each new geographic area*. For example, if the requirement is to disclose the data by an area half the size of a CMA, AT&T engineers would have to develop new statistically valid sets of performance metrics for at least [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] newly defined geographic areas [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**]. Such a requirement, therefore, would require more than 1000 times more work for the engineers, as compared to the current nationwide performance

reporting. Moreover, this requirement would require the creation of a procedure for mapping the data to the newly defined smaller geographic areas, and would likely require additional drive testing to ensure the drive tests collect enough data points within these smaller areas to provide statistically significant data to produce representative performance metrics. The result would be tens of thousands of dollars or more in additional costs to AT&T. And this burden would increase at a corresponding rate if the FCC requires performance data to be developed for even smaller geographic areas.

36. Moreover, as described further below, providers today use different equipment and methods for computing performance metrics. To enable apples-to-apples comparisons of these metrics, the FCC would have to require providers to use identical equipment and methods. But such micro-management would require most providers to completely change their current approaches, which would itself impose an additional large burden on providers.

37. *Drive Test Burdens.* The FCC's new collection and disclosure requirements could also require AT&T to conduct substantial additional drive testing, which would further increase the burden of complying with these new requirements.

38. First, as noted, AT&T's current drive testing is designed to collect sufficient data to develop [**BEGIN CONFIDENTIAL INFORMATION**]

[**END CONFIDENTIAL INFORMATION**]. Consequently, [**BEGIN CONFIDENTIAL INFORMATION**]

[**END CONFIDENTIAL INFORMATION**], these drive tests can lack a sufficient number of data points to estimate statistically significant average performance metrics for smaller geographic areas. To develop sufficient data for each of the smaller geographic areas, AT&T would likely

have to conduct additional drive tests to collect a sufficient number of data points within each smaller geographic area to develop statistically significant average performance metrics for those areas. Depending on the level of geographic granularity, this additional drive testing could require more vehicles as well as extra time. The additional costs could easily run into the tens or even hundreds of thousands of dollars, depending on the required geographic granularity.

39. Second, as noted, AT&T's current drive testing covers about [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] CMAs, which covers more than [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] of the population within those service areas. The approximately [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] not currently covered by AT&T's drive tests are generally less populated areas that cover nearly 1.5 *million* square miles. To the extent AT&T is required to provide performance metrics at a geographic granularity that would require drive testing in these additional CMAs, the burden of complying with the requirement would increase dramatically. AT&T's vendor estimates that it would cost an additional $1.5 million per year to expand the drive testing into these areas. [**BEGIN CONFIDENTIAL INFORMATION**]

[**END CONFIDENTIAL INFORMATION**]

40. AT&T's mobile network also includes Wi-Fi services. It is unclear whether the FCC's new transparency rules require providers to report performance metrics for Wi-Fi services to the extent they are deemed to be broadband Internet access services. Such a requirement would be extremely costly. General geographic metrics about Wi-Fi performance are not useful

because Wi-Fi performance will depend on the capabilities of each router and the environment in which it is operating (*e.g.*, interference, walls, distance). Moreover, due to the nature of Wi-Fi services, drive testing is not feasible (indeed, many Wi-Fi locations are indoors). AT&T has investigated methods to gather meaningful performance metrics for Wi-Fi services, but all are extremely expensive. For example, one approach would be to place a "test probe" at each Wi-Fi location that measures performance of the Wi-Fi network at these locations. But AT&T has tens of thousands of Wi-Fi locations, and initial estimates indicate that deploying and monitoring these probes would cost millions of dollars.

41. None of these substantial costs are offset by practical utility or other benefits.

42. First, these metrics could not be used to compare speed, latency, or packet loss among different providers. Absent a standardized approach, which the FCC has not provided, each provider will almost certainly compute these metrics for *different* geographic areas. Moreover, providers use different vendors to collect network performance data (and some may do it themselves). In AT&T's experience, each vendor uses different equipment and algorithms to measure performance. As a result, even if each provider happens to test perfectly overlapping geographic areas, the performance metrics they report would not be comparable because they would reflect different underlying methodologies. Any attempt to force providers to use a uniform approach would require many providers to substantially change their systems, which would impose an enormous additional burden on providers.

43. Second, this information, even if comparable, provides no incremental benefits to consumer because such information is already available to existing and potential customers and edge providers. As just one example, the FCC's own MBA application provides users with current network performance metrics from any geographic location within AT&T's network.

Geographically granular network performance figures, such as speed and latency, are also available from third parties, such as Ookla, RootMetrics, and Sensorly. To be sure, not all users currently have a device that can connect to AT&T's network that can be used to conduct these tests. However, there are many ways for consumers to obtain such devices, *e.g.*, borrow a friend's device, use an AT&T device in an AT&T store, or purchase a device and return it consistent with AT&T's return policies. There are also multiple publications that provide network performance metrics at highly disaggregated levels, such as *PC Magazine* and Open Signal. Thus, requiring AT&T and other providers to also report these metrics thus provides no useful information that customers cannot already obtain elsewhere.

44. Third, as the FCC has explained, it is in the process of completing a mobile version of the MBA program that will have the data needed for these disclosures. There is no reason to force providers to undertake the enormous expense of additional drive testing and data analysis to obtain the underlying data needed for the disclosures when those efforts may be superseded by the uniform MBA program in the near future. The far better approach is to delay these mobility reporting requirements at least until the mobile MBA program is implemented.

B. The New Granularity Requirement Would Be Burdensome To Implement For AT&T's Wireline Services, With No Offsetting Benefits.

45. The *2010 Open Internet Order* provides that AT&T and other providers that participate in the MBA program can rely on those data to comply with the performance-related collection and disclosure requirements for wireline services. The *2015 Open Internet Order* states that "[p]articipation in the [MBA] program continues to be a safe harbor for fixed broadband providers in meeting the requirement to disclose actual network performance."[6] The

[6] *2015 Open Internet Order* n.411.

most granular data available from the MBA program is state-level data. Accordingly, although the *2015 Open Internet Order* is not clear as to what level of geographic granularity is required, the most granular level it can require of participants in the MBA is statewide data.

46. Under the current reporting requirement, AT&T data analysts currently use MBA data to compute a single set of "national" performance metrics for the 21 states where AT&T offers wireline broadband Internet access services. As discussed above, to the extent the new rules require these data to be reported at the state level, AT&T's data analysts would be required to compute these metrics for each of the 21 states where AT&T offers wireline broadband Internet access services, and the costs would increase 21-fold.

47. There are no significant offsetting practical uses or other benefits to justify these burdens. These more granular geographic data could be of practical use to consumer or edge providers only if geographic variation in the three performance metrics derived from the MBA data led to noticeable differences in the user experience. If not, national figures provide all of the information needed to make informed decisions about the performance of AT&T's network.

48. I have analyzed the data for each of the three performance metrics (speed, latency, and packet loss) available for AT&T's network from the MBA program for the period from January 2015 through May 2015 (the most recent data available) for all AT&T speed tiers for which data are available from the MBA program. The results of this analysis show that there is very little variation in wireline speed or latency within each speed tier offering from state-to-state. And packet loss is so low in every state that any variations among states would have no noticeable impact on customers' or edge providers' experience. As a result, there are no practical uses for these more granular data for either consumers or edge providers.

49. Even if state-to-state variations for speed, latency, and packet loss were of some practical use, those metrics are already available from third-party sources, so requiring AT&T to provide them would make no additional benefits available to customers or edge providers. These metrics can be obtained in real time from public websites and publications, including Ookla and the FCC's MBA website.

V. THE NEW PEAK PERIOD COLLECTION REQUIREMENT IS HIGHLY BURDENSOME AND THE RESULTING DATA HAS NO OFFSETTING PRACTICAL UTILITY OR OTHER BENEFITS

50. The *2015 Open Internet Order* adds a new requirement that providers collect and disclose each of the three network performance metrics (speed, latency, and packet loss) "during times of peak usage."[7] AT&T already discloses overall averages for speed and latency. As demonstrated below, these new "peak" period metrics would be very burdensome to collect, and would provide little or no practical utility or other benefits.

A. The New "Peak Period" Requirement Would Be Highly Burdensome To Implement For AT&T's Mobility Services With No Offsetting Benefits.

51. The new requirement for "peak usage" is not a well-defined metric for mobile networks. For mobile networks, "peak usage" periods vary substantially from location to location. For example, in downtown areas, peak usage tends to be during the late morning to the late afternoon rush hour. In residential areas, however, peak usage tends to be later in the evening. Consequently, determining peak usage for every area would be very burdensome in itself. Doing so would require studies of every geographic area to determine peak usage times for each area, and then drive testing during those times to collect sufficient information to develop average speed, latency, and packet loss during those times. These tasks would severely

[7] *2015 Open Internet Order* ¶ 166.

impact the logistics and practicalities of performing nationwide drive testing, and may lead to the need for additional test vehicles at a potential additional cost of hundreds of thousands or even millions of dollars per year.

52. It is not feasible to use the FCC's historic definition of peak usage periods, *i.e.*, 7-11 p.m., to compute peak time performance metrics. As noted, AT&T's current drive testing occurs between the hours of [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] To obtain speed, latency, and packet loss data for the 7-11 p.m. period would require AT&T to extend its drive testing by [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] hours. This would require both extending the drive times for existing vehicles and drivers, and adding new vehicles and drivers to the fleet. According to AT&T's vendor, such additional drive testing would cost more than $15 million per year.

53. The alternative is to use existing drive test data – based on testing from [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] – to identify peak periods within that time frame and use those figures to develop the average speed, latency, and packet loss figures during those time periods. This project would require engineers to develop these new metrics for each geographic area for which the new reporting requirement applies. AT&T's data analysts would have to develop a method for making these measurements. AT&T estimates that it would take a data analyst about [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] to develop the metric, plus [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] to execute them, at

an additional cost of thousands of dollars per year. And, for the reasons described above, the cost could be much higher depending on the required level of geographic granularity.

54. There are no offsetting practical uses or other benefits to requiring providers to collect and disclose this information. As explained above, variations in peak usage occur at granular levels (*e.g.*, residential districts versus business districts, and even there by cell site), and identifying the peak times for each area and measuring speed, latency, and packet loss for these periods in such granular areas is impractical and cost prohibitive (millions of dollars each year). Rather, the only practical peak period metrics would be at much broader geographic areas. But at these levels, variations in peak usage are masked due to the fact that peak usage will occur at different times of day for different local areas within the geographic area being measured. For example, AT&T drive testing data show that the differences in national speed and latency metrics for the time periods from [**BEGIN CONFIDENTIAL INFORMATION**]

[**END CONFIDENTIAL INFORMATION**], 12-5 p.m. (more reflective of peak periods in business areas), and 12-9 p.m. (more reflective of peak periods in residential areas) are insubstantial, thus confirming the lack of any benefit from carving out metrics for peak times from overall averages assuming a reasonably sized geographical footprint (*e.g.*, city, CMA or FCC hexagon).

55. In any case, as discussed above, the FCC will soon deploy a mobile MBA program that will enable those data to be used to develop performance metrics for "peak" periods. Accordingly, to the extent the FCC determines there are benefits to such disclosures, it should reduce the burden by delaying implementation of the requirement until the MBA data are available.

B. The New "Peak Period" Requirement Would Be Burdensome To Implement For AT&T's Wireline Services With No Offsetting Benefits.

56. For wireline broadband services, the FCC has in the past indicated that peak usage occurs from 7 p.m. to 11 p.m. The FCC's MBA program already contains each of the performance metrics for these periods. Accordingly, it would be straightforward for an AT&T engineer to compute average network performance metrics for these periods. However, as discussed above, it would take an engineer about [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] to compute these metrics for each geographic area. To the extent such metrics must be computed for many geographic areas (as opposed to only a national figure), the burden will increase substantially (one hour for each area). Moreover, to the extent these data must be updated periodically, the burden will be incurred multiple times each year. For these reasons, the burden of collecting and disclosing these figures, although straightforward, could easily be tens of thousands of dollars each year.

57. Again, there are no offsetting practical uses or other benefits from this information. AT&T has used the MBA data to compare wireline 24-hour average performance metrics to wireline peak period (7 a.m. to 11 p.m.) average performance metrics. The differences are very small, and thus provide no useful information beyond what is already available from the national metrics.

VI. THE NEW NETWORK PERFORMANCE REQUIREMENTS CREATE ADDITIONAL BURDENS ASSOCIATED WITH SALES AND CUSTOMER SERVICE AND SUPPORT

58. In addition to the burdens associated with collecting and disclosing these data, there are substantial additional burdens associated with providing the necessary training to

enable AT&T's sales and customer service and support ("CSS") personnel to respond to questions from customers about the new network performance-related disclosures.

59. To put this in perspective, AT&T mobility has tens of thousands of sales and CSS employees, of which a few thousand are team managers. In the ordinary course, the team managers would review the training materials and present them during a weekly team meeting with the other CSS employees. Assuming the team managers spend about 45 minutes reviewing the training materials and preparing their presentations about those materials for the weekly meetings, the cost of that time would be hundreds of thousands of dollars. Further, assuming that each of the tens of thousands of sales and CSS employees spend about one hour listening to the training and reviewing the materials themselves, the cost of that time would be millions of dollars.

60. AT&T's wireline business would likewise incur substantial costs to ensure that its sales and customer services representatives are properly trained to address customer inquiries about the new disclosures. AT&T mobility has several thousand representatives and vendors who would need to be trained to address inquiries about the new disclosures. The "methods and procedures" manuals used by these representatives would have to be updated to address these disclosures. AT&T's wireline customer support relationship and management systems would have to be updated to address these issues. All of these tasks would impose millions of dollars of additional costs on AT&T.

61. In addition, sales and customer service representatives will have to spend time explaining the new point-of-sale requirements to customers and responding to questions. This will add time to each sale and it will use additional customer service support time. Even if these

tasks use up only a few minutes of sales and customer service representatives' time each day, these costs could easily exceed several million dollars per year.

VERIFICATION PAGE

I declare under penalty of perjury that, based on the best information available to me, the foregoing is true and correct.

Executed on July 17, 2015.

Dr. Hany Fahmy

ATTACHMENT B

Declaration of Matthew T. Haymons

July 17, 2015

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	
Protecting and Promoting the Open Internet	)	GN Docket No. 14-28
	)	OMB Control No. 3060-1158
	)	

DECLARATION OF MATTHEW T. HAYMONS

July 20, 2015

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I. QUALIFICATIONS AND BACKGROUND

1. My name is Matthew T. Haymons. I am currently Vice President-Technology Solutions Management at AT&T. I have held this position since October, 2014 and have been employed by AT&T for more than 19 years. In my capacity as Vice President-Technology Solutions Management, I am responsible for, among other things, helping to ensure that AT&T's point-of-sale systems provide the proper disclosures to customers.

II. PURPOSE AND SUMMARY

2. I am not a lawyer. However, I understand that there is some uncertainty as to whether the Federal Communications Commission ("FCC"), in its *2015 Open Internet Order*, intended to change the point of sale disclosure requirements. The FCC's most recent guidance, from 2011, states that "[b]roadband providers can comply with the point-of-sale requirement by, for instance, directing prospective customers at the point of sale, orally and/or prominently in writing, to a web address at which the required disclosures are clearly posted and appropriately updated."[1] However, I also understand that the last sentence of footnote 424 in the *2015 Open Internet Order* states: "[i]t is not sufficient for broadband providers simply to provide a link to their disclosures."[2] I understand that it is unclear whether this footnote is intended to reverse the prior guidance on this issue.

3. The purpose of this declaration is to demonstrate that such a change would impose very substantial new burdens on AT&T. Although the FCC has not explained how these disclosures must be made, AT&T has investigated different ways to do it. The bottom line is

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[1] Public Notice, FCC Enforcement Bureau And Office Of General Counsel Issue Advisory Guidance For Compliance With Open Internet Transparency Rule, GN Docket No. 09-191, WC Docket No. 07-52, DA 11-1148 (rel. June 30, 2011) ("*2011 Guidance*").

[2] *In the Matter of Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd. 5601, ¶ 171 n.424 (2015) ("*2015 Open Internet Order*").

that changing the point-of-sale systems would be very burdensome. AT&T has numerous sales channels using dozens of systems and processes at the point of sale. Revising these systems and processes to comply with a new point-of-sale requirement would require substantial development, testing, and deployment that would take several months to a year to complete, at a cost of several million dollars. In addition, sales and customer service representatives will have to be trained and spend time explaining the new point-of-sale requirements to customers and responding to questions. This will add time to each sale and it will use additional customer service support time. Even if these tasks use up only a few minutes of sales and customer service representatives' time each day, these additional costs could easily exceed several million dollars per year.

4. In my view, these new burdens are not offset by any practical uses or other benefits. Existing and potential customers already have access to the full text of AT&T's broadband Internet disclosures from AT&T's website before, during, and after the point of sale. In addition, at the point of sale, customers are provided the link to the AT&T website containing broadband Internet disclosures.

5. If the FCC did intend to alter its existing point-of-sale disclosure requirements such that all or a portion of the text of the broadband Internet disclosures must be provided to customers at the point of sale, the FCC should give providers sufficient lead time to implement those changes before enforcing them and waive the requirements for existing inventory with disclosures contained within packaging. As noted, the point-of-sale systems for numerous sales channels would need to be modified and sales agents would need to be trained. In addition, for many prepaid products, AT&T's disclosures are enclosed within the packaging containing the device purchased by the customer. AT&T already has a substantial inventory of these packaged

devices that will take several months (and perhaps longer) to sell through, and it is not feasible to change the disclosures in these packages. Doing so would require opening each package, replacing the disclosures, and repackaging the device. In many cases, this process would cost more than AT&T would obtain from the sale of the device. These costs would be in the tens of millions of dollars. Accordingly, any new FCC requirements should give providers sufficient lead time to revise all existing disclosures to comply with the new rules, and AT&T should be given waivers from compliance for existing inventory that does not contain those disclosures.

III. PROVIDING ALL OR A PORTION OF THE TEXT OF THE TRANSPARENCY DISCLOSURES AT THE POINT OF SALE WOULD IMPOSE SUBSTANTIAL BURDENS ON AT&T

6. AT&T sells mobile and wireline broadband Internet access services through numerous sales channels. These sales channels use dozens of different systems and processes at the point of sale. Consequently, a new point-of-sale requirement that makes AT&T's current practice of providing a link to its broadband Internet website at the point of sale inadequate, and instead requires AT&T to provide all or a portion of the text of its broadband Internet disclosures at the point of sale, would require substantial changes to each of these point-of-sale systems and processes as well as time training the relevant sales staff and customer service representatives to implement them and respond to customer inquiries about them. It is also important to recognize that modifications to point-of-sale systems require substantial oversight and testing by experienced IT personnel before deployment, because any mistake could be very costly, *e.g.*, lost sales or incorrect recording of customer orders.

7. In the sections below, I describe the numerous sales channels that would require substantial modifications to comply with a new point-of-sale requirement, as well as some of the unique complex issues raised by each sales channel. Overall, revising the point-of-sale systems and processes to include some or all of the text of the broadband Internet disclosures would

require AT&T to plan, design, test and validate changes to as many as 35 systems. In some instances, physical visits to point-of-sale locations will be required. And, because there is significant interdependency and interoperability among all AT&T systems, changes to the different point-of-sale systems must account for their impact on each other and on AT&T's other systems.

8. The FCC does not explain how providers would have to change their point-of-sale systems, and there are many ways to do that. AT&T has examined multiple options, and it is clear that any approach would be extremely costly. AT&T's IT group has estimated that the cost of changing these point-of-sale systems for AT&T's mass market mobile postpaid, GoPhone, Cricket, and wireline systems would almost certainly exceed $6 million. In addition, as described below, these costs do not include the potential need for repackaging devices that already contain the previous point-of-sale disclosures, development of new paper copies of disclosures for sales channels that rely all or in part on paper rather than electronic systems, nor the costs of developing and implementing training for the tens of thousands of AT&T sales and customer service representatives who must become familiar with the new systems in order to implement them and respond to customer questions about them. It also excludes the additional time that sales and customer service representatives will spend responding to questions about the new disclosures. As explained below, these additional tasks could easily add more than $10 million to the cost of the new point-of-sale requirements. In other words, as described below, total costs could exceed $16 million, and could easily be higher.

A. AT&T's Post-Paid Mobile Services.

9. AT&T's post-paid mobile services are sold through *eight* distinct sales channels: (1) AT&T-owned stores; (2) AT&T call centers; (3) AT&T online; (4) national retailers (*e.g.*, Best Buy) in-store; (5) national retailers online; (6) independent dealers in-store; (7) Apple in-

store; and (8) Apple online. The point-of-sale systems and processes for each of these sales channels would have to be modified to comply with a new rule that requires providers to give customers more than a link to the website containing the relevant disclosures. Overall, these changes would require AT&T to develop the new requirements, assess the impact on the systems architecture, develop the required applications, and conduct systems integration testing, end-to-end testing, and implementation.

10. *AT&T Stores.* AT&T operates just over two thousand "brick and mortar" stores, which use one of two point-of-sale systems: a desktop system or a tablet-based portable version. When using the desktop system, customer consent and signatures are captured using the signature capture ("SigCap") terminals at the point of sale. These terminals currently provide customers with a link to AT&T's website containing AT&T's broadband Internet disclosures. Adding all or a portion of the text of AT&T's broadband Internet disclosures to the SigCap system is possible, but it would require AT&T to revise the system. AT&T would have to re-orient content displays on the signature capture devices; re-sequence communications that take place across the network between SigCap terminals and connected systems; remotely deploy updated firmware to approximately 7,500 SigCap devices (this requires approximately two weeks of overnight monitored deployment due to network bandwidth limitations); physically visit and manually install firmware on a few hundred devices (because a small percentage of remote updates typically fail); test, pilot, and deploy point of sale changes in an integrated release; and finally launch full functionality in at least three separate waves over the course of about one month (the waves are required to accommodate the different sales sequences required by different regulations in California, Puerto Rico, and the continental U.S.).

11. Second, some AT&T stores use a tablet-based system. This system also provides customers with a link to AT&T's website containing AT&T's broadband Internet disclosures. Revising this system to provide some or all of the broadband Internet disclosures at the point of sale would require AT&T to enable full content and a scroll box within multiple sales flows, re-orient pages to accommodate new space requirements, re-test all pages among various operating systems and browsers to ensure proper display, and deploy changes in a major integrated release to ensure inter-operability among all systems.

12. When customers purchase service at an AT&T store, AT&T also provides the customer with a customer service summary ("CSS"), which also contains a link to the website containing AT&T's broadband information disclosures. To the extent AT&T is required to modify its CSSs to include all or a portion of the text of AT&T's broadband Internet disclosures, AT&T will incur substantial additional costs.

13. *AT&T Call Centers.* AT&T takes orders for products and services by telephone. It is not practical for AT&T sales representatives to read several pages of broadband Internet disclosures over the telephone. Instead, when a customer purchases AT&T services over the telephone, the customer is provided with a Customer Service Summary Email ("CSS Email") that, among other things, includes a link to AT&T's website containing the broadband Internet disclosures. If the customer is unable to receive an email, the customer is sent a paper copy that includes a link to the broadband Internet disclosures. Revising these systems to provide all or a portion of AT&T's broadband Internet disclosures would require AT&T to re-orient pages of the existing CSS Email to accommodate added verbiage, ensure alignment and appropriate pagination for a variety of features and product sets across all customer types, test the new disclosures on various browsers and applications across multiple operating systems, and deploy

as part of a major release. In addition, the scripts for CSS agents would have to be modified to account for the change in the point-of-sale disclosures.

14. *AT&T Online.* AT&T's online sales channel uses a system that presents the customer with the terms of service and a link to the AT&T website containing the text of AT&T's broadband Internet disclosures. Adding all or a portion of AT&T's broadband Internet disclosures would require AT&T to revise, test, and deploy these systems. AT&T would have to re-orient pages to accommodate new space requirements, and re-test all pages among various operating systems and browsers to ensure proper display.

15. *National Retailers.* AT&T services are also sold through national retailers, such as Best Buy and Wal-Mart. There are more than eight thousand national retailer locations where AT&T's products and services are sold. These national retailers sell AT&T mobility services both in-store and online, and they have their own point-of-sale systems. For in-store sales, AT&T supplies national retailers with booklets containing AT&T's terms of service and other information, which are available to customers at the point of sale. These booklets include a link to the AT&T website containing AT&T's broadband Internet disclosures. In addition, after purchasing service from a national retailer, the customer receives a CSS Email summarizing the transaction, which includes a link to the website containing AT&T's broadband Internet disclosures. To provide all or a portion of the text of these disclosures at the point of sale at national retailers, AT&T would have to develop revised booklets that contain this information that would have to be distributed to the thousands of national retailer locations nationwide. Moreover, many of the transparency disclosures are fluid (*e.g.*, speed, latency, and packet loss) and will have to be periodically updated, which means that new paper versions of the disclosures will have to be developed and provided to the national retailers regularly. In addition, AT&T

would have to revise the systems used to provide the CSS Email so that the email contains the relevant transparency disclosures. Revising these CSS systems would require the same tasks described above for revising AT&T's CSS systems for services sold through AT&T-owned sales channels, plus the additional complications of coordinating with the national retailers.

16. National retailers also sell AT&T postpaid mobility services online through their own websites. These websites currently provide a link to the AT&T website containing AT&T's transparency disclosures. To the extent these systems have to be revised to comply with a new point-of-sale requirement, AT&T would have to assist national retailers as they re-orient pages to accommodate new space requirements, and work with each to re-test all pages among various operating systems and browsers to ensure proper display.

17. *AT&T Mobility Dealers.* In addition to national retailers, AT&T sells mobile services through more than three thousand independent dealers. These dealers generally rely on two separate point-of-sale systems and processes, each of which would have to be modified to comply with a new requirement to present all or a portion of the text of AT&T's broadband Internet disclosures at the point of sale.

18. First, for some dealers, AT&T supplies printed booklets containing relevant terms and conditions, including a link to the website containing AT&T's broadband Internet disclosures. In addition, AT&T provides dealers with a CSS document that the dealer prints and provides to the customer. This CSS document also contains a link to the website containing AT&T's broadband Internet disclosures. To enable dealers to provide all or a portion of the text of AT&T's broadband Internet disclosures at the point of sale, AT&T would have to provide (1) revised booklets that contain those provisions and (2) revised CSS materials that contain those provisions.

19. Second, some dealers have SigCap terminals. These systems currently identify the AT&T website containing the transparency disclosures, and customers can print this information from the SigCap terminal. These SigCap terminals are managed by AT&T. These SigCap systems can be modified to include the text of AT&T's broadband Internet disclosures. However, dealer signature devices have a distinct configuration from AT&T's company-owned retail stores. The dealer devices are connected directly to the point-of-sale terminals as opposed to being networked. AT&T, therefore, would need to re-orient content displays specifically for the dealer signature capture devices; remotely deploy updated firmware to thousands of devices (this requires about two weeks of overnight monitored deployment due to bandwidth limitations); work with dealers to manually install the changes for the small percentage of devices for which remote updates typically fail; and test, pilot and launch full functionality in an integrated release.

20. *Apple Stores.* Apple sells AT&T services through Apple's online store and retail stores. AT&T works closely with Apple to ensure that customers of AT&T's services are presented with the proper information at the point of sale, either online or on Apple's in-store "easy pay" devices. Modifying these processes will require AT&T and Apple to modify the disclosures shown at the point of sale. AT&T would need to assist Apple to re-orient pages to accommodate new space requirements and to re-test all pages to ensure proper display. Apple-impacting projects require substantial coordinated testing.

21. *Connected Vehicles.* AT&T also offers services that permit customers to add compatible vehicles to their mobile data plans, typically to enable a mobile Wi-Fi hotspot within the vehicle. The point-of-sale systems and processes vary for AT&T's various automobile partners. To the extent these systems and processes must be altered to include all or a portion of

the text of AT&T's broadband Internet disclosures, AT&T and its automobile partners would have to revise these point-of-sale systems and processes.

B. AT&T's Mobile Prepaid Services.

22. AT&T's prepaid services raise unique issues. A fundamental feature of prepaid services is that consumers can purchase prepaid devices from many sources and then later activate and fund them. To ensure that prepaid customers obtain required disclosures, AT&T has adopted the industry-wide practice of including the relevant terms of service and disclosures within the packaging.

23. The disclosures contained in the packaging include a link to the AT&T website containing AT&T's broadband Internet disclosures. Changing the rules to require AT&T to instead include all or a portion of the text of AT&T's broadband Internet disclosures in the packaging would impose substantial costs on AT&T. GoPhone and Cricket today have more than [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] pieces of inventory in warehouses and on the shelves of dealers, national retailers, and its own stores. None of this inventory contains the new disclosures. For much of this inventory, the cost of opening each package, adding all or a portion of the text of AT&T's transparency disclosures, and then resealing the packaging would exceed the value of the inventory, and thus it would be more cost-effective to simply throw these items away. AT&T has estimated that the costs of such repackaging would be more than $10 million. Moreover, this issue would arise every time a change must be made to AT&T's broadband Internet disclosures in the future.

24. AT&T would also incur additional costs due to lost sales and other complications caused by shortages that will occur when these devices are removed from store shelves to be repackaged. If existing inventory has to be repackaged before it can be sold, there will be no

inventory to sell while that repackaging takes place. AT&T has estimated that these lost sales could easily result in tens of millions of dollars in lost revenues. Moreover, these costs would be recurring, because the issue will arise every time AT&T has to update its disclosures (*e.g.*, to reflect changes in measured speed, latency, or packet loss metrics).

25. In addition to costs associated with repackaging, as with AT&T's post-paid services, AT&T would have to modify prepaid systems and software. Prepaid customers can activate service in a variety of ways. Where possible, AT&T makes the terms of service and disclosures available again during the activation process. To the extent AT&T is required to provide all or a portion of the text of the broadband Internet disclosures during this process, significant modifications would be required.

26. First, when a GoPhone customer activates service in an AT&T store, a national retailer, or a dealer, paper copies of AT&T's transparency disclosures are available. These materials contain a link to the website containing AT&T's broadband Internet disclosures. To add all or a portion of the text of these disclosures to these materials would require AT&T to develop and distribute new materials to all of these sales channels, and to provide updated materials each time the disclosures change.

27. Second, AT&T GoPhone customers can activate service using the device or by calling an automated telephone system. The systems used for these activations remind the customer that they have obtained the relevant disclosures (in the packaging) and record customer confirmation that they have received such materials. If AT&T were required to add all or a portion of the text of its broadband Internet disclosures, these systems may have to be modified.

28. Third, when GoPhone or Cricket customers activate service using AT&T's or Cricket's online systems, a link to the broadband Internet disclosures is provided. To add all or a portion of the text of these disclosures, these online systems would have to be revised.

C. AT&T's Wireline Services

29. AT&T's wireline services are sold through four distinct sales channels: (1) online; (2) AT&T stores; (3) AT&T call centers; and (4) door-to-door sales. Each of these sales channels shares a common registration online process, and an AT&T customer must generally first register via this process before service is activated.

30. During this registration process customers are provided with the link to AT&T's broadband Internet disclosures. Modifying the systems underlying this online registration process so that it presents the customer with all or a portion of the wireline broadband Internet disclosures would be a substantial undertaking. There are multiple systems underlying this registration process, some of which are region-specific and others affect all regions.

31. Several changes would have to be made to these systems. To the extent AT&T must present some or all of the text of the broadband disclosures at the point of sale, these systems would have to be altered to display the disclosures, and customer service summary emails (and letters) would have to be modified. Making these changes would require developing the new requirements, assessing the impact on the systems architecture, developing the required applications, conducting systems integration testing, end-to-end testing, and implementation.

32. When services are self-installed or installed by a technician, AT&T also makes available a paper copy of the terms of service that includes a link to the AT&T website containing the transparency disclosures. To the extent these paper copies of the terms of service would have to include all or a portion of the broadband Internet disclosures, these documents would have to be updated, printed and distributed. In addition, as with our prepaid wireless

product, updating the disclosures in a self-install kit is a manual process and this process would have to be repeated each time AT&T modifies its broadband Internet disclosures.

D. Additional Burdens.

33. The burdens of a new point-of-sale requirement would not be limited to the substantial time and costs of modifying existing systems and processes. Because customers would have to be shown substantial new materials at the point of sale, AT&T's sales and customer service representatives would have to be trained to understand the revised point-of-sale systems and processes and to ensure compliance with the new requirements. They would also have to be trained to provide accurate responses to customers' questions about these new point-of-sale disclosures. AT&T has tens of thousands of sales representatives and customer service and support representatives. Even assuming that each of these sales representatives can be trained in only one hour, total training time will be tens of thousands of hours at a cost of millions of dollars. In addition, sales and customer service representatives would have to spend time explaining the new point-of-sale process to customers and responding to questions. This will add time to each sale and it will use additional customer service support time. Even if these tasks use up only a few minutes of sales and customer service representatives' time each day, these costs could easily exceed several million dollars per year. Moreover, AT&T will incur additional costs to develop, print, and distribute these training materials. And, there will be ongoing costs to ensuring that existing personnel maintain this training, and to train new sales and customer support employees.

34. And the costs of implementing new point-of-sale requirements are not limited to AT&T and other providers. AT&T's national retailers, dealers, and automobile partners would also incur substantial costs to upgrade their systems and processes.

IV. NO OFFSETTING BENEFITS

35. Although a requirement that providers show customers all or a portion of the text of the transparency disclosures at the point of sale would impose substantial burdens on AT&T, there do not appear to be offsetting benefits. The full text of AT&T's transparency disclosures is available to everyone on AT&T's website. Any potential or existing customer can view those disclosures at any time before, during, and after the point of sale. Moreover, it takes time to update all of the point-of-sale systems and processes, especially those that have paper disclosures. Consequently, any rule that requires all or a portion of the text of the transparency disclosures at the point of sale, rather than a link to AT&T's most up-to-date website, could undermine any benefits of such disclosures because the customer would be receiving outdated and incorrect information.

V. PROVIDERS SHOULD BE GIVEN SUFFICIENT LEAD TIME TO IMPLEMENT ANY NEW POINT-OF-SALE DISCLOSURE REQUIREMENTS AND WAIVERS FOR DISCLOSURES CONTAINED IN PACKAGING IN INVENTORY

36. If the FCC does change its rules to require providers to give customers all or a portion of the text of their broadband Internet disclosures at the point of sale, the FCC should, at a minimum, take two steps to reduce the enormous burdens.

37. First, significant lead time is needed for providers to implement these changes. AT&T estimates that it would take several months to update its systems and processes, implement the necessary sales staff training, and change the packaging of devices that include the disclosures within the device package. Moreover, because implementing these changes to AT&T's systems and processes is complex, disruptive, and expensive, the changes would have to be scheduled for one of the [**BEGIN CONFIDENTIAL INFORMATION**] [**END CONFIDENTIAL INFORMATION**] scheduled times during which AT&T implements major updates to its systems and processes each year. In addition, AT&T, national retailers, and many

dealers "freeze" their point-of-sale systems (*i.e.*, no changes are permitted) during the fourth quarter to avoid potential disruptions or other issues during the important holiday sales season. For these reasons, the FCC should give providers at least one year to comply with any new point-of-sale requirements to allow for sufficient time to develop the new systems and processes and implement them during one of the regularly scheduled update times.

38. Second, the FCC should waive compliance with the new rule for all prepaid inventory up to the date when the new rule goes into effect to avoid the enormous costs (and waste) associated with searching through existing inventory for items packaged prior to the effective date that lack disclosures compliant with the new rules, repackaging those items, and the resulting potential gaps in inventory. Moreover, the Commission should adopt a solution that avoids these costs from recurring every time a provider has to update its broadband Internet disclosures. The Commission's existing rule, which allows providers to supply a link to the broadband Internet disclosures, avoids this problem.

VERIFICATON PAGE

I declare under penalty of perjury that, based on the best information available to me, the foregoing is true and correct.

Executed on July 17, 2015.

Matthew T. Haymons
Vice President-Technology Solutions Management