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REDACTED – FOR PUBLIC INSPECTION

November 26, 2014

VIA ELECTRONIC FILING

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

Re: ***Applications of Comcast Corp., Time Warner Cable Inc., Charter Communications, Inc., and SpinCo for Consent to Assign or Transfer Control of Licenses and Authorizations,*** **MB Docket No. 14-57**
REDACTED – FOR PUBLIC INSPECTION

Dear Ms. Dortch:

Comcast Corporation ("Comcast") hereby submits narrative answers and one accompanying exhibit requested by Commission staff in response to the six questions set forth below.

Question No. 1

How do you respond to claims that Comcast's larger subscriber base will give it an enhanced incentive to engage in exclusionary conduct towards its rivals (e.g., raising their costs), since the benefits of such strategies could be recouped over a larger subscriber base?

Question No. 2

How do you respond to claims that Comcast's larger subscriber base will give it increased bargaining leverage vis a vis programmers? If Comcast does gain greater leverage, does this raise concerns that the Commission needs to address?

Question No. 3

How do you respond to claims that Comcast's larger subscriber base will give it increased bargaining leverage vis a vis CDNs, OVDs, and other edge providers? If Comcast does gain greater leverage, does this raise concerns that the Commission needs to address?

Question No. 4

Comcast has suggested that there is confusion in the record concerning its policies and practices with respect to authentication of applications and devices, including on the X1 and X2. Please elaborate on this subject.

Question No. 5

How do you respond to claims that provisions in Comcast's programming contracts, including MFNs, ADMs, and other windowing provision raise concerns by making it more difficult for OVDs and MVPDs to obtain content on favorable terms?

Question No. 6

What is Comcast's updated assessment of the efficiencies the merger is likely to create? How are these efficiencies merger-specific and verifiable and to what extent will they be passed on to consumers

Comcast submits herewith one copy of the redacted, public version of this filing. The **{{ }}** symbols denote where Highly Confidential Information has been redacted and the **[[ ]]** symbols denote where Confidential Information has been redacted. A Highly Confidential version of this filing, which includes Video Programming Confidential Information in the responses to Questions 1, 2, and 5, has been submitted to the Office of the Secretary pursuant to the terms of the Modified Joint Protective Order in effect in this proceeding.[1]

Please direct any questions to the undersigned.

Respectfully submitted,

/s/ Kathryn A. Zachem

Senior Vice President,
Regulatory and State Legislative Affairs
Comcast Corporation

cc: Hillary Burchuk

Enclosures

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1 *Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Assign or Transfer Control of Licenses and Authorizations*, Second Amended Modified Joint Protective Order, MB Docket No. 14-57, DA 14-1639 (Nov. 12, 2014) ("Modified Joint Protective Order").

Question No. 1

How do you respond to claims that Comcast's larger subscriber base will give it an enhanced incentive to engage in exclusionary conduct towards its rivals (e.g., raising their costs), since the benefits of such strategies could be recouped over a larger subscriber base?

Response to Question No. 1

Comcast understands that with any large merger competitive concerns will be raised and explored. As a matter of economics and marketplace facts, however, Comcast disagrees that a modestly larger footprint increases its incentive to engage in foreclosure or exclusionary conduct toward video distribution rivals. To the contrary, empirical evidence conclusively refutes this theoretical claim. There is no basis to conclude that Comcast's modest gain in national share of MVPD subscribers (from approximately 22% to approximately 29%) will increase its incentives (much less its ability) to engage in exclusionary conduct toward actual or potential video distribution rivals.

It has been suggested by various parties that the proposed transaction would increase Comcast's incentive to engage in three principal "exclusionary" strategies: (1) foreclosure or other exclusionary conduct with respect to access to NBCUniversal content ("content foreclosure"); (2) exclusionary conduct involving "contracts referencing rivals" that have an anticompetitive effect ("CRR foreclosure"); and (3) foreclosure or other exclusionary conduct relating to OVD access to Comcast's broadband network or subscribers. The theory is apparently that Comcast may have greater incentive to foreclose rivals because it will reap a slightly higher proportion of gains from exclusionary conduct if it serves 29% of U.S. MVPD subscribers rather than 22%. Under this theory, a larger MVPD has a better chance of "recapturing" subscribers who cancel their subscription with a rival, thus rendering foreclosure potentially more profitable.

This theoretical claim finds no support in the documents or historical behavior of Comcast. To the contrary, **real-world evidence in the record refutes this claim**. As explained below:

1. **Comcast's Size Has Not Harmed Rivals:** Comcast is already the largest MVPD in the country and has been so for 12 years. If the premise of this question were valid, one would expect to see some evidence that Comcast has been more likely to engage in foreclosure or exclusionary conduct than other MVPDs. The facts refute this, however. Comcast's actual and purported rivals have consistently grown over the last decade while Comcast has lost subscribers. And there is no evidence that Comcast has engaged in any of the categories of anticompetitive conduct identified, much less that it has done so more frequently than smaller MVPDs.

2. **No Content Foreclosure:** With respect to foreclosing access to NBCUniversal content, there are many reasons why this is not a concern, including: (1) there is strong empirical evidence that the immediate harm to Comcast's programming business from any foreclosure strategy would exceed any purported benefit to its

MVPD business; (2) there is no empirical evidence that the vertical integration of Comcast and NBCUniversal has led to higher prices; (3) there is no reason to believe that a modest change from 22% to 29% nationwide share would materially change Comcast's incentives; and (4) the FCC rules and the NBCUniversal Conditions prohibit such foreclosure with respect to MVPDs and OVDs.[1]

3. **CRRs Aren't an Issue:** With respect to CRR foreclosure, there are also a number of reasons why the proposed transaction does not change Comcast's incentives, including: (1) programmers have ample bargaining power to push back on CRRs in their negotiations with MVPDs, including Comcast; (2) OVDs like Netflix also have substantial bargaining power and have reached numerous agreements with programmers that demonstrate that MFNs and ADMs are not major impediments today; (3) Comcast is uniquely constrained in its ability to seek CRR provisions as a result of the NBCUniversal Conditions; (4) even prior to these conditions, Comcast did not generally seek CRR provisions that could be plausibly characterized as anticompetitive; and (5) not all CRRs are anticompetitive – to the contrary, Comcast's MFNs and ADMs are typically procompetitive for the reasons set forth in Comcast's response to Question No. 5.

4. **OVD Foreclosure Is Implausible:** With respect to OVD foreclosure, there are several reasons why this transaction does not give rise to any increased incentive to harm OVDs, including: (1) the two leading OVDs (Netflix and Google) have long-term interconnection agreements that make foreclosure of them and other OVDs implausible; (2) OVDs are complementary to Comcast's (and TWC's) high-margin broadband business and Comcast's programming business, both of which would be harmed by OVD foreclosure; (3) foreclosure in the interconnection market is not facilitated by Comcast's "larger footprint" and in all events is impractical and not borne out by the evidence; and (4) foreclosure on Comcast's last-mile network is prohibited by the Open Internet rules that apply uniquely to Comcast and will extend to TWC as a result of the transaction.

A. Foreclosure Theory Finds No Support in the Real World

Before turning to any particular theory, it is worth establishing some baseline facts.

First, Comcast is already the largest MVPD in the United States and has been so for 12 years. It has owned NBCUniversal for almost four years. We are aware of no facts suggesting

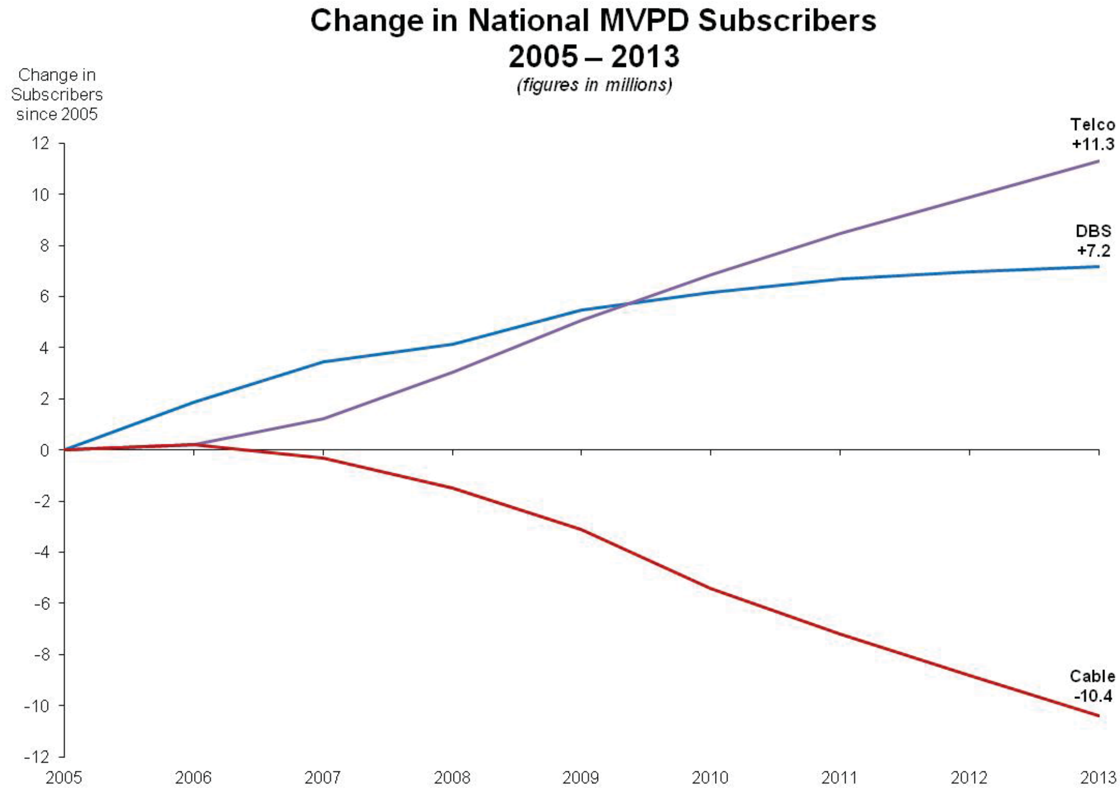
[1] *See* Modified Final Judgment, *United States v. Comcast Corp.*, No. 1:11-cv-00106-RJL (D.D.C. Aug. 21, 2013) ("DOJ Consent Decree"), V.B-C, *available at* http://www.justice.gov/atr/cases/f300100/300146.pdf; *see Applications of Comcast Corp., Gen. Elec. Co. and NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licenses*, Memorandum Opinion and Order, 26 FCC Rcd. 4238, 4361, App. A. IV.B (2011) ("FCC Order" and, together with the DOJ Consent Decree, the "NBCUniversal Conditions"), *available at* https://apps.fcc.gov/edocs_public/attachmatch/FCC-11-4A1.pdf. Comcast will acquire systems from each of Time Warner Cable and Charter. While Comcast has not yet reviewed the programming agreements for these distributors, neither operates under the conditions that Comcast currently does.

that Comcast's size or vertical integration has incentivized it to engage in exclusionary conduct toward rivals – or that it has actually done so. There is no MVPD in the United States under greater regulatory scrutiny than Comcast – and it is subject to extensive and detailed reporting and compliance obligations to the Antitrust Division of the U.S. Department of Justice and the FCC.

Second, the proposed transaction returns Comcast to approximately the same share of MVPD subscribers it served after the AT&T Broadband and Adelphia transactions (approximately 29%), both of which were approved without conditions by the antitrust authorities and the FCC. The antitrust authorities and the FCC have examined the issue of Comcast's size exhaustively and found no basis for concern. The D.C. Circuit has also twice concluded – in eras when there was less competition among MVPDs (and online video distribution had yet to emerge) – that there is no basis to find that a single cable operator at Comcast's post-transaction subscriber level presents any competitive threat.[2]

Third, the video distribution marketplace has become steadily more competitive notwithstanding Comcast's size. DBS providers have consistently taken share from cable companies like Comcast. Telco companies – Verizon, AT&T, and CenturyLink – have expanded their services very successfully across Comcast's and TWC's footprints. There are also cable and fiber overbuilders, such as RCN, WOW!, and recently Google Fiber. The result is steady subscriber gains by actual or potential competitors and losses by Comcast (along with other cable MSOs).

[2] *See Comcast Corp. v. FCC*, 579 F.3d 1, 8 (D.C. Cir. 2009); *see also Time Warner Entm't Co. v. FCC*, 240 F.3d 1126, 1136 (D.C. Cir. 2001).



Source: SNL Kagan; SEC filings; FCC Video Competition Reports

Note: The numbers beneath each provider name indicate the change in subscribers between 2005 and 2013. Subscribers are pegged to zero in 2005.

OVDs have also grown rapidly. Comcast understands why there may have been a concern in 2010 about whether Comcast/NBCUniversal would seek to thwart the development of OVDs, as those services were just emerging, and it was still an open question as to whether video habits would migrate online. Comcast disagreed that it had any incentive to harm OVDs then, but in the interim, OVDs have exploded so much so that the notion that any firm could seriously hamper OVD competition today seems implausible.

- Netflix now has more than 37 million customers in the United States alone, with another 16 million international customers – and now has sufficient bargaining power to obtain exclusive content. Indeed, Netflix has the power to obtain exclusive content **{{** **}}**.[3]

- Google's video websites attract over 157 million unique viewers each month who watch nearly 13 billion videos.

- Apple iTunes viewers purchase more than 800,000 TV episodes and more than 350,000 movies per day.

[3] *See* COMC-MAF-00046144 at 244; *see also* COMC-LAR-00023466.

- Amazon Prime (with approximately 27 million subscribers), Hulu (more than 5 million subscribers), and Vimeo, among others, are established sources of online video, and Dish and Sony – two substantial players in the video marketplace – are poised to launch linear OTT services.

- HBO announced plans to launch an online streaming service in 2015 that will not require an MVPD subscription, and CBS recently launched an online subscription video service called CBS All Access that includes current and classic programming as well as a live-stream of its broadcast network.[4]

It is inconceivable that Comcast's growth from 22% to 29% of U.S. MVPD subscribers is going to give it an increased incentive or ability to "turn back the clock" on this dynamic marketplace or otherwise inhibit its future growth.

Fourth, since Comcast acquired NBCUniversal, the combined firm has not had the types of carriage disruptions with MVPDs that other programmers have had. Even the current dispute with Dish seems driven by a broad policy decision by Dish rather than the particulars of negotiations with NBCUniversal, since Dish has the same issues with three unrelated programmers as well. The resulting potential drop with Dish is one that NBCUniversal had hoped very much to avoid. But in all events, this one dispute pales in comparison to the many high-profile disputes, including a number of carriage "blackouts," involving other (non-vertically integrated) content companies and other MVPDs during the last several years. For example, recent programming disputes have occurred with CBS and TWC, Fox and Cablevision, and Disney and Dish.[5] And, as discussed below, empirical evidence shows that Comcast's acquisition of NBCUniversal has not had any adverse effect on NBCUniversal's pricing.[6]

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[4] *See* Emily Steel, *HBO Plans New Streaming Service, With Eye on Cord Cutters*, N.Y. Times (Oct. 15, 2014), http://www nytimes.com/2014/10/16/business/media/time-warner-chief-to-brief-investors-on-plans-for-growth.html; *See* Joe Flint, *CBS Launches Online Subscription Video Service*, Wall St. J. (Oct. 16, 2014), http://online.wsj.com/articles/cbs-launches-online-subscription-video-service-1413465013.

[5] *See, e.g.*, Alex Sherman, *Dish Extends Disney Deadline to Avoid ESPN, ABC Blackout*, Bloomberg (Oct. 1, 2013), http://www.bloomberg.com/news/2013-10-01/dish-reaches-extension-with-disney-avoiding-espn-abc-blackout html; Bill Carter, *CBS Returns, Triumphant, to Cable Box*, N.Y. Times (Sep. 2, 2013), http://www nytimes.com/2013/09/03/business/media/cbs-and-time-warner-cable-end-contract-dispute html ("The outcome underscored the leverage that the owners of important television content . . . retain over distributors like cable systems. . . . Mr. [David] Bank [media analyst for RBC Capital Markets] said that, if anything, the deal may make it easier for networks to press cable and other distributors like satellite systems to squeeze out more favorable fees."); David Lieberman, *NO DEAL! CBS And Showtime Go Dark on Time Warner Cable*, Deadline (Aug. 2, 2013), http://deadline.com/2013/08/no-deal-cbs-goes-dark-on-time-warner-cable-555649/ ("TWC says that 'CBS has refused to have a productive discussion. It's become clear that no matter how much time we give them, they're not willing to come to reasonable terms.'"); Brian Stelter and Bill Carter, *Fox-Cablevision Dispute May Obstruct Customers' View of World Series*, N.Y. Times (Oct. 24, 2010), http://www nytimes.com/2010/10/25/business/media/25cable html ("Cablevision . . . blamed the News Corporation for trying to 'extort unreasonable and unfair fee increases.'").

[6] The two disputes with OVDs – Project Concord and Sky Angel – had nothing to do with whether Comcast was willing to license its content to the OVDs, or even the terms on which it would do so. The dispute with Project Concord concerned principally whether NBCUniversal could decline to license content to an OVD that

Fifth, Comcast's business people do not make decisions using the "vertical math" models that underlie foreclosure theories. Comcast's internal documents do not suggest that Comcast has sought to acquire TWC in order to raise its rivals' costs or engage in other exclusionary strategies. There is no evidence that Comcast's business people anticipate that exclusionary strategies will suddenly become more profitable because they can "recapture" a slightly higher share of rivals' subscribers. This stands in contrast to recent antitrust cases (like Bazaarvoice/PowerReviews and H&R Block/TaxAct) where contemporaneous business documents expressly stated that the acquiror expected that a proposed transaction would raise prices or reduce competition.

Sixth, Comcast is uniquely constrained by FCC rules and the NBCUniversal Conditions prohibiting discrimination against MVPDs or OVDs. These limitations have proven to be unnecessary and were only invoked once (unsuccessfully). But it is indisputable that the transaction will extend these limitations to TWC. Thus, if one has concerns about exclusionary conduct, such concerns should be alleviated, not exacerbated, by the transaction.

B. <u>No Enhanced Incentive to Foreclose NBCUniversal Programming</u>

Some parties have suggested that the transaction would increase Comcast's incentive to withhold its affiliated programming from MVPDs and OVDs or, alternatively, would increase Comcast's bargaining leverage in licensing negotiations with rival MVPDs or OVDs. The basic "vertical math" theory is that a larger MVPD footprint would allow Comcast to recapture a greater proportion of subscribers who switch from rivals, thus increasing the profitability of foreclosure strategies.

The empirical evidence conclusively refutes this theoretical concern, however. As explained below, the real and immediate costs (to NBCUniversal) of such foreclosure strategies are greater than any minor, speculative, future benefit Comcast Cable may gain from the strategies. There is no evidence that NBCUniversal has engaged in such strategies since its acquisition by Comcast. And as an additional safeguard, the NBCUniversal Conditions already address any remaining theoretical concern.

1. The Costs of Foreclosure Outweigh the Benefits

Comcast lacks the incentive to pursue any temporary or permanent foreclosure strategy because the costs would outweigh any potential benefits. To begin with, the costs of temporary or permanent foreclosure are substantial. Refusing to license NBCUniversal content to MVPDs and OVDs would sacrifice substantial licensing fees and advertising revenues. That is increasingly true now that NBCUniversal has begun to collect retransmission consent fees for O&O stations and is earning substantial fees from licensing content to OVDs (approximately

it was contractually prohibited from licensing (in a separate ordinary course licensing agreement). Comcast prevailed on this issue. The dispute with Sky Angel concerned a similar issue – again, whether NBCUniversal could decline to license content that it was contractually prohibited from licensing. Sky Angel declined to pursue the OVD remedies in the DOJ Consent Decree and FCC Order and instead sought access to programming as an MVPD.

{{ }}).[7] In addition, if an OVD successfully launches without NBCUniversal's programming, it threatens to render such programming irrelevant to every one of those subscribers, which could have a long-term reputational and business impact on NBCUniversal.

The benefits of temporary or permanent foreclosure are unlikely to outweigh these costs. NBCUniversal has some important and valuable content, but its overall share of the television programming market is small (11-12% by revenue) and virtually unchanged as a result of this transaction.[8] If consumers were denied access to NBCUniversal content through their current MVPD or OVD, the vast majority would simply watch substitute programming (e.g., TNT instead of USA Network), rather than switch video providers. For the small number who might switch, there is no guarantee that many would switch to Comcast versus other distributors (either MVPDs or OVDs).

The empirical analysis of Drs. Rosston and Topper confirms this conclusion. They applied a variety of empirical models previously employed by the FCC to assess vertical foreclosure effects. Notwithstanding the limitations of those models,[9] they demonstrate that the incremental increase in Comcast's footprint will not overcome the strong incentives Comcast faces to sell programming to willing buyers at fair market prices.[10] Specifically, Drs. Rosston and Topper applied the FCC's foreclosure model to the NBC O&O stations, NBCUniversal cable networks, and Comcast and TWC regional sports networks ("RSNs"). They looked at real-world instances of temporary withholding of similar content.[11] They found that the empirical departure rates (i.e., the rate of subscriber switching from a foreclosure event) are relatively small and generally far below the departure rates necessary to render foreclosure profitable. In other words, the losses sustained by Comcast's programming sales business for either temporary or permanent foreclosure would outstrip any theoretical increase in MVPD revenues arising from subscribers switching to Comcast.[12]

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[7] *See* Comcast Response to the Federal Communications Commission's Request for Information Issued to Comcast Corporation on August 21, 2014 ("FCC RFI Response"), Exhibit 19.5(a).

[8] The transaction only increases Comcast's share of total network revenues (including those related to broadcast networks, cable networks, and RSNs) from 11.61% to 11.86%, an increase of 0.25%. *See* Applications and Public Interest Statement of Comcast Corporation and Time Warner Cable Inc., Exhibit 5, Declaration of Gregory L. Rosston and Michael D. Topper ¶ 212, MB Docket No. 14-57 (Apr. 8, 2014) ("Rosston/Topper Decl.").

[9] *See* Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, Exhibit 2, Reply Declaration of Gregory L. Rosston and Michael D. Topper ¶¶ 127-134, MB Docket No. 14-57 (Sept. 23, 2014) ("Rosston/Topper Reply Decl.").

[10] *See* Rosston/Topper Reply Decl. ¶¶ 135-80.

[11] Namely, Drs. Rosston and Topper looked at the Media General/Dish and CBS/TWC disputes. *Id.* ¶ 143.

[12] *See id.* ¶ 135.

In addition, Drs. Rosston and Topper analyzed prices for NBCUniversal's programming before and after the Comcast-NBCUniversal transaction relative to other cable networks that were not vertically integrated throughout the same period. They found no resulting price effect, refuting any claims of increased prices due to vertical integration.[13] These empirical results do not support the position that the incremental vertical integration arising from the present transactions will lead to higher NBCUniversal programming prices to rival MVPDs.[14]

Foreclosure is even less likely to be a successful strategy with respect to OVDs. OVDs are much less close substitutes than MVPDs for Comcast – which should mean that any "diversion" to Comcast through foreclosure would be *even lower* than the extremely small diversion seen for MVPDs. Netflix has itself commented that: "In the USA, MVPDs have remained stable at about 100M subscribers while Netflix has grown to over 37M members. The stability of the MVPD subscriber base, despite Netflix's large membership, suggests that most members consider Netflix complementary to, rather than a substitute for, MVPD video."[15] Other MVPDs concur.[16] For example, OVDs' library content that allows consumers to watch entire prior seasons of popular shows complements the current season and live content delivered by MVPDs, as viewing prior seasons promotes current-season viewing and vice versa.[17] MVPDs mostly offer linear feeds, which the most popular OVDs do not do. While there is competition for services such as electronic sell-through ("EST") and subscription video on demand ("SVOD"), much of MVPDs' and OVDs' services are complementary.

As a result, if Comcast attempted to harm an OVD by withholding NBCUniversal programming (or anticompetitively increasing its price), it would be even less likely to gain incremental subscribers or revenue. Even if a small number of subscribers of a foreclosed OVD would leave the OVD due to its loss of NBCUniversal programming, those subscribers, by their revealed preference for OVDs, would be more likely to switch to other similar OVDs, rather than increase their purchases of Comcast MVPD services.

Even if OVDs begin to offer linear service designed to compete with MVPD services, they will almost certainly be national (if not international) competitors. Withholding content from them would yield no benefit to Comcast outside of its footprint, making this a very expensive and dubious competitive tactic for the company. Moreover, it is highly speculative

[13] *Id*. ¶¶ 111-26.

[14] *Id.* ¶ 111.

[15] Netflix, Inc., Netflix Long Term View, http://ir netflix.com/long-term-view.cfm (last accessed Nov. 7, 2014).

[16] *See, e.g.*, Applications of Comcast Corp., Time Warner Cable Inc., Charter Communications, Inc., and SpinCo for Consent To Assign or Transfer Control of Licenses or Authorizations, Dish Network Corporation Petition to Deny at 18-19, MB Docket No. 14-57 (Aug. 25, 2014) ("OTT video providers – including Netflix, Amazon, and Hulu – today serve as a complement to traditional MVPD subscriptions.").

[17] *See, e.g.*, COMC-STM-00235880 at 90.

that an OVD that has all other providers' linear content would be unable to launch without NBCUniversal's content. And if they were to do so, as noted above, NBCUniversal would risk being rendered irrelevant to the next generation of video subscribers and would risk long-term reputational and business harm as the one programmer to withhold its content from this new model. Such a strategy makes no sense for a company seeking to remain prominent and relevant in the content licensing business.

2. Comcast's Track Record Proves It Will Not Withhold Content

Since Comcast acquired control over NBCUniversal, it has successfully licensed or renewed programming agreements with all MVPDs with which it negotiates.[18] Each of these negotiations has occurred without formal resort to the NBCUniversal arbitration provisions. As noted above, Comcast has not threatened to withhold or actually withheld content from any MVPD (although some MVPDs, like Dish, have dropped networks), in marked contrast to its content company competitors, many of whom have had well-publicized disputes and "blackouts" with MVPDs.

Further, only one OVD has elected to proceed to arbitration, and that company's claim was rejected by the arbitrator and at the FCC.[19] Otherwise, NBCUniversal has reached licensing deals with Netflix, Amazon, and a host of other OVDs without issue. NBCUniversal has actively engaged with "linear" OVDs, such as Intel, Sony, and Dish PSS.[20] NBCUniversal recently reached an agreement to license its content to Sony for a linear OVD service. Real-world evidence, therefore, powerfully refutes the suggestion that Comcast has, or will have, an increased incentive to discriminate against MVPDs or OVDs.

Any residual concern that the combined company will withhold programming is addressed fully by the FCC's existing program access regulations[21] and the NBCUniversal Conditions. The Conditions give MVPDs arbitration rights in disputes over the terms and conditions of carriage of Comcast-NBCUniversal O&O programming, RSNs, or the full bundle of cable programming.[22] The FCC Order also provides that OVDs must receive "non-discriminatory access to Comcast-NBCU video programming," either on the same terms and

[18] Including Verizon, Cablevision, Dish, NCTC, and 20 other MVPDs.

[19] *See supra* n.5; *see also* Applications and Public Interest Statement of Comcast Corporation and Time Warner Cable Inc. at 108-109, MB Docket No. 14-57 (Apr. 8, 2014) ("FCC Public Interest Statement"); Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments at 89-90 & n.255, MB Docket No. 14-57 (Sept. 23, 2014) ("FCC Opposition and Response").

[20] Indeed, **[[**
]]. *See* COMC-BOM-00021504.

[21] *See generally* 47 C.F.R. §§ 76.1000-1004.

[22] *See* FCC Order, 26 FCC Rcd. 4238, 4273 ¶ 87, App. A II, VII.

conditions that are made available to MVPDs for the full bundle of licensed programming or on terms comparable to those offered to OVDs by Comcast's non-vertically integrated peers.[23]

Like MVPDs, OVDs also have the ability to arbitrate disputes in defined circumstances.[24] Again, these protections have never proved necessary, and by the end of their current term, as market conditions change and technology develops, they likely will be even less necessary. Nevertheless, in the near term, the proposed transaction brings these protections, necessary or not, to TWC's territory.

C. <u>No Enhanced Incentive to Engage in Exclusionary Conduct Through Contracts Referencing Rivals ("CRRs")</u>

An alternative theory of "exclusionary conduct" may be that post-transaction, Comcast would have greater "bargaining power" to extract contractual provisions from programmers that disadvantage Comcast's rivals. With respect to "most favored nations" ("MFN") and "alternative distribution methods" ("ADM") provisions, this issue is addressed in greater detail in Comcast's response to Question No. 5. As explained in that submission, there seem to be some misconceptions about Comcast's contracting practices, which are refuted by an examination of the actual contracts.

First, there is no particular relationship between MVPD size and the use of MFN or ADM provisions. **{{** **}}**.[25] Moreover, even before the NBCUniversal transaction orders, Comcast was focused primarily on obtaining ADM provisions limiting the *free distribution* of content that Comcast paid for – precisely the kinds of provisions permitted for 30 days by the NBCUniversal Conditions – not prohibitions on online content for a fee.[26]

Second, programmers have significant bargaining leverage and do not acquiesce to MFN and ADM provisions that are unattractive to them. At the same time, OVDs are also powerful negotiators vis-à-vis programmers and are able to extract terms from programmers that disadvantage cable distributors. Netflix alone reportedly will spend about $3 billion on content in 2014.[27] OVDs like Netflix and Amazon Prime have exercised their bargaining leverage to

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[23] *Id.* at 4273 ¶¶ 87-88.

[24] *Id.* ¶ 89.

[25] FCC RFI Response Exhibit 22.1.

[26] *See, e.g.*, COMC-SCM-00063918 **{{** **}}**, COMC-UCM-00010807 **{{** **}}**, COMC-UCM-00028537 **{{** **}}**, COMC-UCM-00003781 **{{** **}}**. *See also* FCC Order, 26 FCC Rcd. 4238 ¶ 50, App. A.IV.B.

[27] Mark Sweney, *Netflix to spend $3bn on TV and film content in 2014*, Feb. 5, 2014, http://www.theguardian.com/media/2014/feb/05/netflix-spend-3-billion-tv-film-content-2014; Netflix, Inc., 2013 10-K at 28 (Feb. 3, 2014), *available at* http://ir netflix.com/secfiling.cfm?filingID=1065280-14-6&CIK=1065280.

obtain extensive exclusive programming.[28] Indeed, as evidence of its bargaining power, Netflix has obtained exclusive content which cannot be distributed by other OVDs or MVPDs, including Comcast. It has also obtained **{{ }}**.[29] For example, **{{ }}**.[30] Provisions like this have impeded Comcast's ability to offer full-season content to its subscribers.

Third, while unnecessary for the reasons discussed above, Comcast is uniquely constrained in its ability to seek provisions that may disadvantage its rivals (e.g., ADM clauses).[31] The NBCUniversal Conditions generally prohibit Comcast from entering into or enforcing carriage agreements that limit a programmer's provision of video programming to OVDs, except under certain very limited circumstances.[32] TWC faces no such restrictions. To the extent that one is concerned about the use of CRRs, the proposed transaction is beneficial, as it will subject TWC to the same restrictions as Comcast.

D. <u>No Increased Incentive to Use Comcast's Broadband Network to Foreclose OVDs</u>

The transaction will not give the merged firm an enhanced incentive to degrade or block OVD access to Comcast's broadband customers. Commenters have suggested two such foreclosure strategies: (1) discriminating against OVD traffic on Comcast's "last-mile" network and (2) charging higher fees to "interconnect" with Comcast's network or otherwise degrading access to customers. The first strategy is already flatly prohibited by the FCC's Open Internet rules, to which Comcast is uniquely subject now (and will be bound in the future, though, by industry-wide FCC rules) and which Comcast supports fully. So this should simply be a non-issue. The second strategy is implausible for a number of reasons discussed below:

- *First*, Comcast has long-term, very inexpensive, interconnection agreements with the **{{ }}**, Netflix **{{ }}**. The aggregate amount of money involved in these deals is trivial for these large firms. These

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28 *See, e.g.*, Hilary Lewis, *Netflix to Focus on Adding Exclusive, Highly Rated Content, CFO Says*, Hollywood Reporter (May 20, 2014), http://www.hollywoodreporter.com/news/netflix-focus-adding-highly-rated-705921.

29 One of Comcast's priorities is to secure "stackable" rights to current-season programming on Comcast's VOD and TV Everywhere platforms – that is, the rights to every previously aired episode of an in-season series. Letter from Kathryn A. Zachem, Comcast Corporation, to Marlene H. Dortch, FCC, MB Docket 14-57 (Oct. 16, 2014).

30 *See* COMC-MAF-00046144 at 244; *see also* COMC-LAR-00023466.

31 Such provisions limit the ability of a programmer to distribute the same programming via alternative means.

32 FCC Order, App. A IV.B.3; DOJ Consent Decree V.C.1-3.

agreements make foreclosure implausible in the real world. They also substantially reduce any incentive to harm other OVDs because the most likely beneficiary of these strategies would be Netflix **{{ }}**, not Comcast.[33]

- *Second*, as Drs. Israel and Carlton demonstrate, it would be economically irrational for Comcast to use interconnection as a tool of vertical foreclosure of OVDs because, even if successful, this would shift business from Comcast's higher margin broadband service to its lower margin video service. OVDs are complements that make Comcast's broadband product more attractive to consumers.[34] For Comcast, this incentive is further enhanced by the substantial and growing amount of money that OVDs pay NBCUniversal for content.

- *Third*, foreclosure of interconnection is not plausible given the multitude of paths into Comcast's network. Any effort to engage in such foreclosure would require Comcast to cut its customers off from wide elements of the Internet, thereby degrading its profitable broadband product substantially.

1. Commercial Agreements with Netflix and Other OVDs Make Foreclosure Implausible

Comcast's commercial agreements with Netflix and **{{ }}** provide real-world evidence that renders implausible any foreclosure of OVDs via interconnection. Netflix, **{{ }}** protected by contract from the combined entity attempting to harm it through foreclosure or increased pricing. As Dr. Carlton explained in his declaration to the FCC, such agreements reflect Comcast's incentive to reach a mutually beneficial vertical arrangement with edge providers, rather than attempting to harm them, because their presence makes Comcast's broadband service more attractive to consumers.[35]

Earlier this year, Netflix signed an **{{ }}** agreement with Comcast that provides **{{ }}**. The **{{ }}** – exactly the opposite of what one would expect if Comcast were attempting to "foreclose" Netflix or retard its growth.[36] Similarly, **{{**

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[33] *See* FCC Opposition and Response, Exhibit 3, Declaration of Dennis W. Carlton ¶¶ 14-15 ("Carlton Decl."); FCC Opposition and Response, Exhibit 1, Reply Declaration of Mark A. Israel ¶ 119 ("Israel Reply Decl.").

[34] *See* Carlton Decl. ¶¶ 11-12 & n.24 (citing Patrick Rey & Jean Tirole, *A Primer on Foreclosure*, in *Handbook of Industrial Organization*, Vol. 3, at 2182 (Mark Armstrong & Robert H. Porter, eds. (2007)); FCC Public Interest Statement, Exhibit 6, Declaration of Mark A. Israel ¶¶ 163-66 ("Israel Decl."); Israel Reply Decl. ¶¶ 122-24.

[35] *See id.* ¶ 15.

[36] Israel Reply Decl. ¶ 119.

}}. Such agreements substantially reduce the incentive to harm other OVDs because the most likely beneficiary of these strategies would be Netflix **{{ }}**, not Comcast. As discussed above, even if consumers opted to switch from a foreclosed OVD, those subscribers, by their revealed preference for OVDs, would be more likely to switch to other similar OVDs,[37] like Netflix **{{ }}**, rather than increase their purchases of Comcast's video services.

Thus, real-world evidence undermines any claim that the proposed transaction would increase Comcast's incentive to foreclose OVDs or otherwise harm them.

2. Degrading OVD Access Would Harm Comcast

Degrading access to OVDs would also harm valuable Comcast businesses more than it would purportedly benefit its MVPD business for the following reasons.

First, OVDs help drive demand for Comcast's broadband service (which is increasingly valuable relative to Comcast's video business) and help grow the market for NBCUniversal content, two trends that have increased in importance over time. Comcast's and TWC's broadband businesses are higher-growth than their video businesses.[38] According to an October 2013 internal Comcast overview of customer lifetime value ("CLV"), the CLV for a data-only customer is **{{ }}** that of a video-only customer.[39] Put differently, Comcast would need to acquire at least **{{ }}**. Harming its broadband service would also result in the loss of double-play customers. Comcast would need to add **{{ }}**. If anything, the proposed transaction reinforces the disincentive to degrade or harm Comcast's broadband business by attempting to harm OVDs.

And OVDs are a critical input in the value proposition for attracting and retaining subscribers to Comcast's broadband service. Comcast must meet its customers' demand by

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[37] *See, e.g.*, Carlton Decl. ¶ 15.

[38] In the third quarter of 2014, Comcast's broadband customers increased by 315,000, while video customers decreased by 81,000, similar to results in recent quarters. TWC's broadband customers increased by 92,000, while video customers decreased by 184,000. Comcast, *Comcast Reports 3rd Quarter 2014 Results*, Oct. 23, 2014, *available at* http://files.shareholder.com/downloads/CMCSA/3607446794x0x788090/ee6c3c0b-cb45-4f37-9eab-26368f1c5a01/CMCSA_News_2014_10_23_General_Releases.pdf; TWC, *Time Warner Cable Reports 2014 Third-Quarter Results*, Oct. 30, 2014, *available at* http://ir.timewarnercable.com/investor-relations/investor-news/financial-release-details/2014/Time-Warner-Cable-Reports-2014-Third-Quarter-Results/default.aspx.

[39] This information is taken from Comcast's October 2013 presentation titled "Customer Lifetime Value (CLV)," which was developed by the Finance Department at Comcast. *See* COMC-COM-00009260. While this does not represent the only possible way of calculating CLV, it demonstrates one way that the company has made this calculation in the past. CLV is based on **{{ }}**.

providing access to any content consumers want (including popular high-bandwidth video content) so that existing customers continue to demand its service or upgrade to even faster service. As one of the most powerful OVDs, Netflix, tells investors: "The more successful Netflix becomes, the more important we are to the ISPs' subscribers."[40] Many commenters in the merger review proceedings have contended that Comcast's highest broadband speeds are especially attractive to heavy users of online video: "Comcast subscribers, after all, do not purchase 105 Mbps broadband connections just to send email or surf the web. They purchase high-speed broadband to use that capacity to its fullest – likely to consume rich media content, including streaming video."[41] To the degree that this is so, it illustrates why it would be against Comcast's interest pre- and post-transaction to devalue its broadband service by trying to block or degrade online video traffic.

Second, and relatedly, evidence strongly supports that blocking or degrading OVD service would cause Comcast to risk losing broadband customers – or would cause them to downgrade their broadband service or decline to purchase a higher tier of broadband service. According to a survey recently conducted by Global Strategy Group ("GSG") at Comcast counsel's request, most consumers would readily switch ISPs, including to a DSL or wireless provider with slower speeds, if their provider were to degrade access to edge provider content or streaming video.[42] These findings are in line with the results of a survey conducted by Consumer Reports earlier this year.[43]

Consumers also tend to blame ISPs for unsatisfactory OVD performance, regardless of the cause. During the brief period in late 2013 and early 2014 when Netflix quality declined in some cases to Comcast customers during the Netflix/Cogent dispute with Comcast, Comcast

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[40] Netflix, Inc., Netflix Long Term View, http://ir netflix.com/long-term-view.cfm (last visited Nov. 7, 2014).

[41] Applications of Comcast Corp., Time Warner Cable Inc., Charter Communications, Inc., and SpinCo for Consent To Assign or Transfer Control of Licenses or Authorizations, Netflix, Inc. Petition to Deny at 66, MB Docket No. 14-57 (Aug. 25, 2014).

[42] 82% of respondents would switch ISPs if their provider blocked, degraded, or otherwise slowed access to Internet content; 79% would switch to a DSL or wireless provider – and, asked another way, 73% would switch to another ISP even if that ISP offers slower speeds. The survey was produced in response to FCC Request No. 74(e). Comcast Corporation, Response to the Federal Communications Commission's Request for Information Issued to Comcast Corporation on August 21, 2014, as Modified, at 195-204, Exhibits 74.2, 74.3 (Sept. 11, 2014); *see also* Israel Reply Decl. Appendix I.

[43] According to that survey, 71% of respondents said they would switch to an alternative ISP if their provider were to try to block, slow down, or charge more for services such as Amazon Instant Video, Netflix, Pandora, and Skype. The nationally representative survey was conducted by the Consumer Reports National Research Center in February of 2014 and sampled 800 U.S. households with broadband service. Glenn Derene, *71% of U.S. Households Would Switch from Providers That Attempt to Interfere with Internet*, Consumer Reports (Feb. 18, 2014), *available at* http://consumerreports.org/cro/news/2014/02/71-percent-of-households-would-switch-if-provider-interferes-with-internet-traffic/index.htm.

experienced a surge in Netflix-related customer service calls.[44] Comcast customers reacted strongly to this temporary and isolated event, which involved no change in Comcast's business practices or policies, and press reports overwhelmingly blamed Comcast.[45] As industry expert Dr. Constantine Dovrolis observes, "Internet users typically complain to their access provider . . . when they experience the effects of poor interconnection . . . As a result, the risk of poor network performance is mostly borne by access providers like Comcast."[46]

Most consumers have access to more than one fixed broadband provider, and their choices are growing over time. As of June 2013, 99% of households are located in census tracts with at least two fixed broadband providers (78% in census tracts with at least three), and their choices, including at higher broadband speeds, are growing. 92% of households are located in census tracts where at least two wireline providers reported offering at least 10 Mbps speeds (up from 22% of households in December 2009).[47] While some parties have advocated that DSL be excluded from the broadband market, that makes little sense as millions of consumers today use DSL, including for online video consumption.[48] Major online video providers – such as Hulu and Amazon – recommend speeds for high-definition and standard-definition videos that are well

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[44] Netflix-related service calls spiked by approximately **{{ }}**%, from **{{ }}** per month before the onset of the decline to more than **{{ }}** per month during the decline, which lasted from November 2013 through February 2014. *See* Israel Reply Decl. ¶ 56.

[45] The impact on churn was less clear, which is not unexpected because there was widespread media coverage reporting similar issues among other ISPs, such as Verizon and AT&T, to which customers would have considered switching. *See* McElearney Decl. ¶ 42; Dan Rayburn, *New Data Questions Netflix's Assertion that ISPs Are At Fault For Poor Quality*, June 10, 2014, http://blog.streamingmedia.com/2014/06/netflix-isp-newdata.html. *See, e.g.*, Jon Brodkin, *Netflix performance on Verizon and Comcast has been dropping for months*, Ars Technica (Feb. 10, 2014), http://arstechnica.com/information-technology/2014/02/netflix-performance-on-verizon-and-comcast-has-been-dropping-for-months.

[46] Dovrolis Decl. at 17.

[47] Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, Internet Access Services: Status as of June 30, 2013, at 9 (June 2014), https://apps.fcc.gov/edocs_public/attachmatch/DOC-327829A1.pdf; Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, Internet Access Services: Status as of December 31, 2009, at 7 (Dec. 2010), https://apps.fcc.gov/edocs_public/attachmatch/DOC-303405A1.pdf.

Moreover, internal business documents at Comcast indicate switching to DSL (16% of disconnects switched to a DSL provider in the first quarter of 2014). Israel Reply Decl. ¶ 81.

[48] *See* FCC Opposition and Response at 20-22, 122-128. Indeed, in response to Netflix's disparaging remarks about DSL in its FCC advocacy, networking and communications equipment manufacturer ADTRAN, Inc. filed a submission with the FCC noting that "DSL technologies have continued to evolve, and currently are able to support robust high-speed services, including HD video streaming." Reply Comments of ADTRAN, Inc., at 3, MB Docket No. 14-57 (Nov. 7, 2014). As ADTRAN explained, "the evolution of DSL technologies allows service providers to significantly exceed" the speeds that Netflix claims are required even for streaming of Ultra 4K HD video, demonstrating that DSL providers are "capable of serving as suitable alternatives that meet the Netflix recommendations for streaming services." *Id.* at 5-6.

within DSL's capability.[49] Further, DSL is not a static technology. Continuing investments in DSL technology – including fiber-to-the-node, IP-DSLAM, VDSL2, and pair bonding – have allowed upgraded DSL to compete effectively against cable broadband.[50] Indeed, the growth rate in DSL subscribership exceeded the growth rate in cable subscribership between June 2009 and June 2013 (30.7% for DSL versus 17.9% for cable). At 10 Mbps, the difference in annual growth rates is even more pronounced: 150.6% for DSL versus 52.8% for cable.[51]

Moreover, many consumers today are using wireless broadband service as at least a partial substitute for fixed broadband service, including for high-bandwidth activities like watching video – allowing them to downgrade from or forego upgrading to Comcast's higher broadband tiers, or to even cut the cord and rely on wireless instead.[52] Indeed, the GSG survey found that 41% of subscribers to non-DSL fixed broadband use wireless or mobile broadband either as frequently as or more frequently than they use fixed broadband for high-bandwidth activities. These results confirm that a significant share of broadband consumers already view wireless to be a satisfactory alternative to fixed broadband services. With advances in wireless technologies (such as LTE) and greater bandwidth flexibility,[53] as well as OVDs' efforts and

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[49] *See* Streaming Issues With Hulu Plus on Your TV, Help Center, Hulu, http://www hulu.com/help/articles/20196801 (last visited Nov. 3, 2014); System Requirements for Streaming on Your Computer, Help & Customer Service, Amazon, http://www.amazon.com/gp/help/customer/display html?nodeId=201422810 (last visited Nov. 3, 2014).

[50] *See* FCC Opposition and Response at 125-128; FCC Public Interest Statement at 47-50. As Professor Christopher Yoo demonstrates, a number of new and emerging technologies are "increasing the bandwidth that DSL can deliver." *Applications of Comcast Corp., Time Warner Cable Inc., Charter Communications, Inc., and SpinCo for Consent To Assign or Transfer Control of Licenses or Authorizations*, Comments of Christopher S. Yoo, at 9-12, MB Docket No. 14-57 (Aug. 25, 2014).

[51] Israel Reply Decl. ¶¶ 76, 80.

[52] *See* FCC Opposition and Response at 128-131; FCC Public Interest Statement at 51-56. As of June 2013, 100% of households are located in census tracts where at least two fixed or mobile providers offer 3 Mbps speeds (99% are located in census tracts with at least three), and this competitive landscape, including at higher broadband speeds, is growing: 98% of households are located in census tracts where at least two fixed or mobile providers reported offering at least 10 Mbps speeds (up from 22% in December 2009). Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, Internet Access Services: Status as of June 30, 2013, at 10 (June 2014), https://apps.fcc.gov/edocs public/attachmatch/DOC-327829A1.pdf; Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, Internet Access Services: Status as of December 31, 2009, at 8 (Dec. 2010), https://apps.fcc.gov/edocs public/attachmatch/DOC-303405A1.pdf.

Powerful industry players recognize the growing importance of streaming video over wireless (e.g., Verizon is poised to launch a new mobile-focused TV streaming video service by mid-2015). Ryan Knutson, *Verizon Eyes Digital Video Service by Mid-2015*, Wall St. J. (Sept. 14, 2014). Ericsson notes: "[v]ideo is the largest and fastest growing segment of mobile data traffic. It is expected to grow around 13 times by 2019, by which time it is forecasted to account for over 50 percent of all global mobile data traffic." Ericsson, *Ericsson Mobility Report: On the Pulse of the Networked Society* (June 2014), *available at* http://www.ericsson.com/res/docs/2014/ericsson-mobility-report-june-2014.pdf.

[53] New wireless technologies advance the wireless threat to wireline providers. For example, LTE multicast, based upon evolved Multimedia Broadcast Multicast Service (eMBMS), allows identical content to be sent to many customers at the same time, thus enhancing network efficiency and increasing effective network capacity. Verizon has called the advent of multicast "the pivotal point that starts to change the way content is

ability to make their product attractive for use on mobile devices through wireless technologies, these trends will only accelerate in the future.[54]

In short, customers have the option to switch. And many do – Comcast's average monthly churn is between **{{ }}**% (annual churn of about **{{ }}**). And in all events, switching is not the only option. If online video is a key interest of a broadband subscriber, and that service is no longer being well-supported by Comcast, a subscriber could downgrade to bare-bones Comcast broadband to support email and online banking, for example, rather than pay for service that does not even deliver the desired product. And customers interested in online video would certainly not pay to upgrade to a higher tier of service if it failed to deliver high-quality online video service. Any of these consumer responses – switching to another fixed broadband provider, shifting to a lower-speed tier, or cutting the fixed broadband cord altogether – to any effort by Comcast to degrade OVDs would inflict costly damage on Comcast's valuable broadband business (both financially and in brand reputation). This would be without any assurance that the small number of dissatisfied OVD users that might theoretically switch to MVPD usage would even switch to Comcast's video offering instead of to Comcast's many MVPD competitors (such as DBS and telcos, both of which have been aggressively taking subscriber share from cable operators over the last half decade).[55]

Third, as noted above, OVDs have also become significant purchasers of NBCUniversal content. In 2013 alone, OVDs accounted for nearly **{{ }}** in revenue for NBCUniversal – a figure that has grown more than fivefold since 2009.[56] This creates a significant and growing *disincentive* for Comcast to harm or degrade the performance or viability of OVDs. In fact, this is a disincentive that TWC's systems will *gain*, post-transaction. Thus, it would make little business sense for Comcast to harm its broadband offering to attempt to favor

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delivered over a mobile handset, which opens up content into the wireless world." Jeff Baumgartner, *Verizon CFO: LTE Multicast 'Pivotal' To Mobile Video*, Multichannel News (Aug. 12, 2014), http://www multichannel.com/news/technology/verizon-cfo-lte-multicast-pivotal-mobile-video/383137. AT&T and Verizon have announced plans to launch LTE multicast service in 2015. Phil Goldstein, *AT&T to Launch LTE Multicast in 2015*, FierceWireless (Aug. 13, 2014), http://www.fiercewireless.com/story/att-launch-lte-multicast-2015/2014-08-13. *See* COMC-NAT-00039811 (**{{ }}**). Verizon Wireless claims that 4G LTE service can be "comparable, if not faster, than a home connection" and is able to match the speed of most cable networks. *See* Verizon Wireless, *4G LTE Speeds vs. Your Home Network*, http://www.verizonwireless.com/insiders-guide/network-and-plans/4g-lte-speeds-compared-to-home-network/ (last visited Nov. 6, 2014).

[54] *See, e.g.*, COMC-AVC-00035712 (**{{ }}**). Netflix tells its investors that it is "pioneering the use of tablets and smartphones as second-screen choosing devices for TV viewing." Netflix, Inc., 10-K at 3 (Feb. 1, 2013), *available at* http://ir.netflix.com/secfiling.cfm?filingID=1065280-13-8. Netflix also adapts its product for lower data use, adjusting its service to "use 2/3 less data on average, with minimal impact to video quality." Netflix Lowers Data Usage by 2/3 for Members in Canada, Netflix US & Canada Blog (Mar. 28, 2011), http://blog netflix.com/2011/03/netflix-lowers-data-usage-by-23-for.html.

[55] *See supra* part A; B.1.

[56] *See* FCC RFI Response Exhibit 19.5(a).

its video service, and the proposed transaction reinforces this and even further reduces any purported incentive.[57]

3. No Increased Incentive to Raise OVDs' Costs Through Interconnection or Last-Mile Access

The Open Internet conditions – which uniquely bind Comcast and which, in their new iteration that the FCC is currently developing, will presumably be extended to all ISPs eventually – already prohibit blocking or degradation of lawful network traffic over Comcast's last-mile network. In the near term, even before new rules are adopted, the proposed transaction will extend those protections to the TWC (and Charter) systems acquired by Comcast, and thus directly address that risk of foreclosure.

For the reasons set forth below, the proposed transaction does nothing to increase Comcast's ability or incentive to engage in foreclosure strategies at the point of interconnection with Comcast's network. The size of Comcast's retail broadband "share" is irrelevant to the question of Comcast's incentive or ability to foreclose in the entirely separate market for interconnection. The available empirical evidence suggests that the number of retail subscribers served by an ISP is not a differentiating factor in interconnection pricing. Larger ISPs, like large firms in many other industries, tend to offer higher quality products – including, in particular, better backbone offerings. Many smaller ISPs have not invested in their own backbone facilities and thus either have more limited direct interconnection offerings (i.e., backbone facilities that only reach a few geographic points) or in fact pay third parties for transit service to reach the rest of the Internet.[58] In contrast, larger ISPs, like Comcast, have invested in substantial backbone networks and offer higher quality interconnection services.[59] As a result, larger ISPs may appear to charge more for interconnection at first glance – but they are in fact offering a higher quality product compared to smaller ISPs. Antitrust analysis is properly focused on *quality-adjusted* prices.[60]

It is no surprise that ISPs do not have bargaining leverage over interconnection because ISPs of any size have limited bargaining leverage over interconnection with their networks. As

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[57] As Professor Scott Hemphill testified in connection with the proposed transaction, "Online video is an important and increasing part of the value provided by broadband Internet. Harming a growing business to preserve a declining one is a costly and doubtful business strategy. That fact reduces the incentive to engage in foreclosure." Oversight Hearing on Competition in the Video and Broadband Markets: The Proposed Merger of Comcast and Time Warner Cable: Hearing Before the H. Comm. on the Judiciary, Subcommittee on Regulatory Reform, Commercial and Antitrust Law, 113th Cong. (May 8, 2014) (Testimony of C. Scott Hemphill, Columbia University, at 5) ("Hemphill Testimony"), *available at* http://judiciary.house.gov/_cache/files/14da5814-6ef9-4313-8ce7-ce81440a7198/hemphill-testimony.pdf.

[58] For a further discussion, see Comcast's response to Question No. 3 at 3-5.

[59] *See* Israel Reply Decl. ¶ 153.

[60] *See, e.g.*, Gregory Werden et al., *Merger Simulation*, *in* Econometrics: Legal, Practical, and Technical Issues 269 (2005).

is well known, Comcast has, and will continue to have post-transaction, more than 40 settlement-free peers[61] and numerous other commercial interconnection agreements that provide a large number of transit paths into its network. Across Comcast's interconnection partners, there is more than enough capacity into Comcast's network.[62] Thus, OVDs have many routes available to them to send traffic to Comcast without having to arrange any direct connection with Comcast themselves. Dr. Israel has explained that "the recognized intense competitiveness of backbone services places strong constraints on an ISP's ability to manipulate interconnection terms in a way that would harm edge providers, whatever the size of its last-mile network."[63]

Nor is there a compelling theory that the transaction would somehow enable Comcast to – for the first time – demand payment from its settlement-free peers. These links with its settlement-free peers are two-way, meaning Comcast relies on them to send data traffic out to the rest of the Internet as much as it does to receive traffic. It is dependent on these links for the interconnectivity it needs to serve its customers as a provider of Internet access services. There is no scenario in which large international telecom providers such as AT&T and Verizon would simply acquiesce to Comcast's demands based on the addition of the TWC subscribers.[64] And any dispute with such providers – as the Cogent dispute aptly demonstrates – would lead to congestion and customer disruption that would quickly spiral into customer loss and reputational harm if not resolved.

In short, Comcast could not effectively foreclose OVD access into its network or raise OVDs' transit costs without seriously interfering with the "ubiquitous" Internet connectivity that is essential to its broadband offering to consumers and businesses, as well as to its content delivery business.[65] And the cost of doing the latter is so high as to counterbalance any hypothetical incentive to harm OVD traffic. As industry experts observe, in the porous, interconnected, and highly redundant Internet ecosystem, no provider can effectively exercise a "monopoly" on terminating traffic to its network without undermining its own

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[61] Most of them do or could sell transit to Comcast's network.

[62] Comcast's settlement-free routes typically have almost **[[ ]]**% availability, as explained in a forthcoming analysis from Compass Lexecon. Accordingly, they can accommodate substantially more traffic destined for Comcast's network; congestion is not a common issue.

[63] Israel Reply Decl. ¶ 43.

[64] *See* Response to Question No. 3.

[65] *Applications filed by Global Crossing Ltd. and Level 3 Commc'ns, Inc. for Consent to Transfer Control*, Memorandum Opinion and Order and Declaratory Ruling, 26 FCC Rcd. 14056, 14068 ¶ 27 (2011) (noting that merged entity would "lack incentives to selectively de-peer or degrade its connections for anticompetitive reasons" because if it did so, it "would lose customers to its remaining peers, because those entities would still enjoy ubiquitous Internet connectivity and, hence, would be more attractive to customers").

interconnectivity.[66] For all of the reasons provided above, "[p]aid peering is an ineffective tool of foreclosure," as Professor Scott Hemphill has testified.[67]

Perhaps most importantly, as Dr. Carlton establishes, the terms of Comcast's interconnection agreements "are inconsistent with claims that Comcast is exercising substantial bargaining power over edge providers or trying to harm their business prospects."[68] The fact that Comcast's rates (per Mbps) for direct on-net and off-net transit have continued to decline over time, with rates for many counterparties well below third-party transit prices is powerful evidence that Comcast lacks substantial bargaining power in interconnection negotiations. Netflix, for example, pays **{{ }}**,[69] and **{{ }}**.[70] Moreover, counterparties typically **{{ }}**. And edge providers with sufficient traffic and their own CDN may find it more efficient to arrange for direct interconnection with Comcast, cutting out the "middlemen" and their associated fees and actually reducing their interconnection costs.[71]

The fact that edge providers, including OVDs, pay for interconnection is not in itself problematic, nor does it reflect any anticompetitive raising of rivals' costs. Peering has existed for decades and has always involved a reciprocal exchange of value, and edge providers – that make little or no investment in network facilities that make up the Internet and that provide no reciprocal carriage for an ISP's traffic – have long paid for transit and interconnection. As Professor Hemphill notes, "Paid peering is best seen not as an instrument of exclusion, but as a means to put a price on the additional capacity demands resulting from the increased popularity of online video. It is efficient for the distributor and its end users, considered collectively, to pay for that capacity, rather than spreading the expense among all ISP customers. Doing so better aligns use with cost and incentivizes both investment and economical use."[72]

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[66] *See* Dovrolis Decl. at 5 ("Access providers cannot demand direct interconnection arrangements (or payments) from the various content providers, CDNs, and other networks that send them traffic. Those providers always have the option of sending their traffic to an access provider by using the various indirect transit providers that provide the core interconnectivity of the Internet; no access provider can fulfill its role reliably and efficiently without being densely interconnected with several transit providers."); *see also* Hemphill Testimony at 5 (noting that "an ISP is unable to degrade online video delivered in this fashion without also degrading other traffic delivered by the middleman").

[67] Hemphill Testimony at 5.

[68] Carlton Decl. ¶ 14.

[69] Israel Reply Decl. ¶ 243.

[70] **{{ }}**. See COMC-COM-00000341 (**{{ }}**).

[71] Israel Reply Decl. ¶¶ 173-75.

[72] Hemphill Testimony at 6; *see also* Dovrolis Decl. at 20, 24.

Economic evidence of Comcast's and TWC's rates and terms for direct interconnection are inconsistent with any incentive to foreclose OVDs or raise their costs: in fact, Comcast and TWC have incentivized OVDs to deliver traffic to their networks through **{{ }}**.[73] Dr. Israel's analysis of Comcast and TWC data establishes that **{{ }}**.[74] Interconnection marginal prices (price per Mbps per month for marginal traffic) and average prices (price per Mbps per month) charged by Comcast and TWC **{{ }}**.[75] This is exactly the *opposite* of what one would expect if Comcast or TWC had any incentive to harm OVDs to favor their video businesses. Instead, such evidence is consistent with the overall principle that Comcast and TWC would not risk their broadband business in the hope of any uncertain gains in traditional video, given the array of potent responses by subscribers, ISP competitors, and OVDs – refuting a necessary finding for any transaction-specific incentive to be attributed to Comcast. Further, long-term agreements **{{ }}** substantially reduce any incentive to harm *other* OVDs, because now the benefits of doing so must be shared with those already protected by contract.[76]

In sum, given the business realities, there is no plausible reason to conclude that the transaction would increase Comcast's purported incentive to harm OVDs by blocking or degrading access to online video content.

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[73] *See* Israel Reply Decl. ¶¶ 118-21, 174. The "paid peering" terms for OVDs **{{ }}**. For example, **{{ }}**.

[74] *Id.*

[75] *Id.* ¶ 121.

[76] *See* Carlton Decl. ¶¶ 14-15.

<u>Question No. 2</u>

How do you respond to claims that Comcast's larger subscriber base will give it increased bargaining leverage vis a vis programmers? If Comcast does gain greater leverage, does this raise concerns that the Commission needs to address?

<u>Response to Question No. 2</u>

The evidence is mixed on whether and to what extent larger cable companies are able to secure better rates or terms than smaller cable companies. Comcast believes that any differences that may have historically existed are tending to diminish over time, as programmers increasingly seek to make rates more uniform. Comcast addresses this issue below in more detail. But at the outset, we note that there is no need to resolve these questions in order to conclude that the proposed transaction is procompetitive and in the public interest:

1. Even if larger MVPDs sometimes receive better pricing, there is no reason to think that the proposed transaction will *incrementally* increase Comcast's buying power. Comcast is already the largest MVPD in the country, and its internal documents confirm that obtaining improvements in programming rates was not a driving factor of the deal, although other significant efficiencies it expected to achieve were important. To the contrary, expected programming cost savings are relatively small (less than **{{ }}**% of the combined companies' programming expenditures).

2. If the transaction did provide some marginal improvement in Comcast's programming costs, that would *benefit* consumers. Programming is typically sold on a per-subscriber basis, making it a marginal cost. It is well-settled that reductions in marginal costs provide procompetitive benefits. Economic literature and simple logic confirm that if Comcast pays less for programming, its subscribers will benefit, especially given the highly competitive MVPD market.

3. Programmers have substantial bargaining leverage with MVPDs and there is no reason to expect the transaction to change that. Indeed, leading programmers like Fox and CBS have confirmed in public statements that they see no threat from the transaction. To the extent that some programmers have taken a different view in private, their motives should be examined carefully and their views greeted with skepticism. Programmers have been very successful in driving up the price of their products at a rate well above general inflation; they have an incentive to ensure that this continues. Indeed, programming rate increases have significantly outstripped cable retail rate increases.

4. To the extent that this question focuses on non-price terms (like MFN and ADM provisions), we have explained in response to Questions #1 and #5 that: (1) there is no evidence suggesting that greater size will result in Comcast seeking or obtaining more onerous versions of these clauses; (2) these provisions (particularly MFNs, but also narrowly tailored ADMs) can be procompetitive and beneficial to consumers;

and (3) Comcast is *uniquely constrained* (by the DOJ Consent Decree and FCC order in NBCUniversal) in its ability to seek these provisions compared to other MVPDs.

At the end of the day, the relevant question is not whether large MVPDs tend to have better deals than small MVPDs, but rather whether Comcast would be able to negotiate even better deals if it combined with Time Warner Cable and, if so, whether that would harm consumers. There is no evidence supporting either point. And even if Comcast would be able to negotiate better agreements, that would benefit rather than harm consumers. Any incremental reduction in Comcast's programming costs as a result of this transaction should translate into reduced prices for its subscribers. Conversely, any increased bargaining power for programmers would likely result in higher prices for consumers.

A. Claims of Buyer Power and Bottlenecks in Video Programming Have Been Raised and Refuted Multiple Times

At the outset, it is important to emphasize that the D.C. Circuit, the FCC, and the antitrust authorities have all examined the issue of buyer power in video programming distribution several times before and reached the same conclusion: that greater post-transaction share (at least in the range contemplated in the current transaction) will not give rise to competition concerns.

The D.C. Circuit has twice concluded – in eras when there was far *less* competition among MVPDs (and online video distribution had yet to emerge) – that there is no basis to find that a single cable operator at Comcast's post-transaction subscriber level presents any competitive threat to programmers.[1] As the D.C. Circuit found in 2009:

> [T]he record is replete with evidence of ever increasing competition among video providers. . . . Cable operators, therefore, no longer have the bottleneck power over programming that concerned the Congress in 1992. . . . In light of the changed marketplace, the Government's justification for the 30% cap is even weaker now than in 2001 when we held the 30% cap unconstitutional.[2]

Since then, DBS providers have continued to grow and telcos have successfully entered and expanded into the video marketplace to become very significant players. Moreover, OVDs – which barely existed at the time – have emerged as meaningful outlets for video programming. Netflix alone, for example, already has substantially more subscribers than Comcast will have post-transaction.

In fact, the proposed transaction merely returns Comcast to about the same share of nationwide MVPD subscribers that it had after its acquisition of AT&T Broadband in 2002 and its acquisition of certain cable systems from Adelphia and Time Warner Cable in 2006. In both

[1] *See Comcast Corp. v. FCC*, 579 F.3d 1, 8 (D.C. Cir. 2009); *see also Time Warner Entm't Co. v. FCC*, 240 F.3d 1126, 1136 (D.C. Cir. 2001).

[2] *See Comcast Corp. v. FCC*, 579 F.3d at 8-9 (D.C. Cir. 2009).

of those prior transactions, programmers and other parties raised the same claims concerning Comcast's bargaining power vis-à-vis video programmers and bottleneck control over video programming.[3] And in both cases, again at a time when the MVPD market was considerably less competitive than it is today, the FCC and the relevant antitrust authorities approved the transactions without conditions relating to program buying.[4]

Moreover, the marketplace evidence since those transactions makes clear that neither transaction resulted in any adverse effect on output or pricing in the video programming market. To the contrary, the number of channels has increased significantly.[5] Between 1993 and 2013, the number of national programming networks increased more than fourfold. At the same time, programmers have been more than able to extract higher prices for their programming, at rates well in excess of cable rate increases and inflation. Comcast, for example, has seen its programming costs increase 10% on average annually over the last decade.[6]

Further, contrary to theoretical monopsony claims, Drs. Rosston and Topper conclusively demonstrate that – far from reducing output – Comcast actually carries more unaffiliated and independent programming networks than do TWC and other cable companies.[7]

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[3] *See, e.g.*, Applications of Adelphia Communications Corporation (and Subsidiaries, Debtors-In-Possession), Assignors, to Time Warner Cable Inc. (Subsidiaries), Assignees, Adelphia Communications Corporation, (and Subsidiaries, Debtors-In-Possession), Assignors and Transferors, to Comcast Corporation (Subsidiaries), Assignees and Transferees, 21 FCC Rcd. 8203, 8250-52 ¶¶ 100-103 (2006) ("Adelphia Order").

[4] *See id.*, at 8253; *See also* Statement of Chairman Majoras, Commissioner Kovacic, and Commissioner Rosch Concerning the Closing of the Investigation Into Transactions Involving Comcast, Time Warner Cable, and Adelphia Communications, File No. 051-0151 (Jan. 31, 2006), at 1, *available at* http://www ftc.gov/system/files/documents/public_statements/417991/0510151twadelphiamajoras_kovacic_rosch.pdf ("The evidence obtained during the investigation does not suggest that the proposed transactions are likely to substantially lessen competition in any geographic region in the United States.").

[5] *Compare Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, First Report, 9 FCC Rcd. 7442 ¶ 21 & App. C, tbl. 4 (1994), *with Annual Assessment for the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 12-203, Fifteenth Report, 28 FCC Rcd. 10496 (2013), *available at* http://www.fcc.gov/document/fcc-adopts-15th-report-video-competition-0. As FCC Commissioner Ajit Pai stated in connection with the Fifteenth FCC Video Competition Report, "Today, more Americans have more choices when it comes to video programming than ever before. They can watch a greater variety of programming than ever before. They can view that programming on a wider array of devices than ever before. And they have a greater ability than ever before to watch that programming when they want to watch it." (Statement of Comm'r Ajit Pai).

[6] Based on the cumulative changes in programming costs reported in Comcast's and TWC's annual public filings and the average expanded basic cable price in the FCC's *Report on Cable Industry Prices* from 2004 to 2012. *See Statistical Report on Average Rates for Basic Service, Cable Programming Service, and Equipment*, Report on Cable Industry Prices, 28 FCC Rcd. 9857 (2013).

[7] *See* Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, Exhibit 2, Reply Declaration of Gregory L. Rosston and Michael D. Topper ¶¶ 85-86 & tbl. III.B.1, MB Docket No. 14-57 (Sept. 23, 2014) ("Rosston/Topper Reply Decl."); *see also* Letter from Francis M. Buono, Willkie Farr & Gallagher LLP, counsel for Comcast Corp., to Marlene H. Dortch, Federal Communications Commission (Oct. 17, 2014) (subject to Modified Joint Protective Order in MB Docket 14-57), at 1-2 & App. A.

B. <u>The Transaction Will Not Result in More Bargaining Power for the Combined Entity</u>

Comcast and TWC do not compete for a single subscriber, nor do they compete in the purchase of video programming, and therefore there will be no reduction in competition as a result of the transaction. Any argument of greater bargaining power would therefore need to be derived from Comcast's increased size alone. But there is no support in economic theory for the idea that an MVPD's increase in size alone should necessarily result in greater leverage. Moreover, developments in the marketplace make clear that video programmers have substantial bargaining leverage of their own.

1. Programmers Have Substantial Bargaining Power and Acknowledge That the Deal Will Not Harm Them

Programmers have had substantial bargaining power for some time, even before the advent of widespread Internet distribution of video programming. Programmers have been able to negotiate significant increases in programming rates, as reflected in the increase in Comcast's programming costs of more than 120% over the past ten years, well in excess of cable rate increases and the rate of inflation during this time.[8] Recent programming negotiations involving CBS and Time Warner Cable, Fox and Cablevision, and Disney and Dish have demonstrated fairly clearly that programmers typically have the upper hand in negotiations.[9]

Programmers do not expect this to change as a result of the transaction. To the contrary, programmers are on the record confirming that the deal will not affect them adversely. For example, when addressing the topic of MVPD consolidation earlier this year, Chase Carey, President of 21st Century Fox, stated:

> We honestly don't see any material consequences to our business. In fact, there may be some positive ones. First, unique content at scale in an expanding digital

[8] *See* Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, at 159 & n.493, MB Docket No. 14-57 (Sept. 23, 2014).

[9] *See, e.g.*, Alex Sherman, *Dish Extends Disney Deadline to Avoid ESPN, ABC Blackout*, Bloomberg (Oct. 1, 2013), *available at* http://www.bloomberg.com/news/2013-10-01/dish-reaches-extension-with-disney-avoiding-espn-abc-blackout.html; Bill Carter, *CBS Returns, Triumphant, to Cable Box*, N.Y. Times (Sept. 2, 2013), *available at* http://www nytimes.com/2013/09/03/business/media/cbs-and-time-warner-cable-end-contract-dispute html ("The outcome underscored the leverage that the owners of important television content . . . retain over distributors like cable systems . . . Mr. Bank said that, if anything, the deal may make it easier for networks to press cable and other distributors like satellite systems to squeeze out more favorable fees."); David Lieberman, *NO DEAL! CBS And Showtime Go Dark on Time Warner Cable*, Deadline (Aug. 2, 2013), *available at* http://deadline.com/2013/08/no-deal-cbs-goes-dark-on-time-warner-cable-555649/ ("TWC says 'CBS has refused to have a productive discussion. It's become clear that no matter how much time we give them, they're not willing to come to reasonable terms.'"); Brian Stelter and Bill Carter, *Fox-Cablevision Dispute May Obstruct Customers' View of World Series*, N.Y. Times (Oct. 24, 2010), *available at* http://www nytimes.com/2010/10/25/business/media/25cable html ("Cablevision . . . blamed News Corporation for trying to 'extort unreasonable and unfair fee increases.'").

> world has never held a stronger hand. . . . Furthermore, the real issue is how many choices an individual home has, not how big is the distributor.[10]

And Les Moonves, President and CEO of CBS, recently affirmed a bullish view of programmers' bargaining position:

> Nobody can exist without the CBS content on their air. Yes, Comcast is going to get bigger. AT&T is going to get bigger. We're going to have to negotiate with both of them. They can't live without our content.[11]

And this was before CBS's recent launch of an online subscription service. Thus, it is simply not the case that programmers will be less able to resist unfavorable terms as a result of this transaction because the distribution they can otherwise achieve is a weaker substitute.

2. The Transaction Results in No Reduction in Competition

The programmers' sentiments are not surprising. Comcast and TWC do not overlap in their service territories, so the proposed transaction will not affect the competitive choices available to MVPD customers at all. The transaction does not change Comcast's incentives or next-best alternative to carrying a content provider's programming – Comcast will face the same risk post-transaction of losing subscribers to competitors if it does not carry the programming as it does today. Nor do Comcast and TWC compete in purchasing video programming.[12] Comcast is aware of no theory of bargaining and leverage that would suggest that a merger of non-overlapping buyers will necessarily result in the combined entity facing less economic pressure, or suppliers acceding to worse terms.

Such a theory might make sense if Comcast and TWC were actual rivals in the retail market. In that scenario, combining the two firms could increase the combined firm's bargaining leverage vis-à-vis programmers because programmers that could previously play one firm against the other to reach the same end user no longer have that option. Of course, Comcast and TWC are not rivals in the retail video business, and programmers have never been in a position to use the existence of TWC as a bargaining tool against Comcast.[13] For this reason, among

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[10] *See* Twenty-First Century Fox, Q2 2014 Results, Earnings Call Transcript (Feb. 6, 2014), *available at* http://finance.yahoo.com/news/twenty-first-century-fox-management-192009429.html.

[11] *See* Interview with Les Moonves, CBS Corporation President & CEO, CNBC's "Closing Bell" (Sept. 10, 2014), *available at* http://www.cnbc.com/id/101989964#.

[12] *See* Applications and Public Interest Statement of Comcast Corporation and Time Warner Cable Inc., Exhibit 5, Declaration of Gregory L. Rosston and Michael D. Topper ¶ 177, MB Docket No. 14-57 (Apr. 8, 2014) ("Rosston/Topper Decl.").

[13] *See* Rosston/Topper Reply Decl. ¶ 52; *see also* U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines (2010) § 12 ("[T]he merger of *competing* buyers is likely to lessen competition in a manner harmful to sellers.") (emphasis added)).

others, Comcast does not project more than a minimal reduction in programming costs as a result of the proposed transaction, and none from any supposed increase in bargaining power.[14]

3. There Is No Evidence That an Increase in Size Will Result in a Bottleneck over Video Programming

Nor does Comcast accept the view that an increase in the number of video subscribers it serves will increase its bargaining power against programmers. As previously noted, there have been no conclusive findings in the economic literature that an increase in the size of an MVPD results in greater bargaining leverage.[15] The implicit assumption in such reasoning is that, if a programmer cannot reach an agreement with a large MVPD, the alternative is worse than if a programmer cannot reach an agreement with a small MVPD. But while it is true that a programmer has more at stake when negotiating with a larger MVPD, the stakes are higher for the MVPD as well.[16] Following the merger, Comcast will suffer the sum of losses that Comcast and TWC would have suffered independently if the two did not carry particular programming pre-merger.

Further, standard theories of buyer power are not supported by the realities in this marketplace. The transaction will result in no change in the demand for, or supply of, programming. Demand for programming is driven by the need to compete for and retain subscribers. Because TWC and Comcast do not compete for subscribers today, post-transaction Comcast will continue to face exactly the same competitive pressures from other MVPDs as it does today. At the same time, there should be no change in the supply of video programming because the marginal cost of selling an incremental unit of video programming is essentially zero. Comcast does not "consume" a unit of video programming that TWC cannot then acquire, i.e., video programming is non-rivalrous. This is different from the traditional monopsony context where one party's acquisition of a tangible product deprives another party of that same product.[17] Put another way, monopsony assumes an upward-sloping supply curve. But the supply curve for video programming is flat because the marginal cost of distributing video programming to incremental subscribers is essentially zero.[18]

Nor will Comcast have any bottleneck over video programming. As noted, post-transaction, Comcast will account for fewer than 30% of MVPD subscribers (the same position it was in following the Adelphia and AT&T Broadband acquisitions), leaving an open field of

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[14] *See* Rosston/Topper Reply Decl. ¶ 55; *See also* Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, Exhibit 1, Reply Declaration of Mark A. Israel ¶ 158, MB Docket No. 14-57 (Sept. 23, 2014) ("Israel Reply Decl.").

[15] *See* Rosston/Topper Reply Decl. ¶ 56.

[16] Rosston/Topper Decl. ¶¶ 190-92; Rosston/Topper Reply Decl. ¶ 53.

[17] Rosston/Topper Reply Decl. ¶ 51.

[18] *Id.*

more than 70% of the MVPD marketplace to programmers. The D.C. Circuit already concluded in 2009 that there was no justification for a 30% cap on cable operators, or anything close to it.[19]

Such a conclusion is even more compelling today with the growth of telco providers and online video distribution. In fact, recent decisions by major programmers to distribute their content over the Internet make clear that programmers have never had more avenues to reach consumers than they do today. For example, last month, HBO announced its intention to launch a standalone Internet streaming service in 2015.[20] CBS also recently launched an online subscription video service called "CBS All Access" that includes current and classic programming, as well as a live stream of its broadcast network.[21] When programmers do not need MVPDs as an outlet to reach consumers, serving less than 30% of national MVPD subscribers becomes increasingly irrelevant as a source of bargaining leverage.

C. <u>Any Incremental Reduction in Programming Costs Will Benefit Consumers</u>

Any incremental cost savings that Comcast may realize does not reflect any anticompetitive issue. There may be several reasons why some programmers are willing to give large MVPDs better rates or non-economic terms than small MVPDs that are entirely unrelated to any supposed added bargaining leverage. For example, negotiations with large MVPDs may reduce the uncertainty and transaction costs for a programmer. Large MVPDs like Comcast may also offer better technology, such as robust TVE offerings and apps, an advanced user interface, interactive and addressable advertising capabilities (including on VOD), and other features, allowing a programmer to better monetize its content.

In any event, Comcast's internal projections do not assume any significant programming-related benefit resulting from its increased size and its allegedly increased bargaining leverage. Instead, Comcast projected a relatively small benefit from the assumption of TWC subscribers under Comcast's contracts and pricing – ultimately resulting in a **{{ }}** per subscriber per month.[22] **{{**

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Nevertheless, to the extent that the transaction helps moderate the rate of programming cost increases, that will benefit consumers. Standard economics implies that reductions in

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[19] *See Comcast Corp. v. FCC*, 579 F.3d 1, 9 (D.C. Cir. 2009).

[20] *See* Emily Steel, *HBO Plans New Streaming Service, With Eye on Cord Cutters*, N.Y. Times (Oct. 15, 2014), *available at* http://www nytimes.com/2014/10/16/business/media/time-warner-chief-to-brief-investors-on-plans-for-growth html.

[21] *See* Joe Flint, *CBS Launches Online Subscription Video Service*, Wall St. J. (Oct. 16, 2014), *available at* http://online.wsj.com/articles/cbs-launches-online-subscription-video-service-1413465013.

[22] These savings represent less than **{{ }}**% of the combined company's programming costs and **{{ }}**% of total programming revenues. *See* Rosston/Topper Reply Decl. ¶ 55 & n. 86; Israel Reply Decl. ¶ 158.

marginal costs such as programming costs will be passed on to consumers fully or partially.[23] Thus, in the event that the proposed transaction leads to a material dent in the pace of increase of Comcast's programming costs, slowing or moderating the pace of increase of Comcast's retail pricing would be an unequivocal consumer benefit.[24]

[23] *See AT&T Inc. and Centennial*, Memorandum and Order, 24 FCC Rcd. 13915, 13954 (Nov. 5, 2009); Rosston/Topper Reply Decl. ¶ 70. Empirical evidence supports this claim. One study found a pass-through rate of around 50% for cable MVPDs at a time when they faced less competition. *See* George S. Ford and John D. Jackson, "Horizontal Concentration and Vertical Integration in the Cable Television Industry," Review of Industrial Organization, 12.4: 501-18 (1997). Moreover, Drs. Rosston and Topper have found a very high correlation between Comcast's changes in programming cost and changes in ARPU for video customers from 2004 to 2013, and using a log regression, estimated that a **{{ }}**% change in programming cost was associated with a **{{ }}**% change (in the same direction) in ARPU. In other words, the data do suggest that a reduction in costs (or a reduced rate of increase in costs) should lead to a reduction in ARPU.

[24] For this reason, claims regarding increased buyer power have gained little traction, including recently when the FTC closed its investigation of the proposed merger of Publicis and Omnicom (which would have given the combined entity substantial market power for media buying), without even issuing a second request.

<u>Question No. 3</u>

How do you respond to claims that Comcast's larger subscriber base will give it increased bargaining leverage vis a vis CDNs, OVDs, and other edge providers? If Comcast does gain greater leverage, does this raise concerns that the Commission needs to address?

<u>Response to Question No. 3</u>

Comcast incorporates its response to Question No. 1, which discusses many related issues.

The transaction will not increase Comcast's bargaining leverage over edge providers and poses no risk of harming consumers' ability to access online content for several reasons:

1. The retail broadband market is separate and distinct from the market for transit. The fact that Comcast will serve additional subscribers in some local broadband markets – a market in which Comcast and TWC are not competitors – does not change the competitive landscape in the separate market for transit. That market is highly dynamic and competitive (as the FCC recognized in approving the Global Crossing/Level 3 merger). Nothing in this deal changes that.

2. Relatedly, there is no economic theory to support the notion that a larger retail broadband footprint should necessarily affect Comcast's bargaining leverage with edge providers (or their agents, CDNs and other transit providers) in the separate and distinct market for transit and interconnection. And, in fact, real-world evidence does not support the conclusion that larger ISPs charge more for interconnection services than smaller ISPs once one accounts for the quality of an ISP's network.

3. Comcast's bigger size would not as a practical matter change its bargaining leverage because – regardless of how many subscribers Comcast serves on the last mile – edge providers do not need to deal directly with Comcast to reach Comcast Internet subscribers. The claims by certain parties that Comcast is a "terminating access monopoly" is a mistaken analogy to legacy phone networks. In the Internet backbone market, a myriad of transit providers, as well as multiple CDNs, supply edge providers with a host of indirect ways to access Comcast's subscribers without needing any direct agreement with Comcast. In fact, the vast majority of edge providers do not have such a direct relationship but instead use a variety of intermediaries and have the ability to switch between them.

4. The Netflix dispute does not suggest anything to the contrary. In fact, it persuasively shows that Comcast has *not* used bargaining leverage to harm edge providers. As explained below, Comcast subscribers enjoyed high performance using Netflix until Netflix unilaterally decided to degrade that performance in a transparent effort to force Comcast to provide Netflix with free interconnection services. Netflix and Comcast have since entered into an **{{** **}}** direct interconnection agreement that provides Netflix with **{{** **}}**. The pricing terms of the agreement are exactly the opposite of what one would expect

if Comcast were attempting to exercise substantial bargaining power vis-à-vis Netflix. Netflix's own CEO, Reed Hastings, called the agreement "affordable" for Netflix and said it "works great for consumers." He also described the amount of interconnection payments under the deal as "tiny."

5. There is no basis for inferring that a theoretical increase in Comcast's bargaining leverage vis-à-vis edge providers or their agents (CDNs and other transit providers) would cause any reductions in consumer welfare. A mere shift in bargaining leverage is not necessarily a competition concern in general and very likely poses no welfare concerns (and may even be welfare-enhancing) given the "seesaw" principle of two-sided markets like this one, the likely reduction in cross-subsidization, and the movement of prices toward marginal costs. Moreover, the total costs of paid interconnection are de minimis and are not capable of causing harm to edge providers, as Netflix itself has publicly acknowledged.

6. Comcast and TWC face substantial and growing competition in the retail broadband market. The stories told by deal opponents concerning increased leverage of the combined company vis-à-vis edge providers based on its increased total number of "eyeballs" all are enhanced by the false premise that Comcast and TWC lack competition in the Internet access market today. The empirical facts refute that premise – there is significant broadband competition today and the market is becoming more competitive. And this transaction will not reduce any such competition in any relevant market. Competitive pressures from other "last mile" ISPs, which will be unchanged as a result of this transaction, constrain any ability to disadvantage edge providers. Any effort by Comcast to disadvantage OVDs by increasing prices for interconnection would drive subscribers to Comcast's competitors.

A. The Backbone Market Is Distinct from the Retail Broadband Market

Comcast and TWC both offer retail broadband services, but in distinct local markets. They are not competitors in any sense of the word and the merger will not eliminate any competition or consumer choice. The fact that Comcast will gain retail broadband subscribers as a result of the transaction does not affect the competitive landscape in the *separate* market for backbone services.[1] As the FCC has found, that market is dynamic and highly competitive.[2] Nothing about this transaction will change that. And, as described in part C below,

[1] Dr. Dennis Carlton explained this in his FCC declaration. Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, Exhibit 3, Declaration of Dennis W. Carlton ¶ 9 n.15, MB Docket No. 14-57 (Sept. 23, 2014) ("Carlton Decl.") (stating "broadband services to consumers . . . are in a separate market from transit or backbone services" and observing no suggestion that the transaction will have "anything but a minimal impact on the competitiveness of this separate market").

[2] *See, e.g., Applications filed by Global Crossing Limited and Level 3 Communications, Inc. for Consent to Transfer Control,* Memorandum Opinion and Order and Declaratory Ruling, 26 FCC Rcd. 14056 ¶ 27 (2011) ("*Level 3-Global Crossing Order*") (finding "as many as 38 providers that sell transit or offer peering on a nationwide basis").

the competition in the backbone services market constrains Comcast's ability to manipulate interconnection terms in a way that would harm edge providers or their agents (CDNs and other transit providers), regardless of the size of its retail broadband footprint.[3]

B. Empirical Evidence Refutes the "Bargaining Leverage" Theory

Despite the foregoing, some have suggested that Comcast will gain bargaining leverage in negotiations over interconnection as a result of growth in the number of retail broadband subscribers. Bargaining leverage concerns may arise in mergers of companies that offer substitute products to the same groups of consumers.[4] Thus, in theory, a merger of ISPs may increase bargaining leverage vis-à-vis an edge provider where the merging parties were formerly horizontal substitutes to reach the same customers.[5] But the Comcast-TWC transaction plainly does *not* involve such a merger of rivals.[6]

Thus, as Dr. Carlton explains, the predictions of economic theory regarding whether "the merged entity will be able to negotiate better terms because of its increased size . . . are ambiguous."[7] Rather, there are unique, fact-specific circumstances in which a merger between non-competitors may affect bargaining power – and those effects may go in either direction.[8]

Here, the available empirical evidence suggests that the number of retail subscribers served by an ISP *is not* a differentiating factor in interconnection pricing, which in turn suggests that larger size alone does not lead to more bargaining leverage. Larger ISPs, like large firms in

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[3] Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, Exhibit 1, Reply Declaration of Mark A. Israel ¶ 43, MB Docket No. 14-57 (Sept. 23, 2014) ("Israel Reply Decl.").

[4] U.S. Department of Justice & Federal Trade Commission, *Horizontal Merger Guidelines* § 12 (2010) ("Mergers of *competing* buyers can enhance market power on the buying side of the market.") (emphasis added); *see* Applications and Public Interest Statement of Comcast Corporation and Time Warner Cable Inc., Exhibit 6, Declaration of Mark A. Israel ¶ 96, MB Docket No. 14-57 (Apr. 8, 2014) ("Israel Decl.").

[5] *See* Israel Decl. ¶¶ 96-97.

[6] *Id.* ¶ 97. As discussed further below, however, ISPs would have little if any practical ability to exert bargaining leverage over content providers due to the nature of the Internet.

[7] Dr. Carlton notes that Netflix's economist, Dr. Evans, and Cogent's economist, Dr. Farrell, all agree on this point as well. Carlton Decl. ¶ 13; *see also* Israel Decl. ¶ 101. Dr. Israel identifies the following examples of economic literature on size and bargaining power: Tasneem Chipty & Christopher M. Snyder, *The Role of Firm Size in Bilateral Bargaining: A Study of the Cable Television Industry*, 81 Rev. of Econ. & Stat. 326-340 (1999); Alexander Raskovich, *Pivotal Buyers and Bargaining Position*, 51 J. Indus. Econ. 405-426 (2003); Nodir Adilov & Peter J. Alexander, *Horizontal Merger: Pivotal Buyers and Bargaining Power*, 91 Econ. Letters 307-311 (2006).

[8] For example, if a buyer becomes so large that it can influence sellers' production decisions (a "pivotal buyer") it may *lose* bargaining power because negotiating too low a price could cause the seller to cut back on supply over time and eliminate mutually beneficial trades that would have occurred otherwise. Smaller, non-pivotal buyers can negotiate free from the risk of affecting the seller's production decisions. *See* Israel Decl. ¶ 101 (describing the Raskovich (2003) pivotal buyer model).

many other industries, tend to offer higher-quality products – including, in particular, better backbone offerings. The quality of a network is determined by numerous factors, such as size, geographic scope, capacity, traffic volume and significance, and number of interconnection points.[9] Many smaller ISPs have not invested in their own backbone facilities and thus either have more limited direct interconnection offerings (i.e., backbone facilities that only reach a few geographic points) or in fact *pay* third parties for transit service to reach the rest of the Internet.[10] In contrast, larger ISPs, like Comcast, have invested in substantial backbone networks with high quality networks and offer higher-quality interconnection services.[11] As a result, larger ISPs may *appear* to charge more for interconnection at first glance – but they are in fact offering a higher-quality product compared to smaller ISPs. Competition analysis is properly focused on *quality-adjusted* prices.[12]

Dr. Israel illustrates this point through empirical evidence. Using Cogent's own data in its FCC submission, Dr. Israel conducted a regression analysis of interconnection prices to determine whether price differences were explained by the size of an ISP's subscriber base or other factors reflecting the quality of its network.[13] The results of Dr. Israel's analysis demonstrate that once quality differences (the number of interconnection points) are controlled for, "an ISP's size (measured as its number of broadband customers) has no significant effect on interconnection prices."[14]

A comparison of CenturyLink and Charter illustrates the conclusion that size of the subscriber base is not what determines price. Both serve a similar number of retail broadband

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[9] *See Applications of Comcast Corp., Time Warner Cable Inc., Charter Communications, Inc., and SpinCo for Consent to Assign or Transfer Control of Licenses or Authorizations*, Cogent Communications Group, Inc. ("Cogent") Petition to Deny, Declaration of Hank Kilmer ¶¶ 14, 16, MB Docket No. 14-57 (Aug. 25, 2014) (describing Cogent's criteria for selecting settlement-free interconnection peers).

[10] Indeed, the presence or absence of substantial backbone facilities – not the number of "eyeballs" served – is very often the critical factor determining whether an ISP charges an edge provider for interconnection or not. Since ISPs without backbone facilities *pay* for transit to the rest of the Internet, they are often happy to enter into a *free* arrangement with an edge provider, for whose traffic they would otherwise be charged by their transit provider. Edge providers do not have this same leverage when negotiating with an ISP that has its own backbone network and need not pay for transit service. As a result, as Internet network industry expert Dr. Constantine Dovrolis puts it, "Netflix's tactics to impose transit costs on [this type of ISP] are less susceptible to success," and that is the "likely reason for this disparity between business arrangements with Netflix" among ISPs. *See* Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, Exhibit 5, Declaration of Constantine Dovrolis, at 25, MB Docket No. 14-57 (Sept. 23, 2014) ("Dovrolis Decl."); *see also* Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, Exhibit 4, Declaration of Kevin McElearney ¶¶ 8, 47, MB Docket No. 14-57 (Sept. 23, 2014) ("McElearney Decl.").

[11] *See* Israel Reply Decl. ¶ 153.

[12] *See, e.g.*, Gregory Werden et al., *Merger Simulation*, Econometrics: Legal, Practical, and Technical Issues 269 (2005).

[13] Israel Reply Decl. ¶¶ 162-63.

[14] *Id.* ¶ 162.

subscribers, yet Netflix's expert states that, due to its network architecture (presumably including its Internet backbone), CenturyLink has "substantially more bargaining leverage" than does Charter.[15]

Subsequent work by Dr. Israel demonstrates that controlling for additional dimensions of network quality (e.g., upload and download speeds) does not change this conclusion. Although the inclusion of variables capturing network quality as opposed to the quality of direct interconnection is less pertinent to the question of the value to edge providers of a direct interconnection link into the network, Dr. Israel's supplemental analysis nonetheless finds that even if such controls are included, the results continue to hold.[16]

In sum, economic theory and empirical evidence do not support the proposition that ISPs can exercise anticompetitive bargaining power vis-à-vis edge providers based upon serving a larger retail subscriber base. Accordingly, there is no reason to believe that Comcast will obtain more bargaining leverage post-transaction by obtaining a larger footprint.

C. Edge Providers Do Not Need to Deal Directly with Comcast

The empirical evidence should not be surprising. No edge provider needs to enter into a direct agreement with Comcast to gain "access" to Comcast's Internet subscribers. In fact, the vast majority of such firms access Comcast through intermediaries and aggregators (transit provider and CDNs). That is true today and will be equally true even once Comcast acquires seven million more subscribers. The availability of multiple (often settlement-free) paths into Comcast's network on which edge providers can rely distinguishes the Internet ecosystem from MVPD-programmer negotiations in the video context, where (putting aside must-carry, leased access, and PEG channels) Comcast exercises control over access to its network, deciding which programming networks to carry or not carry. On the Internet, the stakes to the edge provider involved in not reaching a direct interconnection agreement with Comcast are very low, because so many indirect alternatives exist – which further undermines any leverage that Comcast might have vis-à-vis edge providers.

Dr. Israel has explained that "the recognized intense competitiveness of backbone services places strong constraints on an ISP's ability to manipulate interconnection terms in a way that would harm edge providers, whatever the size of its last-mile network."[17] As set forth in Comcast's response to Question No. 1, Comcast has, and will continue to have post-transaction, more than 40 settlement-free peers[18] and numerous other commercial

[15] *Applications of Comcast Corp., Time Warner Cable Inc., Charter Communications, Inc., and SpinCo for Consent To Assign or Transfer Control of Licenses or Authorizations*, Netflix, Inc. Petition to Deny, Declaration of David Evans ¶ 147, MB Docket No. 14-57 (Aug. 25, 2014).

[16] *See* forthcoming analysis from Dr. Israel.

[17] Israel Reply Decl. ¶ 43.

[18] Most of which do or could sell transit to Comcast's network.

interconnection agreements that provide a large number of transit paths into its network.[19] As Dr. Israel has demonstrated, even during the Netflix incident described below:

> **{{** **}}**.[20]

Thus, there is and has always been ample capacity into Comcast's network available to edge providers *from third parties*. And because Comcast must maintain its routes with its settlement-free peers (and with the major CDN providers) on which it relies to reach the rest of the Internet, Comcast cannot eliminate those routes or allow them to seriously congest without suffering harm itself.[21]

Further, Comcast is constrained in its interactions with large global Internet backbone providers. The transaction does not change this dynamic: large global Internet backbone providers like **{{** **}}** would be highly unlikely to relinquish their "Tier 1" status (i.e., ISPs that do not pay any provider) and suddenly agree to pay Comcast for interconnection simply because of Comcast's acquisition of TWC's seven million subscribers. Indeed, in many cases, **{{** **}}**.[22] If Comcast attempted to change its relationship with these firms, it would face disputes and growing congestion on the main arteries that assure it the interconnectedness to the rest of the global Internet that it needs to offer its Internet access services to residential and commercial customers.[23]

Again, the upshot is that these providers can sell access to Comcast's network (and most do) without paying Comcast. The fact that Comcast's rates (per Mbps) for direct on-net and off-

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[19] McElearney Decl. ¶ 3.

[20] *See* forthcoming analysis from Dr. Israel.

[21] As Professor Scott Hemphill testified in connection with the proposed transaction, "an ISP is unable to degrade online video delivered in this fashion without also degrading other traffic delivered by the middleman." Oversight Hearing on Competition in the Video and Broadband Markets: The Proposed Merger of Comcast and Time Warner Cable: Hearing Before the H. Comm. on the Judiciary, Subcommittee on Regulatory Reform, Commercial and Antitrust Law, 113th Cong. (May 8, 2014) (Testimony of C. Scott Hemphill, Columbia University, at 5) ("Hemphill Testimony"), *available at* http://judiciary.house.gov/_cache/files/14da5814-6ef9-4313-8ce7-ce81440a7198/hemphill-testimony.pdf.

[22] McElearney Decl. ¶¶ 5, 9.

[23] As Dr. Dovrolis explained, "Access providers cannot demand direct interconnection arrangements (or payments) from the various content providers, CDNs, and other networks that send them traffic. Those providers always have the option of sending their traffic to an access provider by using the various indirect transit providers that provide the core interconnectivity of the Internet; no access provider can fulfill its role reliably and efficiently without being densely interconnected with several transit providers." Dovrolis Decl. at 5.

net transit have continued to decline over time, with rates for many counterparties well below third-party transit prices, is powerful evidence that Comcast lacks substantial bargaining power in interconnection negotiations. Netflix, for example, pays **{{ }}**,[24] and **{{ }}**.[25] Moreover, counterparties typically **{{ }}**.

Most edge providers will not even consider a direct connection with Comcast, because that is only an efficient solution for providers with substantial traffic and the resources to invest in distributed servers. But even for an edge provider that might consider a direct connection with Comcast, the "cost" to that edge provider of walking away from a negotiation with Comcast is low and will not be affected by this transaction. Failure to reach a direct agreement does *not* preclude access to Comcast's Internet subscribers. Rather, as noted above, the content provider can instead purchase transit services from one of Comcast's existing interconnection counterparties to reach any subscriber in Comcast's network.[26]

In fact, most edge providers find it more efficient to pool their traffic by using third-party CDNs. The ability of small edge providers to pool their traffic through CDNs with larger edge providers fundamentally distinguishes this from the video context. Meanwhile, the largest edge providers stand to gain from efficient direct interconnection (delivery quality assurance and added certainty), and they have already gained (by peering with Comcast at lower cost than they are charged by a third-party CDN or transit provider).[27]

D. <u>The Netflix Dispute Illustrates That Comcast Lacks Bargaining Power vis-à-vis Edge Providers</u>

Critics of the merger have pointed to Comcast's direct interconnection agreement with Netflix to suggest that Comcast has bargaining leverage over edge providers. In fact, it demonstrates that Comcast reaches flexible, mutually beneficial agreements that do not reflect the exercise of market power on Comcast's part. Nothing about that deal implies that Comcast has "too much" bargaining leverage over content providers or that Comcast will gain any such leverage post-transaction. To the contrary, the facts reveal that – unlike Netflix – Comcast has consistently behaved as a responsible member of the Internet ecosystem.

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[24] Israel Reply Decl. ¶ 243.

[25] **{{ }}**. See COMC-COM-00000341 (**{{ }}**).

[26] Hemphill Testimony at 5 ("Online video distributors are under no obligation to pay directly for interconnection. They are typically free to contract with middlemen, such as backbone providers and content delivery networks, that in turn deliver the content to the ISP. Those alternatives mean that an ISP is unable to degrade online video delivered in this fashion without also degrading other traffic delivered by the middleman.").

[27] *See* McElearney Decl. ¶¶ 43-44; Dovrolis Decl. at 11.

Netflix, like all edge providers, is uniquely and exclusively in control of how its Internet traffic reaches destination networks like Comcast.[28] It was *Netflix*, not Comcast, that deliberately created congestion issues that degraded the performance of Netflix for Comcast customers (and customers of other ISPs) in an effort to force Comcast (and others) to provide Netflix with free interconnection services. Before Netflix decided to in-source its CDN services, Netflix used Limelight, Level 3, Akamai, and other CDNs and transit providers to deliver traffic to Comcast.[29] During those periods, Comcast Internet customers received good Netflix performance, as reflected in Netflix's own ISP rankings.[30]

Netflix then made the unilateral business decision to transition to its own CDN.[31] Unlike other CDNs, however, which typically pay for interconnection services to ensure there is ample capacity to handle their traffic loads, Netflix insisted on free interconnection without regard to traffic balance.[32] After Comcast declined this demand, Netflix made the deliberate choice to route its traffic to Comcast through only a small handful of select transit providers that did not have adequate capacity to handle Netflix's volume of traffic.[33] A typical CDN has hundreds of transit relationships in place to route its traffic, but Netflix chose only three.[34] Netflix's decision to move traffic onto Cogent's routes into Comcast's network caused Cogent's traffic load to

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[28] *See* McElearney Decl. ¶ 37.

[29] *Id.*

[30] *Id.*; *see* Netflix ISP Speed Index Archives, Nov. 2012, http://ispspeedindex netflix.com/results/usa/archives?field_date_value%5Bvalue%5D%5Byear%5D=2012&field_date_value%5Bvalue%5D%5Bmonth%5D=11.

[31] McElearney Decl. ¶ 36. A recent study conducted by researchers at MIT and CAIDA finds that there is no widespread "congestion problem among the U.S. providers"; rather, "[m]ost congestion . . . can be attributed to recognized business issues" and "decisions by content providers as to how to route content." MIT Information Policy Project, Measuring Internet Congestion: A Preliminary Report, at 2 (2014), *available at* https://ipp mit.edu/sites/default/files/documents/Congestion-handout-final.pdf. The full study is available at http://groups.csail.mit.edu/ana/Measurement-and-Analysis-of-Internet-Interconnection-and-Congestion-September2014.pdf.

[32] Like edge providers, CDNs may be more likely to pay larger ISPs, which offer them high-quality backbone services, and are more likely to have free arrangements with smaller ISPs that lack major backbone networks, since (among other things) small ISPs would see even a free arrangement as preferable to paying for transit to receive a CDN's traffic.

[33] McElearney Decl. ¶¶ 36-37. One such provider was Cogent, which has a history of accepting traffic volume beyond its delivery capacity (i.e., overselling capacity), as evidenced by its recent disclosure that it faced such dire congestion in February and March 2014 that it created a fast lane that disfavored the traffic of Netflix and other content providers. *See* Dan Rayburn, *Cogent Now Admits They Slowed Down Netflix's Traffic, Creating A Fast Lane & Slow Lane*, StreamingMedia.com, http://blog.streamingmedia.com/2014/11/cogent-now-admits-slowed-netflixs-traffic-creating-fast-lane-slow-lane.html.

[34] Netflix technically routed traffic through five providers, but three of those five providers were primarily international, leaving "only two U.S.-based major transit providers to carry the lion's share of Netflix's massive traffic load." McElearney Decl. ¶ 37.

Comcast to increase by approximately 500% in just a few months' time – the type of traffic increase that one would usually expect over several *years*.[35]

The effect of this was to create congestion over those links into Comcast's network – which, in turn, caused Comcast Internet subscribers to experience poor Netflix performance, as well as degraded performance of *all other traffic* coming over those links.[36] Netflix persisted in sending its traffic through these congested routes even though there was abundant capacity available to Netflix via other routes into Comcast's network that Netflix elected not to utilize.[37] Interestingly, at the very same time, a small amount of traffic that Netflix continued to send over Limelight into Comcast's network was delivered with continued high performance.[38]

Netflix apparently chose to create these performance issues for Comcast subscribers in an attempt to coerce Comcast to acquiesce and provide Netflix with free interconnection. This type of conduct is not typical of the major players on the Internet, which tend to cooperate to ensure that the ecosystem operates as it should. But Netflix's actions followed a well-known tactic to coerce free peering, which is described in *The Art of Peering: The Peering Playbook*.[39] Importantly, this issue was not limited to Comcast – other ISPs (like Verizon, AT&T, and TWC) also fell victim to the same tactics from Netflix, which further underscores that it was not Comcast's business decisions or conduct that created this issue with Netflix.[40]

Netflix's coercion tactics did not succeed,[41] and Netflix ultimately decided to enter into a long-term, mutually beneficial interconnection deal that provides Netflix with **{{ }}**.[42] At the time, Netflix's CEO characterized

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[35] McElearney Decl. ¶ 41.

[36] "The resulting congestion not only affected Netflix traffic but also disrupted other customers of Comcast and Cogent," which led to a number of complaints from non-Netflix customers like hospitals. *Id.*

[37] *Id.* ¶¶ 36-37.

[38] *Id.* ¶ 34.

[39] *Id.* ¶ 32; *see also* http://drpeering.net/white-papers/Art-Of-Peering-The-Peering-Playbook.html.

[40] *Id.* ¶ 42.

[41] *See supra* n.10.

[42] *See* McElearney Decl. ¶ 43. Dr. Dovrolis puts this interconnection deal into its proper context: "Although Netflix and Cogent suggest that Comcast forced Netflix into direct interconnection by causing congestion on its routes with Cogent, it is important to remember that it is the networks that send traffic over the Internet (including content providers) that control how to route that traffic. . . . These routing decisions can be made in real-time and they can be adjusted on a minute-by-minute basis depending on the measured performance of each interconnection, cost considerations, and the usage constraints of each interconnection. In contrast, the receiving network cannot control the routing of the traffic it receives. It cannot stop a content provider from pushing all its traffic over one interconnection link rather than spreading it among several, or from using up all available capacity on a particular link the moment it becomes available, creating serious congestion issues." Dovrolis Decl. at 5.

the agreement as "affordable" for Netflix and beneficial to consumers.[43] Mr. Hastings stated that "[w]e found middle ground on our issues that worked well for both of us in the long term and works great for consumers."[44] Mr. Hastings has also characterized the amount that Netflix pays to Comcast for the direct interconnection arrangement as "tiny."[45] In addition, Mr. Hastings praised the technical ability of the Comcast team implementing the direct interconnection agreement, noting that "[y]our team's technical agility in the last few days in turning on the ports is like nothing we've ever seen anywhere in the world."[46]

With this agreement in place, any post-merger attempt by Comcast to disadvantage other OVDs would disproportionately benefit Netflix, not Comcast: OVD subscribers dissatisfied because of performance issues would likely switch to Netflix as a closer substitute with guaranteed high performance. The "diversion rate" between Netflix and other OVDs is likely much higher than any speculative diversion rate between Netflix and Comcast's MVPD service. The Netflix agreement, therefore, should further mitigate any theoretical concern that Comcast would begin attempting to harm edge providers, because any theoretical benefits from such conduct would likely run to Netflix, not Comcast.[47]

Finally, Netflix's decision to oppose Comcast's proposed merger with Time Warner Cable is opportunistic. Not surprisingly, Netflix would prefer to pay nothing for services it receives from Comcast. Netflix apparently believes that it can achieve this goal by manipulating the merger review process for its own purposes. In fact, Netflix's CEO expressly said as much in an email to Comcast executives, where he stated that if Comcast did not accept Netflix's demand for free interconnection, then Netflix would "have to protest the merger to increase the odds of winning the condition" through regulators.[48] To be sure, free interconnection would be a good deal for Netflix and its shareholders. But it would not be a good deal for Comcast or its subscribers, who would ultimately be subsidizing Netflix's business, whether they subscribe to Netflix or not.

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[43] COMC-ROB-00012809.

[44] COMC-SCS-00019696.

[45] Gauthem Nagesh & Shalini Ramachandran, *Comcast*, *TWC Blast Critics of Merger*, Wall St. J. (Sept. 24, 2014), http://online.wsj.com/articles/comcast-time-warner-cable-say-merger-wouldnt-reduce-choice-1411563601?tesla=y. Indeed, the fact that the amount is "tiny" refutes the notion that Comcast possesses any significant bargaining leverage.

[46] COMC-SCS-00019696.

[47] Carlton Decl. ¶ 15.

[48] COMC-SMN-00051915.

E. <u>Consumer Welfare Will Not Be Harmed Even if Comcast Gained Bargaining Leverage</u>

Even assuming the merger were to provide Comcast with some additional bargaining leverage vis-à-vis edge providers or their agents (CDNs and transit providers), there would still be no reason to believe that consumers would be harmed in any way. Neither economic theory nor empirical evidence supports the idea that consumers would be harmed by a mere shift in bargaining position between Comcast and edge providers.

1. Economic Theory Does Not Predict Consumer Harm from a Mere Shift in Bargaining Power

Both Internet subscribers and Internet content providers separately pay Comcast to facilitate access by subscribers to content. Comcast thus operates a two-sided platform. The "seesaw" principle of two-sided markets implies that if Comcast charges content providers more for interconnection, then Comcast has an incentive to charge Internet subscribers less.[49] The overall welfare effects of pricing changes in two-sided markets depend on a variety of market-specific characteristics; there is no general economic support for claiming that higher prices on the content provider side of the market will harm consumers.[50]

In fact, Dr. Israel's analysis demonstrates that specific characteristics of the market for Internet access services suggest that payments by content providers are likely to increase economic efficiency.[51] For example, Internet subscribers who do not use OVDs effectively subsidize Internet subscribers who use OVDs a lot.[52] Charging the content provider for interconnection reduces that cross-subsidization and increases efficiency because the content provider will pass through interconnection costs only to its own customers: the very ones driving traffic to the ISP's network.[53] Dr. Carlton similarly observes that Cogent expert "Dr. Farrell's model – the only formal economic model presented in [the FCC's] proceeding – demonstrates that consumers typically benefit from increases in interconnection fees."[54]

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[49] *See* Israel Reply Decl. ¶ 183 (describing theory developed in Jean-Charles Rochet & Jean Tirole, *Two-sided markets: a progress report*, 37 RAND J. Econ. 654-667 (2006)).

[50] Israel Reply Decl. ¶ 184.

[51] *Id.* ¶ 186.

[52] *Id.* ¶ 189.

[53] *Id.*; Professor Hemphill testified: "Paid peering is best seen not as an instrument of exclusion, but as a means to put a price on the additional capacity demands resulting from the increased popularity of online video. It is efficient for the distributor and its end users, considered collectively, to pay for that capacity, rather than spreading the expense among all ISP customers. Doing so better aligns use with cost and incentivizes both investment and economical use." Hemphill Testimony at 6; *see also* Dovrolis Decl. at 20, 24.

[54] Carlton Decl. ¶ 13 n.26.

Charging content providers can also cause marginal prices to more closely reflect marginal network costs imposed by Internet traffic. Marginal cost pricing yields efficient market outcomes. Content providers impose costs on Comcast's network and, in general, even where content providers pay Comcast, such payments are below that marginal network cost.[55] If Comcast interconnection prices more closely reflected marginal network cost, content providers would likely react by making more efficient traffic routing decisions in real time, undertaking more investment in technologies to optimize traffic routing, compressing and caching content files, and adopting pricing policies that charge light users less than heavy users.[56] All of these results are likely to improve economic efficiency and ultimately benefit consumers.

2. Direct Interconnection Between Content Providers and Comcast Benefits Consumers

Direct interconnection eliminates payments from content providers to transit providers and CDNs and replaces them with direct payments to an ISP.[57] When direct interconnection between a content provider and Comcast is a feasible solution, doing so can improve quality and reduce cost as compared to some third-party providers.[58]

Direct interconnection between content providers and ISPs also frees up capacity on transit providers' and CDNs' networks for use by other content providers that do not interconnect with Comcast directly.[59] For example, following the Netflix deal, Cogent's interconnection links with Comcast became uncongested, making low-cost capacity available for other users.[60] More generally, Dr. Israel's empirical analysis of the effects of announcing the Comcast/TWC merger and the Comcast/Netflix peering deal suggests that market participants do not think content providers will be harmed by such impacts on interconnection.[61]

In any event, as explained above, no edge provider needs to reach a direct interconnection agreement with Comcast or any other ISP. Most edge providers will continue to rely on services available from multiple CDNs and transit providers that offer connections to every ISP at competitive and declining prices. For Netflix and other very large edge providers, direct

[55] Israel Reply Decl. ¶ 191.

[56] *Id.* ¶ 192.

[57] *Id.* ¶ 173.

[58] *Id.* (explaining that the "economic efficiency of 'cutting out the middleman' is well recognized in economics across a wide range of industries").

[59] *Id.* ¶ 175.

[60] McElearney Decl. ¶ 41.

[61] Israel Reply Decl. ¶ 179.

interconnection simply adds another option – one that cuts out a middleman and can create more efficient connections with ISPs.[62]

3. Interconnection Costs Are Very Low and Do Not Harm Edge Providers

As Dr. Carlton explained in his submission to the FCC, empirical evidence refutes the suggestion that Comcast has or will have the ability to harm edge providers and, ultimately, consumers. The facts of the Netflix agreement provide a real-world demonstration of this.

The Netflix agreement provides Netflix with **{{ }}**.[63] During that **{{ }}** period, **{{ }}**.[64] The cost of this agreement to Netflix is de minimis. Netflix pays Comcast **{{ }}**.[65] By its own admission, these costs are "tiny"[66] and "affordable"[67] for Netflix. By way of comparison, Netflix reportedly paid approximately $700 million to mail DVDs in 2011.[68] Netflix also publicly announced in an earnings call that the interconnection payments it makes to Comcast have no material effect on its margins.[69]

Moreover, **{{ }}**. This is exactly the opposite of what one would expect if Comcast were attempting to "foreclose" Netflix or retard its growth.[70] As Dr. Carlton put it, "[r]ather than showing the significant harm that Comcast can inflict, this evidence shows exactly the reverse. Even the 'powerful' Comcast has not caused Netflix any material harm."[71] Given the empirical evidence, the overblown claims that Comcast has the ability to harm edge providers are not credible.

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[62] Dovrolis Decl. at 11.

[63] Carlton Decl. ¶ 14.

[64] *Id.* ¶ 15.

[65] *Id.* ¶ 14.

[66] Gautham Nagesh & Shalini Ramachandran, *Comcast*, *TWC Blast Critics of Merger*, Wall St. J. (Sept. 24, 2014), http://online.wsj.com/articles/comcast-time-warner-cable-say-merger-wouldnt-reduce-choice-1411563601?tesla=y.

[67] COMC-ROB-00012809.

[68] Emil Protalinski, *Mail service costs Netflix 20 times more than streaming*, TechSpot (Jan. 18, 2011), http://www.techspot.com/news/42036-mail-service-costs-netflix-20-times-more-than-streaming.html.

[69] Carlton Decl. ¶ 14.

[70] Israel Reply Decl. ¶ 119.

[71] Carlton Decl. ¶ 14.

F. <u>Broadband Competition Constrains Any "Bargaining Leverage"</u>

The narratives told by deal opponents rely on the assertion that Comcast and TWC lack competition in the broadband Internet access market and will therefore be able to disadvantage edge providers without fear of any competitive response from other ISPs. The empirical facts refute this claim. There is significant and growing competition in the broadband market and edge providers supply critical inputs to Comcast's high-value broadband business and are increasingly important outlets for NBCUniversal's content business.[72] These factors further undermine claims that Comcast would gain leverage from the transaction or that it would use such leverage to harm edge providers.

1. Comcast Faces Robust Competition in the Internet Access Market

The market for residential broadband access is competitive and is quickly becoming more competitive. FCC data show that the vast majority of homes in the United States have access to at least three Internet access providers that offer download speeds of 10 Mbps or greater.[73] Even when wireless providers are excluded, 92% of households can choose between at least two ISPs, and 54% can choose among at least three ISPs, at the 10 Mbps threshold. These include advanced DSL providers, which are increasingly able to offer high-speed offerings. For example, CenturyLink recently explained to the FCC that it "compete[s] vigorously with cable providers, wireless companies and other types of providers" currently and "continues to invest in broadband services" to expand the availability of higher-speed DSL and fiber-to-the-node broadband offerings.[74]

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[72] Comcast reiterates that broadband competition is not a merger-specific issue. The transaction will not reduce *any* broadband choices for *any* consumer anywhere in the country. Any suggestion that this transaction will somehow reduce or dampen broadband competition lacks any credibility.

[73] *See* FCC, *Internet Access Services: Status as of June 30, 2013*, at 9 (2014), *available at* https://apps.fcc.gov/edocs_public/attachmatch/DOC-327829A1.pdf. Specifically, 91% of households will have access to at least three providers, including wireline and wireless services. *See id.*

[74] CenturyLink, Inc., Response to the Federal Communication Commission's Information, Data and Document Request Issued to CenturyLink on Oct. 7, 2014, MB Docket No. 14-57; *See also* FCC, *Internet Access Services: Status as of June 30, 2013*, at 9 (2014), *available at* https://apps fcc.gov/edocs_public/attachmatch/DOC-327829A1.pdf. As discussed in Comcast's response to Question No. 1, any suggestion that DSL is not a meaningful competitor to cable broadband lacks credibility. Netflix's own speed index, which contains several DSL providers, refutes any such argument. In Netflix's latest ISP speed index, for example, the top-ranking large ISP (Verizon FiOS) realized an average speed of 3.17 Mbps. *See* http://ispspeedindex.netflix.com/usa. DSL is readily capable of achieving that speed and beyond. Indeed, in response to Netflix's disparaging remarks about DSL in its FCC advocacy, networking and communications equipment manufacturer ADTRAN, Inc. filed a submission with the FCC noting that "DSL technologies have continued to evolve, and currently are able to support robust high-speed services, including HD video streaming." Reply Comments of ADTRAN, Inc., at 3, MB Docket No. 14-57 (Nov. 7, 2014). As ADTRAN explained, "[T]he evolution of DSL technologies allows service providers to significantly exceed" the speeds that Netflix claims are required even for streaming of Ultra 4K HD video, demonstrating that DSL providers are "capable of serving as suitable alternatives that meet the Netflix recommendations for streaming services." *Id.* at 5-6.

Meanwhile, significant advances in wireless broadband speed and quality with the widespread deployment of LTE and other new technologies are making wireless broadband service an increasingly attractive alternative to wired connections, as Comcast's own normal course business documents and independent observers recognize.[75] As explained in Comcast's response to Question No. 1, many consumers today are using wireless broadband service as at least a partial substitute for fixed broadband service. That trend is likely to accelerate in the future.[76]

Moreover, recent market entry by companies such as Google Fiber and growing municipal broadband networks suggest that competition among ISPs is likely to increase. Indeed, the announcement of the Comcast/TWC merger apparently spurred a competitive response from AT&T, which stated that the merger created a "heightened sense of urgency" for AT&T's planned wired broadband investments.[77]

2. Broadband Competition Is a Check on ISP Leverage vis-à-vis Edge Providers

Competition with ISPs for subscribers places a meaningful limitation on Comcast's bargaining power in interconnection negotiations. If Comcast were to attempt to disadvantage or degrade the quality of edge providers' services, it would have a damaging effect upon Comcast's broadband business. Customers who value edge providers' content would likely switch to competing ISPs that offer unimpeded access to such services, particularly because switching

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[75] *See, e.g.*, COMC-AVC-00035712 (**{{**

}}); COMC-NAT-00039811 (**{{**

)**}}**). New wireless technologies advance the wireless threat to wireline providers. For example, LTE multicast, based upon evolved Multimedia Broadcast Multicast Service ("eMBMS"), allows identical content to be sent to many customers at the same time, thus enhancing network efficiency and increasing effective network capacity. *See, e.g.*, Jeff Baumgartner, *Verizon CFO: LTE Multicast 'Pivotal' To Mobile Video,* Multichannel News (Aug. 12, 2014), http://www.multichannel.com/news/technology/verizon-cfo-lte-multicast-pivotal-mobile-video/383137. Verizon has reportedly called the advent of Multicast "the pivotal point that starts to change the way content is delivered over a mobile handset which opens up content into the wireless world." Phil Goldstein, *AT&T to Launch LTE Multicast in 2015*, FierceWireless (Aug. 13, 2014), http://www.fiercewireless.com/story/att-launch-lte-multicast-2015/2014-08-13. AT&T and Verizon have announced plans to launch LTE multicast service in 2014.

[76] A recent report on Internet trends notes that mobile usage as a percentage of web usage increased from 11% in May 2013 to 19% in May 2014 in North America. *See* Mary Meeker, Internet Trends 2014 – Code Conference, KPCB (May 28, 2014), at slide 9, *available at* http://s3.amazonaws.com/kpcbweb/files/85/Internet_Trends_2014_vFINAL_-_05_28_14-_PDF.pdf?1401286773. Data from SNL Kagan indicate that by the end of 2018, there will be 316 million primary 4G LTE subscriptions and 224 million pure 4G LTE subscriptions in the United States. Israel Decl. ¶ 62.

[77] Remarks of Randall Stephenson, Chairman & CEO, AT&T Inc., Morgan Stanley Technology, Media & Telecom Conference (Mar. 6, 2014), *available at* http://seekingalpha.com/article/2072813-at-and-ts-ceo-presents-at-morgan-stanley-technology-media-and-telecom-conference-transcript.

costs are low.[78] And customers can and do frequently switch ISPs – Comcast's data show that up to **{{ }}** of Comcast's broadband subscribers churn each year.[79] Likewise, Comcast subscribers might elect to downgrade their broadband service tier, or decline to upgrade to a faster service tier, which would be similarly detrimental to Comcast's business.[80]

Indeed, the recent survey conducted by Global Strategy Group at Comcast's request found that most customers would readily switch ISPs if their providers interfered with access to Internet content. Consumers also confirmed that they would even switch to a *slower* broadband provider – including non-upgraded DSL and wireless providers – if the alternative were a higher-speed connection with blocked, degraded, or otherwise inhibited access to Internet content.[81]

3. Edge Providers Enhance the Value of Comcast's Broadband and Content Businesses

Edge providers supply content that enhances the value of Comcast's broadband product. And Comcast's broadband business is increasingly valuable to the company, so anything that puts its broadband subscribers at risk would be particularly troublesome for the company. As explained in Comcast's response to White Paper Question No. 1, Comcast's broadband business is higher-profit than its video business. According to an October 2013 internal overview of customer lifetime value ("CLV"), the CLV for a data-only customer is **{{ }}** that of a video-only customer.[82] Thus, Comcast would need to acquire **{{ }}**.[83]

Harming its broadband service would also result in the loss of double-play customers. Comcast

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[78] Fewer than **{{ }}**% of Comcast's current residential broadband subscribers are subject to a contractual commitment. Comcast Response to the Federal Communications Commission's Request for Information Issued to Comcast Corporation on August 21, 2014 ("FCC RFI Response"), at 199-200; Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, MB Docket No. 14-57, ("FCC Opposition and Response"), at 137.

[79] FCC RFI Response at 199-200; FCC Opposition and Response at 137.

[80] Israel Reply Decl. ¶¶ 63-64.

[81] FCC RFI Response at 195-204; FCC Opposition and Response at 200-03. This finding is in line with the results of a survey conducted by Consumer Reports earlier this year. According to the Consumer Reports survey, 71% of respondents said they would switch to an alternative ISP if their provider were to try to block, slow down, or charge more for services such as Amazon Instant Video, Netflix, Pandora, and Skype. The nationally representative survey was conducted by the Consumer Reports National Research Center in February of 2014 and sampled 800 U.S. households with broadband service. Glenn Derene, *71% of U.S. Households Would Switch from Providers That Attempt to Interfere with Internet*, Consumer Reports (Feb. 18, 2014), *available at* http://www.consumerreports.org/cro/news/2014/02/71-percent-of-households-would-switch-if-provider-interferes-with-internet-traffic/index.htm.

[82] This information is taken from Comcast's October 2013 presentation titled "Customer Lifetime Value (CLV)," which was developed by the Finance Department at Comcast. *See* COMC-COM-00009260.

[83] *See* Israel Reply Decl. ¶ 60.

would need to add **{{**
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Thus, the costs to Comcast of degrading its broadband service are substantial and outweigh any theoretical benefit such a strategy would yield for its video business – especially because dissatisfied customers might instead choose one of Comcast's many MVPD competitors, like DBS, telcos, and other overbuilders.[84] Dr. Carlton arrives at this same conclusion. He establishes that, even if Comcast and OVDs compete in certain ways (e.g., for SVOD or EST customers), because Comcast's broadband product is complementary with OVDs' video product, any attempts to harm OVDs will cause Comcast to "lose sales" of its broadband product "by making the complementary product . . . less valuable." This is "why firms do not find it in their interest" to harm a "rival" that makes a complementary product.[85] In fact, because they currently have the ability to "negotiate flexibly and directly" with each other, ISPs and OVDs "have an incentive to negotiate terms that split the surplus that their interaction generates in a way that makes both better off."[86]

In addition, OVDs have also become significant purchasers of NBCUniversal content. In 2013 alone, OVDs accounted for nearly **{{** **}}** in revenue for NBCUniversal – a figure that has grown more than fivefold since 2009. This creates a significant and growing *disincentive* for Comcast to harm or degrade the performance or viability of OVDs, which TWC does not have currently.[87] Thus, to the extent the merger has an effect on incentives as they relate to OVDs, it only decreases the incentive to target them for harm.

4. Open Internet Protections

Finally, OVDs are protected on the "last mile" – and Comcast is precluded from acting to foreclose their access – by the Open Internet commitments Comcast made in the NBCUniversal orders, which will be in place until 2018. And long before that, Comcast fully expects the FCC

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[84] *See* Hemphill Testimony at 5 ("Online video is an important and increasing part of the value provided by broadband Internet. Harming a growing business to preserve a declining one is a costly and doubtful business strategy. That fact reduces the incentive to engage in foreclosure."). In addition to lost subscribers and revenue, Comcast would also incur significant reputational damage if it attempted to disadvantage edge providers. For example, when Comcast subscribers experienced poor Netflix performance in late 2013/early 2014 as a result of Netflix's unilateral decision to route traffic over congested interconnection links, Comcast experienced a spike in Netflix-related customer service calls. Even though Comcast had no control over Netflix's conduct, customers and press reports blamed Comcast for the incident. *See also* Dovrolis Decl. at 17 ("Internet users typically complain to their access provider . . . when they experience the effects of poor interconnection. . . . As a result, the risk of poor network performance is mostly borne by access providers like Comcast."). Comcast would likely face a powerful backlash if it were to affirmatively attempt to degrade access to Internet content.

[85] Carlton Decl. ¶ 12 (stating a firm would have "no interest" in excluding from the market low-cost and high-quality varieties of a product that "makes its own product more attractive to consumers" (quoting Rey & Tirole (2007)).

[86] *Id.* ¶ 12.

[87] *See* Comcast's response to Question No. 1.

to have put in place generally applicable Open Internet rules that extend and replace those protections. In the interim, Comcast's proposed acquisition of 7 million more subscribers would protect OVDs by extending these protections to OVDs vis-à-vis TWC's currently unprotected markets.

In short, customers have a variety of broadband choices, they can and do switch providers frequently, and this merger does *not* reduce those choices. Any attempt by Comcast to degrade or harm edge providers would result in the potential loss of valuable broadband customers and significant damage to Comcast's reputation. In addition, OVDs are increasingly significant licensees of NBCUniversal content, which further underscores Comcast's disincentive to disadvantage OVDs. Given these factors, there is no basis to conclude that Comcast would have any increased incentive or ability to harm edge providers post-transaction, and hence no greater leverage in negotiations with edge providers.

Question No. 4

Comcast has suggested that there is confusion in the record concerning its policies and practices with respect to authentication of applications and devices, including on the X1 and X2. Please elaborate on this subject.

Response to Question No. 4

As a preliminary matter, Comcast notes that this question does not appear to be merger-specific. We are aware of no reason why the proposed transaction would change Comcast's likely conduct with respect to authentication, except perhaps to facilitate greater investment in this area to the benefit of subscribers.[1] In any event, as detailed below, Comcast already provides authentication services for a wide variety of TV Everywhere ("TVE") content on a host of devices, and Comcast continues to *expand* customer choice of content and devices and will continue to do so in the future. Comcast's scale as the largest MVPD has helped facilitate the large fixed-cost investments necessary to give customers access to more TVE content on more devices. At a minimum, the transaction will help extend the benefits of this investment to TWC systems and should also facilitate greater investment in TVE services in Comcast's systems.

Comcast has adopted a flexible, case-by-case approach to authenticating TVE services. It is not feasible to set forth a uniform policy in this areas given that deployment of authentication services is governed by Comcast's bespoke agreements with individual programmers and device manufacturers. It is important that Comcast maintain the flexibility to determine how it should invest time and resources in authentication services to best meet market demand and satisfy consumer preferences.

In response to the second part of the question above, TVE authentication services are not relevant to X1-capable set-top boxes[2] or any other Comcast-supplied set-top boxes. Customers already receive all of the cable services to which they subscribe on these boxes. There is no reason why a customer would ever have a need for a programmer's TVE application ("app") on the box, and no reason why a programmer would prefer that a Comcast customer watch its programming through an online app on the box rather than through Comcast's cable service offering on that very same box. As to the inclusion of other third-party apps on X1-capable set-top boxes, Comcast is in the midst of experimenting with apps on this platform to see if there is sufficient customer interest and to understand what would make sense in light of its overall

[1] Authentication services verify that (i) a consumer trying to access TVE video programming over the Internet is a Comcast customer, and (ii) the video programming the customer is attempting to access is part of that customer's cable service package.

[2] The X1 is actually a cloud-based platform, not a set-top box, though we refer to "X1-capable set-top boxes" or "X1 boxes" in many cases. X1 can be accessed on Comcast-supplied equipment, such as the XG1 set-top box, or customer-owned equipment, such as a tablet or smartphone using the Xfinity TV app. The key objective of X1 was to migrate away from the legacy set-top box model – where navigation, security, and business logic were tied to a single piece of hardware – to a cloud-based model, where many of these features are now resident in cloud-based servers. This has allowed Comcast to innovate far more rapidly than under the legacy model, as new features can be downloaded to the set-top box or run out of the cloud.

Xfinity cable service offering. As with any new service, Comcast is exploring the future direction of this platform in a way that best fits consumer demand and promotes a differentiated, innovative product in the industry.

A. <u>Comcast Is Expanding Customer Access to TVE Services on Customer-Owned Devices</u>

Comcast has been steadily expanding its authentication services for programmer websites and apps across a growing array of devices. Comcast now provides authentication services for more than **[[ ]]** different program networks on up to **[[ ]]** different device platforms.[3] For example, HBO Go is authenticated on the HBO website, as well as iOS and Android devices, Apple TV, Xbox 360, Xbox One, Kindle Fire, and Samsung smart TVs. This year alone, Comcast has already integrated its authentication services with **[[ ]]** additional networks on **[[ ]]** different device platforms, and this trend will only continue.[4] Comcast is actively negotiating TVE rights – including specifically authentication of the programmer's own website and/or apps – with several different programmers or program groups, including, among others, **{{ }}**.[5]

Comcast also makes its TVE services available via the Xfinity TV website and TV Go app.[6] Comcast believes that customers value the ability to access a wide range of TVE content through one aggregated source, rather than having to jump from one programmer app to another, and Comcast's own TVE services aim to satisfy that demand. The Xfinity website and app include thousands of on-demand assets and more than 60 live streaming TV channels, and are supported on a variety of devices.[7] The Xfinity TV website can be accessed on devices using Internet Explorer, Firefox, Chrome, and Safari browsers. The Xfinity TV Go app is available on iOS and Android smartphones and tablets and Kindle Fire. Comcast is also engaged in discussions with **{{ }}** to support the Xfinity TV Go app and programmer apps on those platforms.

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[3] *See* Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, MB Docket No. 14-57, at 183-186 ("FCC Opposition and Response"); Comcast Response to the Federal Communications Commission's Request for Information Issued to Comcast Corporation on August 21, 2014 ("FCC RFI Response"), at 111-121 and Exhibit 43.

[4] *See* FCC RFI Response at 111-121.

[5] *See id.* at 116-118.

[6] While TWC has been a leader in terms of authenticating various programmer apps on different devices, TWC's own TVE offerings are also less advanced and have far less content than Comcast's. Further, TWC lacks the VOD content that Comcast offers, so in some cases TWC can offer its customers more content by authenticating the programmer's app than it can by providing TVE access to its own cable service offerings from the same programmer.

[7] This includes several small independent programmers that might otherwise not offer online TVE options, because of the resources required to develop an app that can support video streaming and to pay for back-office support for authentication and other services.

Specifically **{{**

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B. Current Authentication Practices Reflect Marketplace Realities and Are Consumer Driven

Comcast does not have a "uniform approval policy" for authentication services. Such an approach is neither feasible nor desirable. Comcast, like any other MVPD that provides authentication services, must obtain TVE rights from a programmer before it can authenticate customers to access the programmer's content via Comcast's and/or the programmer's website or app.[8] Often, Comcast's TVE rights are negotiated as part of a broader carriage agreement, which includes many issues beyond TVE (from license fees to marketing to ad shares). As a result, the scope of the TVE rights granted to Comcast varies from deal to deal.

Furthermore, reaching a TVE deal often involves substantial, complex negotiations, particularly as TVE rights become more valuable and even more so as programmers begin to offer their own over-the-top subscription services.[9] The negotiations, especially to the extent that they include authenticating the programmer's own app, cover (among other things): (1) what programming content is included; (2) how customers are authenticated; (3) on what platforms and devices customers may be authenticated (which is often driven by rights issues); (4) how the programmer must protect the data and viewing information of Comcast subscribers and how it may use such information; and (5) what advertising can be displayed when a Comcast subscriber views the authenticated content.[10] Even with rights in place, support for authentication of a programmer's website or app, and the necessary integration work, can take two or three months or longer to complete.

In those cases where Comcast is seeking the right to include its *own* Xfinity app on the device, Comcast typically enters into an agreement with the device platform provider. In determining whether to enter into a direct agreement with a device platform provider for its own app, Comcast will take a number of factors into account, including: (1) the device platform's usage and performance,[11] so Comcast can assess whether the platform is likely to add value for

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[8] *See* FCC RFI Response at 111-121.

[9] In most cases, Comcast and the programmer work through these issues, but discussions over TVE-related rights and authentication services can sometimes take a long time to complete.

[10] Programmers also have different approaches to authentication. Some may negotiate TVE rights for authentication via Comcast's website and app as well as the programmer's website and app; others may want to be authenticated via Comcast's own website and app, but no interest in Comcast authenticating the programmer's website or app; and still others may have no interest in authentication services at all. *See* FCC RFI Response at 116-118. In addition, Comcast and the programmer may reach an impasse over the value of TVE rights, or a programmer may want to use authentication data to shape its own competitive offering. *See id.* at 119.

[11] This includes whether the platform has a material audience and enables the trialing of new features.

subscribers and assess the availability of resources to build an app for that platform; (2) whether the platform is able, and the device platform provider is willing, to preserve the "look-and-feel" that Comcast desires for its services across devices; (3) whether Comcast can ensure high-quality customer service on the platform; and (4) whether the platform can deliver Comcast services consistent with applicable regulatory requirements, such as closed captioning.[12]

In contrast, it is not a technical necessity that Comcast interact with a device maker in order to support authentication of a programmer's app on such device. Nevertheless, where practicable, Comcast generally prefers to work with the device maker around authentication of programmer apps as well, since such authentication can raise privacy and marketing issues regarding the device maker's access to Comcast's customers' viewing data.

Ultimately, Comcast aims to give customers the ability to watch TV when and where they want to on the wide array of device platforms. In order to do so, it continues to seek TVE rights from programmers. NBCUniversal is also a leader in extending such rights to MVPDs. Comcast has been partnering with programmers and device platform providers to make apps and other online content available to its customers on a broad and growing array of customer-owned devices. It undertakes a pragmatic approach in providing authentication services on different device platforms to ensure that Comcast is meeting actual customer demand and preserving the Comcast user experience across platforms and services. In this regard, Comcast initially focused its TVE efforts on those platforms with the greatest customer usage (tablets and smartphones), and has been integrating with new device platforms over time.

C. Comcast Is Working to Streamline Customer Access to TVE Services

Comcast is undertaking significant efforts to improve customers' ability to switch seamlessly between different TVE apps on the same device or across different devices. One such area is reducing the inconvenience of re-authentication. Comcast is working with its industry partners on new solutions to make authentication as consumer-friendly as possible, including:

- **In-Home Authentication.** Comcast is working on solutions to enable a more seamless authentication experience within a customer's home. Under this concept, to complete the authentication process, users would simply need to verify their MVPD by selecting Xfinity from the MVPD selector screen. Comcast is **{{ }}** an open source protocol that eases the implementation of in-home authentication. Comcast participated in developing this protocol and is working with industry groups like the Cable and Television Association for Marketing ("CTAM") and the Open Authentication Technology Committee ("OATC").

- **TV-Connected Devices.** Comcast is exploring how to ease the authentication process for customers on TV-connected devices, like Apple TV, such as developing a technology

[12] *See* FCC RFI Response at 119-120

with programmers and their vendors that runs in the background of the app to store a customer's credentials.

With all of these developments and efforts under way, post-transaction, Comcast and TWC will learn from each company's practices and agreements around authentication and delivery platforms and will seek to adopt the best approach to benefit customers going forward.

D. The X1 Platform Does Not Exclude Third-Party Devices or Apps

As a preliminary matter, it is not clear why there would be any concern about whether Comcast includes apps on the X1 platform: legacy set-top boxes across the country have no Internet connectivity and therefore no Internet apps at all today, and this has never been deemed a problem. To be sure, X1-capable boxes have Internet connectivity, but there are only around **{{ }}** of them in the market today, or about **{{ }}**% of Comcast's installed base of set-top boxes and **{{ }}**% of all cable industry boxes deployed across the country.[13] Moreover, **{{ }}**% of deployed X1-capable boxes have the technical capability to support Internet-delivered apps – the remainder lack the memory, processor speed, and other technical characteristics to do so.

But in all events, the X1 is by no means a "gatekeeper" device that governs whether a customer can access particular apps. Like every other set-top box, X1-capable boxes can be used (and increasingly are used) in conjunction with smart TVs and other Internet-connected devices that themselves offer a variety of apps.[14] Thus, for example, if an X1 customer wants to access Netflix via his TV set, he can simply use the app provided on his TV to do so, or change the input on the TV to a connected game console, Blu-ray player, or other device that also includes the Netflix app. Comcast thus does not believe that the inclusion of apps directly on the X1 platform is competitively relevant in any way.

Furthermore, the notion of including authenticated TVE *programmer* apps on the X1 platform does not make sense because it is redundant. Comcast only authenticates the apps of programmers whose programming it carries as an MVPD. Thus, a customer using an X1-capable set-top box already receives all of the Comcast cable service programming to which she or he subscribes on that box, which would make the inclusion of TVE apps offering the very same programming superfluous. Put another way, there is no reason why a customer would ever have a need for a programmer's app on the X1, and no reason why a programmer would prefer that a Comcast customer watch its programming through an online app on the Comcast set-top box rather than through Comcast's cable service offering on that very same box.

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[13] *See* SNL Kagan Projection: Cable Set-Top Outlook Through 2018 (June 26, 2014).

[14] *See* Ian Olgeirson, *US Connected Device Outlook a Smorgasbord of Video Delivery*, SNL Kagan (Oct. 15, 2014) (noting that there are over 700 million Internet-connected devices in U.S. households today). Moreover, according to one analyst report, approximately half of all U.S. households have at least one television connected to the Internet either directly or indirectly through a separate Internet-connected device, a nearly 30% increase over the 38% in 2012. *See* Press Release, Leichtman Research Group, *49% of U.S. Households Have a TV Connected to the Internet* (June 6, 2014), http://www.leichtmanresearch.com/press/060614release html.

To the degree the question here is a broader one as to why Comcast has not opened up the X1 platform to a variety of other third-party *non-authenticated* apps – e.g., those of OVDs that are not part of its cable service – Comcast has simply not yet reached definitive views about the best direction for the platform. There are equipment and device makers in the marketplace, such as Roku and TiVo, that have selected various apps that fit with their offerings. But Comcast's research and meetings with others in the industry suggest that apps are no longer a main focus for providers of Internet-connected devices. For example, the Apple TV does not feature Apple's iTunes store and app platform.

Comcast is still shaping its own entry into this space. Comcast has experimented with some over-the-top apps to date and is considering others, but thus far, consumer interest for Internet apps on X1 has been very modest. For example, **{{ }}** (Pandora) has been used by **{{ }}**% of X1 customers,[15] and another over-the-top app was recently decommissioned for lack of use.[16] Comcast used the platform to offer an over-the-top NBC Olympics app and is considering apps from its programmers that would complement (rather than duplicate) their programming (e.g., by offering sports stats during a televised game). Comcast is also set to support a gaming app it has been trialing and is assessing whether – as well as how – to include other apps, including over-the-top video apps, on the platform.[17] In other words, although Comcast is actively considering the best direction for the X1 platform, its plans are still in development.[18]

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[15] *See* FCC Opposition and Response at 189-191; FCC RFI Response at 122-126.

[16] *See* FCC RFI Response at 122.

[17] There is substantial engineering required for apps to work on X1, including, among other things, integration of apps with Comcast's video service (for example, in content search capabilities). *See* FCC RFI Response at 125.

[18] It bears emphasizing that X1 is still a nascent platform, in which Comcast made a substantial investment (including an upfront investment of **{{ }}**) to develop.

Question No. 5

How do you respond to claims that provisions in Comcast's programming contracts, including MFNs, ADMs, and other windowing provision raise concerns by making it more difficult for OVDs and MVPDs to obtain content on favorable terms?

Response to Question No. 5

Comcast strongly disputes any suggestion that its programming contracts impede the ability of MVPD and OVD rivals to obtain access to programming on favorable terms. Instead, a review of Comcast's *actual agreements* should dispense with any misconception that these provisions pose competition concerns. Such a review confirms the following:

1. Comcast often seeks (but does not always obtain) reasonable "most favored nations" or "MFN" provisions which require that Comcast be treated in parity with respect to certain terms to other MVPDs, **{{ }}**. As explained below, the MFNs employed by Comcast are procompetitive because they (1) help control ever-rising programming expenses (and thereby mitigate price increases to consumers), (2) reduce transaction costs, and (3) encourage investments. Antitrust law and economic scholarship have long recognized these procompetitive benefits from MFNs. At a DOJ/FTC conference several years ago, David Gelfand (now Deputy Assistant Attorney General for Litigation at the Antitrust Division) noted that MFNs are a "common business practice" that "can, and do, often lower price."[1] Andrew Gavil, Director of the Federal Trade Commission's ("FTC") Office of Policy and Planning, also remarked on the procompetitive benefits of MFNs, including as a means to avoid becoming "a disfavored purchaser" on price.[2] The FTC even imposed an MFN as *required relief* for perceived anticompetitive harms arising out of another media merger in AOL/Time Warner.[3] Here, as discussed below, Comcast's MFNs are not only intended to lower programming costs, they have succeeded in doing so.

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[1] *See* Comments of David Gelfand, DOJ/FTC Workshop on MFN Clauses (Sept. 10, 2012), at 18, as reported in Panel Summaries from Am. Health Lawyers Ass'n, *available at* https://www.healthlawyers.org/Members/PracticeGroups/Documents/Benefits/PGs_ExSumm_MFN_Clauses.pdf.

[2] *See* Outline of Remarks by Andrew I. Gavil, Director, Office of Policy Planning, Federal Trade Commission (Sept. 2012), at 6, *available at* http://www.justice.gov/atr/public/workshops/mfn/presentations/286852.pdf.

[3] *See* Decision and Order, *FTC v. AOL/Time Warner*, No. C-3989 (Apr. 21, 2001), at 9, *available at* http://www ftc.gov/sites/default/files/documents/cases/2001/04/aoltwdo.pdf.

2. Consistent with all of this, the DOJ Consent Decree *expressly permitted* Comcast to seek MFNs to ensure that it is treated "in material parity" with other MVPDs.[4] The Antitrust Division recognized that such provisions are "reasonable and customary" and "enhance competition."[5] There is no reason to change that conclusion in connection with the current transaction.

3. Comcast may seek provisions relating to Internet distribution of content it licenses – these types of provisions are sometimes referred to as "alternative distribution methods" or "ADM" provisions. Comcast did not aggressively pursue such provisions even prior to the NBCUniversal proceeding, but the FCC Order and DOJ Consent Decree prohibited Comcast from seeking or enforcing all but the most anodyne of these provisions. Comcast has carefully complied with the Decree and will continue to do so post-merger. Comcast is unaware of any allegations that it has sought or enforced broader ADMs than permitted. And there is certainly no evidence that the very limited ADMs that Comcast has obtained have had any adverse effect on the rapid growth of OVDs, which appears to accelerate almost every day.

4. This issue is not transaction-specific. Comcast's transaction with TWC does not affect **{{ }}**, and there is no basis to conclude that Comcast will be able to obtain more (or more onerous) MFN or ADM provisions as a result of the transaction. NBCUniversal's experience as a programmer suggests quite the opposite, **{{ }}**.[6]

5. OVDs also have substantial bargaining power themselves **{{ }}**. Unlike Comcast, Netflix licenses certain programming exclusively – preventing both OVDs and MVPDs from distributing it during the same window in certain media. **{{**

[4] Modified Final Judgment, *United States v. Comcast Corp.*, No. 1:11-cv-00106-RJL (D.D.C. Aug. 21, 2013) ("DOJ Consent Decree"), V.C.3, *available at* http://www.justice.gov/atr/cases/f300100/300146.pdf.

[5] *See* Competitive Impact Statement at III.A, *United States v. Comcast/NBCUniversal*, Case: 1:11-cv-00106, January 18, 2011, *available at* http://www.justice.gov/atr/cases/f266100/266158.htm.

[6] *See* Comcast Response to the Federal Communications Commission's Request for Information Issued to Comcast Corporation on August 21, 2014 ("FCC RFI Response"), at Exhibit 22.1 And Comcast's production of documents contains numerous examples of other MVPDs seeking MFNs in negotiations with Comcast-owned networks. *See id.*; *see also, e.g.*, COMC-BOM-00021018 (**{{ }}**); COMC-BOM-00023589 (**{{ }}**); COMC-BOM-00022112 (**{{ }}**).

[7] *See* COMC-MAF-00046144.

}}.[8]

Given OVDs' evident bargaining power, it seems very unlikely that the proposed transaction will somehow give Comcast the power to impose contractual provisions that hinder licensing to OVDs. Programmers would be very unlikely to agree to such provisions given the billions of dollars they currently receive from OVDs.

6. To the extent that the one has concerns about the use of these provisions, the proposed transaction should *mitigate*, rather than accentuate, those concerns because of the NBCUniversal Conditions.[9] Comcast believes that experience has demonstrated that these restrictions are not necessary. Nevertheless, it is a fact that the acquisition will extend those restrictions to the systems obtained from TWC and Charter.

A. <u>Comcast Uses MFNs in a Reasonable and Procompetitive Fashion</u>

1. Comcast's Typical MFNs

Comcast typically seeks "plain vanilla" MFNs in its affiliation agreements, which have the purpose and effect of ensuring that Comcast obtains the benefits of more favorable terms that programmers may later give to other MVPDs. The object of this kind of MFN is not to *disadvantage* other MVPDs (most of which are not even Comcast's competitors) but simply to ensure that Comcast obtains *equal* terms to theirs. An example is illustrative. In a Comcast agreement with a major programmer, the rate MFN provides in relevant part that:

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}}[10]

Comcast's MFNs **{{**

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[8] *See id.* at COMC-MAF-00046223.

[9] DOJ Consent Decree V.B (limiting Comcast's ability to strike deals with programmers that contain limitations on the ability to provide OVDs with content); *see Applications of Comcast Corp., Gen. Elec. Co. and NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licenses*, Memorandum Opinion and Order, 26 FCC Rcd. 4238, 4355 App. A (2011) ("FCC Order" and, together with the DOJ Consent Decree, the "NBCUniversal Conditions"), App. A. IV.B.3 (same), *available at* https://apps.fcc.gov/edocs_public/attachmatch/FCC-11-4A1.pdf. Comcast will acquire systems from each of Time Warner Cable and Charter. While Comcast has not yet reviewed the programming agreements for these distributors, neither operates under the conditions that Comcast currently does.

[10] *See* COMC-DAA-00019385 at 94.

}}[12]

{{

}}. Comcast pays very high licensing fees for access to all of a network's current season content and does not want to be disadvantaged vis a vis other distributors. If the programmer is prepared to share additional current season content with other distributors (for example, for VOD purposes), Comcast wants its subscribers to have equal access to that content. This does not prevent a programmer from licensing its content to other distributors – it merely ensures that Comcast's customers have equal access to content for which they have already paid.

Such provisions are typical throughout the industry. As noted, they are expressly permitted by the NBCUniversal Conditions.[13]

2. No Evidence of Competitive Harm

Comcast is aware of no evidence that its use of MFNs is having any anticompetitive effect on its actual or purported rivals. Comcast's MVPD competitors appear to be competing very effectively, and there has been no suggestion that, but for the MFNs, Comcast's rivals would be obtaining lower prices or otherwise superior terms than they do currently. Instead, Comcast Cable has steadily lost video subscribers in recent years, while rival MVPDs, including both telecommunication and DBS providers, have rapidly grown.[14] There can be no credible claim that Comcast has forced these competitors into unfavorable programming arrangements that have limited their ability to compete.[15]

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[11] *See id.*, at COMC-DAA-00019395.

[12] *See, e.g.*, COMC-UCM-00003781 at 88 (**{{**

}}).

[13] *See* DOJ Consent Decree V.B; FCC Order App. A. IV.B.3.

[14] *See* Table 1 in Comcast Response to Question No. 1 (demonstrating that telco providers like AT&T and Verizon have gained 11.3 million subscribers and DBS providers have gained 7.2 million subscribers since 2005); Comcast's video subscriber numbers have experienced a year-to-year decrease each year from 2008 to present, going from a high of 24.2 million in 2008 (Comcast Corp., Annual Report (Form 10-K) (Feb. 20, 2009)) to 21.7 million in 2013 (Comcast Corp., Annual Report (Form 10-K) (Feb. 12, 2014)).

[15] Further, to the extent that small local providers are considered a competitor to Comcast, **{{**

(….continued)

Indeed, these rivals typically seek out MFNs of their own. For example, **{{**

}}.[16]

The case for harm to OVDs is even more remote. Comcast's **{{**

}}. In practice, this means that Comcast MFNs *are not implicated* when a network or studio enters into a licensing deal with an OVD for discrete programming content or library content, which is how OVDs such as Netflix and Amazon Prime generally acquire programming.[17]

For example, **{{**

(continued….)

}}. *See* COMC-NIM-00031965 at 76 (**{{** **}}**); COMC-UCM-00003781 at 87 (**{{** **}}**).

[16] *See* FCC RFI Response at Exhibit 22.1; *see also* COMC-LSD-00004841 (six-page MFN provision, including an "MFN on MFN" requiring NBCUniversal to provide a major MVPD with the benefit of the most favorable economic MFN term NBCUniversal has agreed to include in other MVPD distribution agreements).

[17] *See* Ex Parte Letter from Kathryn A. Zachem, Comcast Corp., to Marlene H. Dortch, Federal Communications Commission (Oct. 16, 2014) (subject to Modified Joint Protective Order in MB Docket No. 14-57), at 5.

[18] *See* COMC-DAA-00019385 at 92-94 (defining "Comparable Provider" to include "Facilities Based Systems, DBS and/or RBO/telco" and certain non-"Facilities Based Systems"); *id.* at COMC-DAA-00019399 (defining "Non-Facilities Based Distribution" and "Digital MVPD" as the distribution of linear networks or broadcast signals "over broadband, the open internet, or other distribution system that is not owned or controlled by such distributor (e.g., over the top on-line distribution)"); *id.* at COMC-DAA-00019410 (excluding "delivery via the open internet" from definition of "Facilities Based Systems").

[19] *See* COMC-UCM-00003781 at 86-87. Similar limitations exist in Comcast's agreements with another major programmer. *See, e.g.*, COMC-UCM-00008193 at 264 (MFN only applies to online distribution if Comcast is distributing programming "by the same distribution technology").

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Comcast understands that some OVDs, including Sony, are seeking to license and distribute linear content in order to create an "MVPD-like" online service. To the degree such OVDs license and distribute content similarly to MVPDs, it is logical to apply to them contract terms, including certain MFN protections, that are applicable to MVPDs. Comcast is aware of no evidence that its MFNs are impeding in any way licensing to linear OVDs like Sony. To the contrary, Sony has succeeded in reaching licensing agreements with a number of large programmers, including CBS, Viacom, and NBCUniversal.[20]

3. MFNs Yield Procompetitive Benefits

MFN terms are procompetitive and benefit consumers for a number of reasons. Most obviously, the MFN clauses in Comcast's affiliation agreements help ensure that Comcast and its subscribers benefit from the best possible prices for programming. Video programming expenses are, by far, the largest variable cost that Comcast incurs, accounting for more than $9 billion in 2013 alone. These video programming costs have been increasing at a pace well above inflation (approximately 10% per year over the last decade). Comcast has generally increased retail cable rates more slowly than wholesale programming costs, but Comcast has had to pass along a portion of these rate increases on to customers.[21] MFNs can help to reduce programming rates and therefore reduce retail cable rates paid by customers.[22]

Comcast **[[**

[20] *See* Todd Spangler, *Viacom Inks Pact with Sony for Internet TV Service*, Variety (Sept. 10, 2014), http://variety.com/2014/digital/news/viacom-inks-pact-with-sony-for-internet-tv-service-1201302566/; Daniel Frankel, *Sony adds CBS and Discovery for OTT service*, Fierce Cable (Nov. 4, 2014), http://www fiercecable.com/story/sony-adds-cbs-and-discovery-ott-service/2014-11-05.

[21] Such price increases are typical across all programmers. In order to conclude that MFNs serve to increase prices, one must believe that but for MFN provisions, programmers would be eager to charge lower prices for their programming. That is completely at odds with the real-world evidence that programmers routinely seek very large price increases for their programming year over year.

[22] *See generally Verizon Comms. Inc. v. Fed. Comms. Comm.*, 535 U.S. 467, 509 (2002) (acknowledging that reduction of marginal cost results in downward pricing pressure and price reductions); *City of New York v. Group Health Inc.*, 649 F.3d 151, 157 n.2 (2d Cir. 2011) (same); *see also* Outline of Remarks by Andrew I. Gavil, Director, Office of Policy Planning, Federal Trade Commission, *available at* http://www.justice.gov/atr/public/workshops/mfn/presentations/286852.pdf; *AT&T Inc. and T-Mobile*, Staff Analysis and Findings, 26 FCC Rcd. 16184, 16189 (adopted Nov. 29, 2011) ¶ 7, *available at* https://apps.fcc.gov/edocs_public/attachmatch/DA-11-1955A2.pdf (noting that marginal cost reductions create "downward pricing pressure").

]].[23] Comcast estimates that **[[**

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MFNs also serve the procompetitive benefit of reducing transaction costs and uncertainty. Affiliation agreements between MVPDs and programmers are typically very long and detailed arrangements – often amounting to hundreds of pages – that cover many different contingencies and eventualities.[24] Such affiliation agreements are often negotiated over months, if not years, and thus require significant investments of time and expertise. Moreover, it can be difficult to draft long-term contracts with precision and certainty given rapid changes in distribution technologies. MFNs help provide Comcast with some protection against unforeseen market developments (e.g., new technology additional rights), which allows for finalizing what are already complicated arrangements. Without MFNs, affiliation agreements would need to be even more detailed and still could not reliably address all future developments. In this manner, MFNs efficiently allow for finalizing contracts in the face of potential uncertainty regarding future developments. Or, as put by David Gelfand, MFNs "are simply an efficient way to get the best deal possible without spending time on the contract and moving on to deals that may be more important to the company."[25]

MFNs also encourage Comcast to invest in providing carriage to programming services while reducing the risk in doing so. Programming contracts tend to be long-term agreements (extending many years into the future).[26] This is desirable, as it gives all parties a degree of certainty about their business and permits more reliable projections and planning. MFNs help "future proof" agreements in the face of marketplace uncertainty and encourage the parties to reach agreements in the first instance. For example, MFNs allow for technological innovations – such as TV Everywhere ("TVE") and other digital distribution innovations – to be incorporated into long-term programming agreements in "real time" as they reach the marketplace. In the absence of MFNs, these procompetitive benefits could be lost.

MFNs are also one of the best contractual mechanisms that Comcast has to allow its relationships with networks to grow and adjust to new technology or other marketplace developments without having to inefficiently negotiate every new issue prior to renewal discussions. This provides customers earlier access to functionality and content. Once a network decides what its strategy is with respect to a new platform or business model, an MFN

[23] FCC RFI Response, Exhibit 35.

[24] *See, e.g.*, *supra* n.10.

[25] *See* DOJ/FTC Workshop on MFN Clauses (Sept. 10, 2012), at 20 *as reported in* Panel Summaries from Am. Health Lawyers Ass'n, *available at* https://www.healthlawyers.org/Members/PracticeGroups/Documents/Benefits/PGs_ExSumm_MFN_Clauses.pdf.

[26] *See generally* FCC RFI Response, Exhibit 33.1. With renewal provisions, agreements may last a decade or more.

on such terms allows Comcast's customers to have the benefit of that decision prior to the next contract negotiation, which may be years away.[27]

MFN provisions also give Comcast confidence to enter into long-term arrangements with new networks. Networks get the benefit of rate certainty and carriage certainty over time, and Comcast gets the benefit of insurance against having paid too much for programming before the marketplace settles on what the right price for the programming is, or before the network settles on what rights it may confer on distributors for VOD, TVE, etc.[28]

4. Comcast's MFNs Are Unlike Any Previously Challenged

Comcast is unaware of any case holding that MFNs of the type it enters into have been found to violate the antitrust laws. MFNs are not inherently suspect, and the rare occasions that MFNs have been successfully challenged are entirely distinguishable, as each required some "plus factor" beyond a mere MFN in order to justify finding an anticompetitive effect. In *Apple e-Books*, for example, the district court characterized the MFNs at issue as "unique," and, indeed, they were held to have functioned not as standard MFNs but as mechanisms to enforce a horizontal price-fixing conspiracy among e-book suppliers.[29] There is no suggestion (nor can there be) that Comcast uses its MFNs to coordinate competitive decision-making with any other MVPD.

In *Blue Cross Blue Shield of Michigan*, the DOJ brought suit against a defendant insurer that had standard MFN provisions, but those clauses had demonstrable anticompetitive effects because the institution of the MFN provisions had caused hospitals to raise rival insurers' rates. Blue Cross also had "MFN plus" provisions that prevented its competitors from negotiating hospital prices that were closer to Blue Cross's prices. And for both sets of clauses, Blue Cross had agreed to pay a surcharge for hospital services in exchange for MFNs.[30] Here, there is no evidence that Comcast has employed MFNs in a manner that raises rivals' costs to supracompetitive levels.

Likewise, in *United States v. American Express Co.*, the DOJ and various states brought suit against numerous credit card companies that had imposed strict policies on merchants to prevent them from promoting or encouraging their customers, through discounts or other incentives, to use a competing credit card with lower card-acceptance fees.[31] But, there is no

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[27] *See* Opposition at 169-70.

[28] *Id.*

[29] *See* Opinion and Order at 48, *United States v. Apple, Inc.*, No. 1:12-cv-02826-DLC (S.D.N.Y. July 10, 2013).

[30] *See* Complaint, *United States v. Blue Cross Blue Shield of Michigan*, No. 2:10-cv-14155-DPH-MKM ¶¶ 6, 18, 33 (E.D. Mich. Oct. 18, 2010).

[31] *See* Complaint, *United States v. American Express Co.*, No. 1:10-CV-04496-NGG-CLP (E.D.N.Y. Oct. 4, 2010).

evidence here that Comcast utilizes MFNs to prevent or penalize programmers from offering discounts or other incentives to other distributors. Comcast has no interest in preventing programmers from offering superior rates to MVPDs; instead, like other MVPDs, it is only interested in receiving the best programming rates for itself and its customers.

Consistent with this, Comcast notes that its enforcement of its MFNs and related provisions is generally conducted through Comcast's programming partners "self-policing" their MFN provisions. While Comcast may raise questions with a programmer about its MFN rights when there is a highly visible marketplace development that may trigger the MFN in question, **[[ ]]**, Comcast typically relies on programmers to honor their obligations and present Comcast with an "MFN offer" if and when programmers believe that an MFN has been triggered. This "enforcement" further indicates the absence of any anticompetitive intent on the part of Comcast, as it generally relies on its programming partners to self-police their MFN obligations, and demonstrates that Comcast's priority is to maintain long-term, amicable, and collaborative relationships where both Comcast and its programming partners honor their obligations and together improve customer experiences.[32]

B. Comcast Uses ADMs in a Reasonable and Procompetitive Fashion

Comcast sometimes seeks limited provisions in its carriage agreements relating to "alternative distribution methods" or "ADMs." ADMs involve the distribution of video programming through means other than traditional MVPD services (e.g., streaming over the Internet). The NBCUniversal Conditions generally prohibit Comcast from seeking ADM provisions. Comcast is only permitted to seek ADM provisions that limit online video distributors from distributing content *for free* over the Internet within (at most) 30 days of such content's initial air date by Comcast or on a paid basis for 14 days. Comcast has carefully complied with the NBCUniversal Conditions and is aware of no allegation that it has sought or enforced any ADM provision inconsistent with them.

The object and effect of Comcast's (very limited) ADM provisions are not to prevent OVDs from accessing programming, but merely to ensure that Comcast's investment in "first-run" video programming is not undermined by the same programming becoming available for free during the same window. Programmers remain free to license distribution of the same content as provided to Comcast over the Internet (via their own websites or via third-party OVDs) simultaneously with the content's initial air date, as long as the distributor *charges* for such distribution. Empirical evidence confirms that Comcast's contracting practices are not impeding the rapid growth of OVDs or preventing them from acquiring content.

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[32] *See* Ex Parte Letter from Kathryn A. Zachem, Comcast Corp., to Marlene H. Dortch, Federal Communications Commission (Oct. 16, 2014) (subject to Modified Joint Protective Order in MB Docket No. 14-57), at 5.

1. No Harm to Competition

Real-world, empirical evidence supports the conclusion that ADMs are not impeding OVDs from "obtain[ing] access to programming on favorable terms," nor, for that matter, are ADMs competitively disadvantaging OVDs in any manner. In fact, over the last five years, OVDs have grown exponentially, and new OVDs are still emerging.[33] Netflix, for example, now has more than 37 million U.S. subscribers (more than 50 million worldwide), many millions more than Comcast or any other MVPD.[34] Amazon Prime (approximately 27 million subscribers) and Hulu (more than 5 million subscribers) are very substantial OVDs as well that, like Netflix, are able to offer evidently competitive slates of programming.[35] These slates include, with increasing frequency, exclusive programming that MVPDs are unable to license themselves, such as prior seasons of current television programs and exclusive new content, such as popular programs *Orange Is the New Black* and *House of Cards*.[36] It is therefore unsurprising that in its filing with the FCC opposing this deal, Netflix did not list the effects of ADM provisions (or MFNs, for that matter) among its complaints against Comcast.

Nor could it or other OVDs plausibly do so. Not only does Comcast not prevent OVDs from obtaining valuable programming, Comcast/NBCUniversal *provides* valuable programming to OVDs. In 2013, for example, Comcast/NBCUniversal was paid nearly **{{ }}** in licensing fees for providing programming to OVDs, including, for example, Netflix, Amazon, Apple, and Hulu, as well as smaller OVDs.[37]

Indeed, if anything, *it is OVDs* (not Comcast) that are engaging in contracting practices that impede the ability of MVPD and OVD rivals to obtain access to programming on favorable terms. Netflix and Amazon Prime, for example, both license certain content on an exclusive

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[33] *See* FCC RFI Response at 31-45. Additionally, HBO and CBS have each recently announced that they will offer their programming via the Internet as stand-alone products, though details of the potential products are still limited.

[34] Due to its size and the popularity of its programming offering, Netflix accounted for approximately 34% of all peak-period Internet download traffic in North America as of May 2014.

[35] *See* Sarah Perez, *Hulu, Now With 6 Million Subscribers, Will Make Some TV Episodes Free on Mobile*, Tech Crunch (April 30, 2014), *available at* http://techcrunch.com/2014/04/30/hulu-now-with-6-million-subscribers-will-make-some-tv-episodes-free-on-mobile/ (Hulu subscribers). While Amazon does not publicly report the number of Amazon Prime subscribers, public news accounts have approximated the number of subscribers at 27 million. *See* Todd Bishop, *Amazon Says Prime Subscriptions Growing 'Very Nicely' Despite Price Increase*, GeekWire (July 24, 2014), *available at* http://www.geekwire.com/2014/amazon-prime-subscriptions-growing-nicely-despite-price-increase/.

[36] Comcast has no deals with any programmer that prohibits them from licensing content on an exclusive basis to an online distributor (or, for that matter, to a traditional distributor).

[37] *See* FCC RFI Response Exhibit 19.5(a).

basis – and MVPDs or other OVDs cannot access this content during the same window.[38] **{{** **}}**.[39] The effect of these provisions is either **{{** **}}** or a "blackout" where certain programming is unavailable to consumers through any outlet for most of the current season.

It is also worth noting that the premise of this question – that OVDs are "rivals" – is overstated. While OVDs may increasingly compete with certain aspects of an MVPD's business – e.g., EST and SVOD offerings – OVDs themselves agree that their services are generally complementary to MVPDs' services and are not complete competitive substitutes for the vast majority of Comcast's linear television customers.[40] In addition to providing another outlet (and revenue source) for Comcast/NBCUniversal-owned networks, OVDs are also complementary to Comcast's broadband business and enhance the value of Comcast's Internet access products. OVDs offering popular content helps to convince existing Internet customers to continue to utilize Comcast's broadband service and incentivize new Internet customers to choose Comcast. Comcast gains a significant portion of its revenue through providing high-quality broadband service, the demand for which is increased by OVDs.[41] Even if Comcast/NBCUniversal somehow did harm an existing or potential OVD through ADM provisions, the beneficiaries would in all likelihood be competitor OVDs, which are obviously much closer substitutes for an OVD service than Comcast's MVPD service is.

2. Procompetitive Benefits

The ADM provisions used by Comcast are expressly permitted by the NBCUniversal Conditions. As the Antitrust Division explained at the time, the Consent Decree "strikes a balance by allowing reasonable and customary exclusivity provisions that enhance competition

[38] *See* COMC-MAF-00046144 at 217 (**{{** **}}**); Maggie McGrath, *Streaming Video Showdown: Is Amazon Or Netflix The Better Bet For Stockpickers?*, Forbes (May 6, 2014), http://www.forbes.com/sites/maggiemcgrath/2014/05/06/in-the-streaming-showdown-between-amazon-and-netflix-which-is-the-better-long-term-play/.

[39] *See* COMC-MAF-00046144 at 223 (**{{** **}}**).

[40] Netflix itself has commented: "In the USA, MVPDs have remained stable at about 100M subscribers while Netflix has grown to over 36M members. The stability of the MVPD subscriber base, despite Netflix's large membership, suggests that most members consider Netflix complementary to, rather than a substitute for, MVPD video." *See* Netflix Long Term View, *available at* http://ir netflix.com/long-term-view.cfm.

[41] To be sure, OVDs do increasingly compete with Comcast's (and other MVPDs') VOD and electronic sell-through ("EST") services, although most OVDs do not typically offer the same programming that is available through Comcast's VOD and EST services.

while prohibiting those provisions that, without any offsetting procompetitive benefits, hinder the development of effective competition from OVDs."[42]

The ADM provisions used by Comcast are procompetitive and beneficial to consumers. Providing carriage to programmers requires Comcast to make a substantial outlay in programming fees and to efficiently allocate limited bandwidth. Such carriage provides a substantial benefit to the programmer, as it helps a programmer build an audience. It would obviously not make any business sense for Comcast to make substantial investments in "first-run" video programming if it were possible for that *same programming* to be distributed to consumers at the same time for *free* by a distributor in competition with Comcast. In that manner, ADMs encourage Comcast to invest in carrying programming (as well as improving infrastructure) in the first place and discourage "free riding" on those investments.

There is no evidence that Comcast has received or even sought ADMs that do anything beyond what supports the procompetitive benefits of exclusivity and prevents free riding without hindering OVDs. In fact, Comcast is somewhat hamstrung in comparison to OVDs, which *can* offer "exclusives" and foreclose Comcast's and other MVPDs' access to programming over long periods of time, so this concern seems misplaced.

In any event, Comcast is already limited in its ability to enter into ADM provisions, and these conditions will apply to the newly acquired systems. This more than answers any transaction-specific theory of harm. And to the degree that one is concerned about the effects of these provisions generally, Comcast notes that, to the degree that Time Warner Cable has been a source of ADM provisions that go beyond the limitations applicable to Comcast, the Transaction would serve to give programmers more leeway to explore alternative distribution methods. In addition, unlike related clauses that the antitrust agencies have challenged in the past, which involved multi-year agreements, the ADM provisions here have only a short, 30-day window.

C. <u>Conclusion</u>

In sum, the MFN and ADM provisions in Comcast's programming agreements do not raise any transaction-specific harms and, in any event, also raise no credible antitrust concerns. Any theoretical issues with such clauses were investigated and resolved during the Comcast-NBCUniversal transaction, and there is no evidence suggesting that any further action is warranted here.

[42] *See* Competitive Impact Statement, *United States v. Comcast/NBCUniversal*, Case: 1:11-cv-00106, January 18, 2011, *available at* http://www.justice.gov/atr/cases/f266100/266158.htm.

<u>Question No. 6</u>

What is Comcast's updated assessment of the efficiencies the merger is likely to create? How are these efficiencies merger-specific and verifiable and to what extent will they be passed on to consumers?

<u>Response to Question No. 6</u>

Comcast reaffirms the numerous transaction-specific efficiencies related to its acquisition of Time Warner Cable ("TWC") laid out in its response to the Commission's Requests for Information ("RFI"), filed on September 11, 2014, and its Opposition to Petitions to Deny and Response to Comments, filed on September 23, 2014.[1] These efficiencies include:

- operating and capital expenditure efficiencies, which involve the elimination of duplicative network expenses and corporate overhead, along with procurement savings;
- scale efficiencies, which involve spreading large fixed-cost investments (particularly in network upgrades and new products and services) over a larger base of customers;
- geographic scope efficiencies, which involve combining the Comcast and TWC footprints to provide enhanced competition, particularly in business services and advertising; and
- "know how" efficiencies, which involve the sharing of complementary expertise and experience, particularly with respect to TWC's all-digital conversion.

The proposed divesture transactions involving Charter are not expected to affect the efficiencies related to the TWC transaction and should result in additional transaction-specific efficiencies by filling in contiguous service areas in Comcast's footprint. This geographic rationalization should generate additional operating efficiencies, providing Comcast with greater scale to purchase advertising on regional television platforms and enabling it to be a more robust competitor in both the residential and business markets.

The efficiencies identified in these transactions are well-established, transaction-specific, and independently verifiable. They will benefit Comcast's residential and business customers, as well as advertisers, across its footprint. Comcast has been involved in integration planning efforts since the deals were announced and has set out a specific roadmap for achieving each of the identified efficiencies. Comcast continues to analyze and develop more detailed plans to

[1] *See* Comcast Response to the Federal Communications Commission's Request for Information Issued to Comcast Corporation on August 21, 2014 ("FCC RFI Response") at 215-27; Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, MB Docket No. 14-57, ("FCC Opposition and Response") at 80-83.

achieve the projected efficiencies. In preparation for the integration with TWC, Comcast has dissected each business area, synergy target, and key project, and has created and updated projected timelines for each project's completion.[2] This process is ongoing. Moreover, Comcast has a proven track record of achieving transaction-specific efficiencies in prior cable acquisitions – most notably in the AT&T Broadband and Adelphia transactions – integrating and upgrading cable systems to the benefit of its customers.

A. <u>The TWC Transaction Will Create Merger-Specific, Verifiable Efficiencies</u>

The proposed transaction between Comcast and TWC will bring important benefits to consumers and businesses nationwide by accelerating investment in and the rollout of advanced video, high-speed data, and digital voice services, such as Comcast's X1 video service and greater Internet speeds (in part, through a faster transition to all-digital); facilitating greater investment in Comcast's and TWC's combined network through scale; generating substantial operating efficiencies and cost savings; and enhancing competition for small, medium, and large businesses.[3]

1. Operating and Capital Expenditure Efficiencies

Comcast continues to expect that, by the third year after the transaction's close, the operating efficiencies resulting from the proposed transaction with TWC will total approximately $1.5 billion and will recur at or above this level each year thereafter. Comcast expects to achieve

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[2] *See* COMC-COM-00042897 at 8-13, 15-20, 22-39, 41-48, 50-54, 56-59, 61-64, 66-67, 69-70, 72-74.

[3] Exhibit A to this response lists the major efficiencies of the proposed transaction and the expected beneficiaries. The table also describes the timing, merger specificity, relevant economic theory, and verifiability of each efficiency.

For an in-depth discussion of the efficiencies the merger is likely to create, *see also* Applications and Public Interest Statement of Comcast Corporation and Time Warner Cable Inc., at 23-28, MB Docket No. 14-57 (Apr. 8, 2014) ("Comcast-TWC Public Interest Statement"); Applications and Public Interest Statement of Comcast Corporation and Time Warner Cable Inc., Exhibit 5, Declaration of Gregory L. Rosston and Michael D. Topper ¶¶ 41-83, MB Docket No. 14-57 (Apr. 8, 2014) ("Rosston/Topper Decl."); Applications and Public Interest Statement of Comcast Corporation and Time Warner Cable Inc., Exhibit 6, Declaration of Mark A. Israel ¶¶ 106-109, MB Docket No. 14-57 (Apr. 8, 2014) ("Israel Decl."); Applications and Public Interest Statement of Comcast Corporation and Time Warner Cable Inc., Exhibit 4, Declaration of Michael J. Angelakis ¶¶ 6-11, MB Docket No. 14-57 (Apr. 8, 2014) ("Angelakis Decl."); Public Interest Statement of Charter-to-Comcast Exchange at 5-12, MB Docket No. 14-57 (June 5, 2014); Supplemental Declaration of Gregory L. Rosston and Michael D. Topper ¶¶ 9-19, MB Docket No. 14-57 (June 4, 2014) ("Rosston/Topper Supplemental Decl."); Public Interest Statement of Comcast-to-Charter Sale and Exchange at 7-17, MB Docket No. 14-57 (June 5, 2014); Public Interest Statement of SpinCo at 8-19, MB Docket No. 14-57 (June 4, 2014); Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments at 80-83, MB Docket No. 14-57 (Sept. 23, 2014) ("Opposition and Response"); Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, Exhibit 1, Reply Declaration of Mark A. Israel ¶¶ 208-222, MB Docket No. 14-57 (Sept. 23, 2014) ("Israel Reply Decl."); Comcast Corporation and Time Warner Cable Inc., Opposition to Petitions to Deny and Response to Comments, Exhibit 2, Reply Declaration of Gregory L. Rosston and Michael D. Topper ¶¶ 14-18, MB Docket No. 14-57 (Sept. 20, 2014) ("Rosston/Topper Reply Decl.").

50% of this total in the first year after closing and an additional 25% in both year two and year three.[4] The operating efficiencies fall into three categories:

1. Corporate Overhead: The transaction will reduce the aggregate amount of overhead currently spent by Comcast and TWC in many duplicative areas that are related to corporate staff and operational functions. By consolidating such functions and services within a single corporate management structure, the combined company should realize approximately **{{ }}** million in expense efficiencies for corporate and operational overhead over a three-year period.

2. Cable Operations: The integration of Comcast's and TWC's cable operations will also contribute to these operating efficiencies. Eliminating duplicative networks, assets and functions, and creating, for example, one backbone and one content delivery network, will yield approximately an additional **{{ }}** million in operating expense efficiencies over a three-year period.

3. Programming Costs: The remaining **{{ }}** million in operating expense efficiencies are expected to come from savings on programming costs over a three-year period, to the extent and at such time as more favorable rates and terms in some of Comcast's programming agreements supersede some of TWC's existing contracts.[5]

In addition to the operating efficiencies described above, Comcast expects that the merger will result in approximately $400 million in savings in capital expenditures – around 10% of TWC's total anticipated expenditures in 2014.[6] The merger will allow the combined company to purchase network and customer equipment, such as fiber-optic cable, software, and modems in larger quantities, likely resulting in lower per-unit cost. At the same time, the transaction will provide greater scale, which will make more capital expenditures profitable due to the ability to generate a greater return over a larger footprint.[7]

By definition, these operating and capex efficiencies are transaction-specific.[8] They will be felt in all relevant markets and are expected to be passed through to subscribers in the form of lower prices and higher quality, as explained further in Section D *infra.*

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[4] *See* Angelakis Decl. ¶ 7.

[5] *See* Angelakis Decl. ¶ 7c. These programming synergies could be higher or lower depending on the specifics of the actual programming agreements. Over time, more programming synergies could be achieved through, for example, aligning the TWC tiering and packages with those offered by Comcast, or by factors such as Comcast's use of dynamic ad insertion or other measures that create value for programmers.

[6] *See* Angelakis Decl. ¶ 8.

[7] *See infra* Section A.2.

[8] *See* U.S. Dep't of Justice & Federal Trade Comm'n, *Horizontal Merger Guidelines* § 10 (2010) ("[E]fficiencies resulting from shifting production among facilities formerly owned separately, which enable the (….continued)

2. Economies of Scale

Through greater scale, the transaction will allow the combined company to justify greater investments in new products and services. This additional customer base and scale increases the incentive to invest and take risks in developing innovative products and services, as the returns are likely to be greater.[9] Comcast, which employs more than 1,000 engineers and developers, needs to continue to invest in advanced technologies and in developing and improving innovative products and services. The bulk of Comcast's approximately $1 billion in annual spending on intangible assets is devoted to software research, development, and deployment. Indeed, content providers have noted that the increased scale from the proposed transaction will likely result in new technological options for content on different platforms and through more services.[10]

There are several examples of how the proposed transaction will lead to economies of scale in developing and deploying technologies and services, which will allow Comcast to bring innovative services to its customers. One such example is Comcast's investment in its advanced X1 platform.[11] Comcast made a large upfront investment of **{{ }}** to develop the X1 platform, most of which involved fixed research and development costs.[12] Notwithstanding this substantial investment, Comcast could not fully make the initial investments necessary to develop all of the features and services it wanted to provide to video customers. Consequently, Comcast had to wait almost two years after the launch of X1 to begin deploying the IP video

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(continued….)

merging firms to reduce the incremental cost of production, are more likely to be susceptible to verification and are less likely to result from anticompetitive reductions in output.").

[9] *Id.* ("When evaluating the effects of a merger on innovation, the Agencies consider the ability of the merged firm to conduct research or development more effectively.").

[10] This may result in lower affiliate fees as programmers benefit from more ways to monetize their content. Philippe Dauman, Viacom CEO: "[W]e welcome what Comcast had said about investing in its platform, providing more revenue opportunities with its consumers, investing in the capital infrastructure both in its own systems and the newly acquired system because . . . what is of highest importance to us is to make sure our content is available ubiquitously on different platforms in a measured way." Philippe Dauman, CEO, Viacom, Inc., Deutsche Bank Media, Internet & Telecom Conference, Tr. at 10 (Mar. 10, 2014); David Zaslav, Discovery Communications President and CEO: "Comcast is a great company. If they're successful in bringing this deal to the finish line, I'm sure that they'll do a great job in offering a lot of different products to consumers to consume content, including TV Everywhere where they're a leader, and that will be advantageous for us." David Zaslav, President & CEO, Discovery Communications, Inc., Q4 2013 Earning Call, Tr. at 11 (Feb. 13, 2014).; Charles Carey, 21st Century Fox President: "[T]here may be some positive [consequences from cable consolidation] . . . new digital platforms in over the top players may grow even more quickly with a consolidated distribution industry." Charles Carey, President, 21st Century Fox, Inc., Q2 2014 Earnings Call, Tr. at 6 (Feb. 6, 2014).

[11] Other examples of how the proposed transaction will lead to economies of scale and allow new investments that directly benefit consumers include facilitating investments in developing applications for third-party devices and Comcast's fixed-cost investment in creating metadata for its video programming assets. *See* Rosston/Topper Decl. ¶¶ 92-93.

[12] *See* Rosston/Topper Decl. ¶ 87.

platform.[13] Had Comcast had greater scale at the time of X1's initial development and launch, it could have justified making a larger investment, brought the technology to market sooner, included more features and functionality to the release, or invested in IP video technology to speed up the transition to full IP.[14]

Post-transaction, Comcast expects to roll out X1 throughout TWC's footprint, providing the full X1 product experience (X1, full VOD, TVE apps, and EST) in the first major markets within 12 months and all markets within **[[ ]]** months. A similar platform in TWC's footprint would not be available as quickly or efficiently in the absence of the transaction, as the cost of developing and rolling out such a platform on a similar timeline would be prohibitive for TWC. To be sure, Comcast has explored licensing arrangements to enable unaffiliated companies to use X1 technology, but those efforts have been time-consuming and faced substantial challenges common to arm's-length collaboration, such as infrastructure limitations and differences over investment objectives and future development.[15] Separate firms maintain separate incentives and separate agendas, which make collaboration difficult, especially for the high-cost investment opportunities for which scale benefits are critical.[16]

The additional scale afforded by the transaction will encourage investments and thus also accelerate the deployment, measurement, and uptake of advanced advertising services such as dynamic ad insertion and addressable advertising.[17] For example, post-transaction, there is the potential for quicker deployment of improved measures of viewing that could create significant incremental revenue for content providers and, as a result, potentially increase free content for consumers, as programmers are more likely to achieve additional surplus ad revenue through viewership. In this manner, these advertising technologies help not only advertisers but programmers and viewers as well. Comcast has already set out a timeline of launching new, more enhanced advertising capabilities (including VOD dynamic ad insertion, targeting capabilities, STB data integration, and Strata tools) within **[[ ]]**.[18] Moreover, the rollout of advanced advertising services in the TWC territory is expected to follow **[[ ]]**.[19]

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[13] *Id*.

[14] *See* Rosston/Topper Decl. ¶¶ 87-89; *see also* Angelakis Decl. ¶ 14.

[15] *See* Rosston/Topper Decl. ¶¶ 112-13.

[16] For a further discussion of the economic theory behind difficulties in collaboration, *see* Israel Decl. ¶¶ 117-127. The failure of certain historical partnership initiatives among cable operators have demonstrated the difficulties and limitations in collaboration. *See id.* ¶¶ 128-31.

[17] *See* Rosston/Topper Decl. ¶¶ 144-49; Rosston/Topper Reply Decl. ¶¶ 18-22.

[18] COMC-COM-00042897 at 6.

[19] COMC-COM-00042897 at 6; COMC-COM-00043296 at 101-04.

Furthermore, increased scale will enable Comcast to (1) justify additional investments in speculative products and services with high fixed costs; (2) develop new VOD or DVR technology; and (3) develop other new offerings, such as the launch of enterprise services within **[[** **]]**.[20] The ability to amortize development costs over more systems will allow Comcast to deploy new products and services more rapidly.

3. Expanded Geographic Reach

As with economies of scale, an expanded geographic reach is likely to lead to operating efficiencies and will likely allow Comcast to provide higher-quality services to customers in the combined company's expanded footprint. For example, expanded geographical reach should increase Comcast's investment in Wi-Fi access points and improvements in Wi-Fi service – a substantial consumer benefit.[21] A Wi-Fi network becomes much more valuable as its coverage becomes more ubiquitous.[22] Comcast has made Wi-Fi deployment a central focus of its investment and service strategy and is in the process of building one of the largest and most robust Wi-Fi networks in the nation to give its broadband customers more flexibility and access options, including Wi-Fi access at public venues like sports arenas.

Although Comcast and TWC are already both part of a "Cable WiFi" partnership that allows Comcast and TWC customers to use certain Wi-Fi hotspots in each of their respective markets, Comcast has invested much more in Wi-Fi for its own customers than TWC has. TWC has thus far deployed only 29,000 Wi-Fi access points in its footprint; Comcast, on the other hand, has deployed approximately 870,000 Xfinity Wi-Fi access points in its footprint.[23] With the combined company's expanded footprint, Comcast will now have a greater incentive to invest in and deploy Wi-Fi hotspots in TWC's current footprint compared to TWC's existing incentive because it will be able to internalize more of the benefits of an expanded Wi-Fi network.[24] Thus, the proposed transaction will provide a more seamless fabric of Wi-Fi connectivity across the combined company's footprint.[25] This will benefit many residential and business customers who use Wi-Fi access points outside of their homes or businesses. **[[** **]]**.[26]

[20] *See* Angelakis Decl. ¶ 15; COMC-COM-00043296 at 6, 92-99.

[21] *See* Israel Decl. ¶¶ 191-92.

[22] Rosston/Topper Decl. ¶ 96.

[23] *See* Comcast-TWC Public Interest Statement at 40-41.

[24] Israel Decl. ¶ 195.

[25] Angelakis Decl. ¶ 25.

[26] *See* COMC-COM-00043296 at 45.

Wider availability of Wi-Fi hotspots means that customers can use mobile devices in more places, more conveniently. Furthermore, the proposed acquisition may enable Comcast to use the increased density and the extended geographic coverage of Wi-Fi to compete with current mobile wireless providers through the introduction of a "Wi-Fi-first" service, which combines commercial mobile radio service with Wi-Fi.[27]

Expanded geographic reach will also allow the combined company to compete more effectively for business customers whose operations span multiple regions. Without the transaction, neither Comcast nor TWC can provide businesses services that cross territories as effectively as either company can within their respective footprints.[28] The proposed transaction will allow Comcast to offer a unified set of seamless products and services to its business customers throughout the combined company's extended footprint with greater operational and cost efficiencies, allowing it to compete more effectively against incumbent LECs.[29] The reduction in marginal cost and elimination of double marginalization will result in lower prices and improved service to business customers. These benefits are expected to be realized **[[ ]]**.[30]

Further, in order to take advantage of the opportunity provided by the merger to serve more business customers, Comcast will improve its network (laying more fiber or installing additional capacity in CRANs), which will benefit both business and residential customers. As Dr. Israel demonstrates, enhanced investments in the core network as a result of increased scale and greater opportunities in business services will redound to the benefit of residential customers.[31] Investments in CRANs and the IT network are expected to occur **[[ ]]**.[32]

As is well-known, contracting may not achieve all of the potential benefits because of the difficulties that arise in such practices, including transactional frictions and costs, differences in beliefs, double marginalization, and the requirement for large investments specific to collaboration with another company in which returns hinge on the future behavior of the other company.[33] Cable companies have attempted to partner for years to provide business services

[27] *See* Rosston/Topper Decl. ¶ 99 & n.95; *see also* Israel Decl. ¶ 197 (describing potential entry by combining Wi-Fi infrastructure with a mobile virtual network operator option); COMC-PIB-00034646.

[28] Due to footprint limitations, telco providers do not always serve each business center of a customer whose operation spans multiple regions. However, with their current footprints, they are frequently able to serve each location of a regional customer and able to serve the majority of locations of many customers, making any exceptions manageable. With their current footprints, Comcast and TWC are limited in their ability to compete with this service.

[29] *See* Angelakis Decl. ¶ 36; Rosston/Topper Decl. ¶¶ 116-38.

[30] *See* COMC-COM-00043296 at 92-99.

[31] *See* Israel Decl. ¶¶ 171-201.

[32] *See* COMC-COM-00043296 at 47, 92-99.

[33] *See* Rosston/Topper Decl. ¶ 43; Israel Decl. ¶¶ 117-31.

across multiple footprints, but previous attempts at arm's-length contracting for business services have generally been unsuccessful due to conflicting incentives and technology hurdles.[34] Comcast and TWC have only very recently signed their first joint contract.

There are a number of obstacles to a consortium between cable operators to pursue large, super-regional business customers, including disparate underlying operational systems that may lead to inefficiency; differing capabilities across cable operators that may limit product features; and integration of operational and business systems across participating cable operators, all of which present substantial challenges.[35] While no company serves the entire United States and thus any very large, multi-regional business likely relies on a service solution that is supported by more than one company, companies tend to prefer the involvement of as few companies as possible, and the management of such business is typically given to a company that controls a higher percent of the relevant services. The transaction will help to overcome such obstacles for Comcast and TWC to participate in such business opportunities.

4. Sharing of Technologies and Services

The proposed transaction between Comcast and TWC will also allow the companies to combine their portfolios of technologies and services and share the specialized knowledge that each company possesses.[36] This will allow the combined company not only to provide more (and better) services at a lower cost than Comcast or TWC could do separately, but also to introduce technological advances and other upgrades at a faster rate. For example, although Comcast represents only about 20% of MVPD subscribers, those subscribers account for approximately 60% of total national video-on-demand use, reflecting Comcast's best-in-class VOD service.[37] The merger will allow Comcast to share its VOD content and delivery platform with customers who are in TWC's footprint.

Furthermore, Comcast has invested billions of dollars to upgrade its network to deploy DOCSIS 3.0 and transition its systems to all-digital. Today, Comcast delivers some of the industry's fastest broadband speeds and has increased broadband speed 13 times in 12 years, offering speeds of up to 505 Mbps in most markets.[38] Following the proposed transaction, customers in the acquired TWC and Charter systems will benefit from accelerated deployment of faster broadband speeds and a fully upgraded, more reliable, and more secure network, both

[34] *See* Rosston/Topper Decl. ¶ 141.

[35] *Id.*

[36] *See* Rosston/Topper Decl. ¶ 65 & n.47 (noting that "benefits due to sharing technology and knowledge can be thought of as economies of scope in the production of these products and services," *citing* Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, 4th ed., at 21, 45).

[37] Rosston/Topper Reply Decl. ¶ 18 & n.28.

[38] Press Release, Comcast Corp., Comcast Increases Internet Speeds for 13th Time in 12 Years (Apr. 9, 2014), http://corporate.comcast.com/news-information/news-feed/comcast-xfinity-internet-speed-increase.

through Comcast's enhanced incentive to invest across a broader footprint and through its expertise having completed an all-digital transition.[39]

Comcast will be able to use the experience it gained from its own 2009 to 2012 transition to all-digital to transition TWC's systems more rapidly and at lower cost than TWC could on its own. Comcast's specialized knowledge includes its proprietary configuration of QAM channels and the best practices it learned regarding customer messaging, warehouse/inventory management, back-office systems, staffing, and handling of service calls.[40] Much as it did in prior transactions (such as Adelphia), Comcast has already set out a schedule of transitioning TWC markets in waves beginning **[[ ]]**. This transition will bring faster and more reliable broadband networks to residential and business customers, and the reclaimed bandwidth through digitization will enable Comcast to provide more reliable broadband service and more advanced video services. This would not occur as quickly and efficiently in the absence of the proposed transaction.

As Dr. Israel observes, "[E]ach one Mbps increase in average speed spread across all TWC customers would be worth approximately $95 million per year to consumers. Given the gap between the Comcast and TWC networks and Comcast's commitment to bring TWC up to Comcast levels, speed increases of several Mbps for TWC customers seem likely, meaning that this source of consumer benefits alone is worth hundreds of millions of dollars."[41]

Likewise, TWC brings valuable knowledge about providing certain advanced business services, including certain metro Ethernet services, to the combined company. Customers in current Comcast territories should benefit from Comcast's enhanced ability to provide these services after the transaction, an important objective of the deal.[42]

B. <u>The Divesture Transactions Will Generate Additional Efficiencies</u>

The proposed divesture transactions between Comcast and Charter will not diminish any of the efficiencies related to the TWC transaction. Indeed, the divesture transactions between

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[39] *See* Letter from Kathryn A. Zachem, Senior Vice President, Regulatory and State Legislative Affairs, Comcast Corp., to Marlene H. Dortch, Secretary, FCC, Response to Request No. 88 (Sept. 11, 2014) (attaching Comcast's Response to the Commission's Information and Data request) ("Comcast Information Request Response"). Based on the information Comcast has obtained so far about the systems, Comcast projects that the acquired customers in all of the markets will have access to all of Comcast's products within 36 months of the closing date of the Transaction and Divestiture Transactions, although some markets will be fully transitioned within a period as short as 12 months or even sooner. *See id.*; *see also* Opposition and Response at 2.

[40] As Drs. Rosston and Topper explain: "Comcast will be able to apply its specialized knowledge about these and other best practices to make the transition faster and more efficiently than TWC could on its own. Consumers in turn will benefit from having access to all-digital systems sooner and with less disruption to their service." Rosston/Topper Reply Decl. ¶ 37; *see also id.* ¶¶ 35-36.

[41] *See* Israel Reply Decl. ¶ 221; *see also* Opposition and Response at 37-38.

[42] *See* Rosston/Topper Decl. ¶ 68.

Comcast and Charter will reinforce the synergies and related efficiencies associated with the Comcast-TWC transaction and will create additional transaction-specific efficiencies for the merged entity through greater geographic integration.

The divestiture transactions between Comcast and Charter – in particular, the system swaps – will serve to increase regional concentrations of subscribers, creating economies of scale at a regional level by providing for a broader contiguous footprint in several regions.[43] As Cisco observes, "the transactions would allow Comcast and Charter to better rationalize their geographic footprints, producing efficiencies that will provide more room for investment and innovation."[44]

Enhancements to the geographic contiguity of Comcast's cable systems will allow Comcast to leverage existing infrastructure in these geographic regions (such as customer service centers, billing and provisioning infrastructure, routers and optics for last-mile Internet access service, and others) to better serve the systems it acquires from Charter, thereby lowering overall operational costs in that region and providing better, more convenient customer service at lower costs.[45] For example, greater contiguous footprints and increased concentration of customers allow for optimized locations of service centers and retail stores. This allows for technicians and service trucks to be closer to customers, reducing driving time and providing for more service calls in a given time period.

In addition, increased regional footprints allow for enhanced investments that improve the customer experience. This is particularly true for regional services that require significant fixed-cost investment at a regional level (rather than a national level), such as cloud-based DVR. Because such costs on a regional level are essentially fixed regardless of the number of subscribers in the region, the proposed divestiture transactions will increase the return from regional fixed-cost investments, allowing Comcast to make investments in regions where such investments might not have been economical over a smaller base of customers. A lower per-customer cost will also accelerate the development and provision of advanced services to systems that previously may not have been large enough to justify such investment.[46] The increased investment in network infrastructure and upgrades should ultimately help improve network reliability.

Comcast's improved geographic contiguity will also generate efficiencies in marketing. Where gaps exist in its service footprint today, Comcast sometimes lacks sufficient regional

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[43] *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Thirteenth Annual Report, 24 FCC Rcd. 542 ¶ 180 (2009).

[44] Comments of Cisco Systems, Inc. at 7, MB Docket No. 14-57 (Aug. 25, 2014).

[45] Rosston/Topper Supplemental Decl. ¶ 12.

[46] Rosston/Topper Supplemental Decl. ¶¶ 10-11. Reducing the per-customer cost of regional fixed-cost investments will also facilitate accelerated deployment of other innovate services and improvements in network reliability, such as the X1 platform, DOCSIS 3.1, and faster broadband speeds. *Id.*

scale to make it practical to buy advertising on broadcast television or other regional advertising platforms because doing so would mean paying to advertise in areas where the company does not operate. Through this transaction, Comcast will enhance its footprint within certain designated market areas ("DMAs") where it currently has relatively few subscribers, allowing Comcast to use DMA-wide advertising and reducing the use of online or direct-mail marketing campaigns, which are more expensive or less effective.[47] To the extent that these efficiencies reduce Comcast's costs, those savings will benefit Comcast's residential and business customers.

As noted above, an expanded regional footprint will also allow Comcast to provide superior services to business customers. Currently, Comcast purchases services wholesale from providers in the other areas the businesses operate in, and packages those services with its own to offer to business customers. This arrangement results in prices that include double marginalization, which would be reduced or eliminated if Comcast were able to serve more businesses directly, as will be the case based on the divestiture transactions.[48] Alternatives to the proposed divesture transactions are unlikely to generate the efficiencies described above – and certainly not achieve them as reliably or cost-effectively. For example, a partnership between Comcast and Charter to offer services over a broader area to businesses with operations across the two companies' footprints would not as effectively avoid the inconsistencies and difficulties noted above that arise when a customer purchases services from multiple providers.

C. <u>The Transactions Will Facilitate These Benefits</u>

Given that each individual cable operator is constrained by its geographic footprint, an obvious question is whether the cable operators could partner with one another or otherwise collaborate to obtain the benefits of scale without the need for a merger. However, as detailed above, the relative lack of success of many of the cross-cable operator initiatives is consistent with the long-standing body of economic theory on why such arm's-length arrangements often fail (or only partially succeed) and thus why a merger between Comcast and TWC is the best method to obtain the full benefits available from greater scale.[49]

None of the efficiencies described above can be achieved as effectively or quickly without Comcast's acquisition of TWC (and, in the case of efficiencies tied to geographic

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[47] Rosston/Topper Supplemental Decl. ¶¶ 13-14. Even where it already makes business sense for Comcast, TWC, or Charter to advertise service on local broadcast television (e.g., TWC in greater Los Angeles), the additional regional subscribers resulting from the Charter transactions (e.g., Charter subscribers in the greater Los Angeles area) will make that regional advertising more effective and efficient. *See id.*; *see also* Angelakis Decl. ¶ 19 (describing the benefits of denser geographic coverage).

[48] *See* Comcast-TWC Public Interest Statement at 92-94; *see also* Rosston/Topper Decl. ¶ 139; Rosston/Topper Reply Decl. ¶¶ 25-26.

[49] For additional examples that illustrate the difficulties in contracting, *see* Rosston/Topper Decl. ¶¶ 111-15; *see also* Israel Decl. ¶¶ 117-31. And going forward, for example, while it may be possible to overcome technical aspects of licensing X1 technology to non-Comcast customers, it may be difficult for a separate company to accept binding itself to another's product in that manner. Further, Comcast employees' development skills and the priority which Comcast places on providing the best products to customers are not capable of being licensed.

efficiencies, the related divestiture transactions with Charter).[50] Moreover, as detailed above, as well as in Exhibit A and in the materials submitted previously to the Commission, the operating efficiencies and efficiencies and benefits tied to the economies of scale, expanded geographic reach, and sharing of technologies and services are transaction-specific, substantial, well-established, and independently verifiable.

D. Efficiency Gains from the Proposed Transactions Will Benefit Customers

As described above, many of the efficiencies generated by the transaction do not involve incremental cost savings but instead involve *direct quality improvements* in products and services. There is no question that these quality benefits are "passed through" to the residential and business customers who consume these products and services. Thus, the debate over whether marginal cost savings are passed on to consumers is not relevant to evaluating these important and valuable efficiencies.

The transaction is, of course, also expected to generate some reductions in marginal cost. Basic economics suggests that a reduction of marginal cost of a supplier, such as a reduction in programming costs, is passed through to consumers in whole or in part, whether or not the supplier has market power.[51] Empirical evidence supports this claim in general, including one study that found a pass-through rate of approximately 50% for cable MVPDs at a time when they faced less competition than they currently do.[52] With respect to Comcast, Drs. Rosston and Topper found a very high correlation between changes in Comcast's programming costs and changes in ARPU for video customers from 2004 to 2013. Using a regression of the growth rate of ARPU on the growth rate of programming costs, they have estimated that **{{ }}** percentage point change in programming cost was associated with a **{{ }}** percentage change (in the same direction) in ARPU. In other words, the data do suggest that a reduction in costs (or a reduced rate of increase in costs) should lead to a reduction in ARPU.

[50] *See* Angelakis Decl. ¶ 43.

[51] *See, e.g.*, Applications of AT&T Inc. and Deutsche Telekom AG. for Consent to Transfer Control of Licenses and Authorizations, *Bureau Staff Analysis and Findings*, ¶ 126, WT Docket No. 11-65 (Nov. 29, 2011) ("[T]he Commission is more likely to find reductions in marginal costs cognizable as compared to reductions in fixed costs, because reductions in marginal or variable costs are more likely to result in lower prices."); Rosston/Topper Decl. ¶ 197; Applications of AT&T Inc. and Centennial Communications Corp. for Consent to Transfer Control of Licenses, Authorizations, and Spectrum Leasing Arrangements, *Memorandum Opinion and Order*, ¶ 90, 24 FCC Rcd. at 13954 (2009); Rosston/Topper Reply Decl. ¶ 70; *id*. at 40 citing Hal Varian, *Microeconomic Analysis*, 3rd ed., at 236-37.

[52] *See* George Ford and John Jackson (1997), "Horizontal Concentration and Vertical Integration in the Cable Television Industry," *Review of Industrial Organization*, Vol. 12, No. 4 at 501-518, 513-514. The result of the Ford study is based on data from the 1990s, when cable MVPDs faced limited to no competition from DBS or telco MVPDs. Because cable MVPDs face much stronger competition today, the pass-through rate is likely much higher than 50%.

Indeed, if the Commission were investigating the merger of two programmers and it found evidence that the merger would result in higher programming prices, one would expect the Commission to be concerned that these higher wholesale prices would be "passed on" and result in higher retail cable prices. Comcast sees no reason why there should be greater skepticism about pass-on with respect to wholesale price savings.

Comcast's incentive to pass on its cost savings to customers has also been recognized by various commenters in this proceeding. For example, the American Cable Association ("ACA") states that because Comcast allegedly receives the best rates from content providers, it will be able to offer its subscribers the lowest possible prices.[53] Although ACA casts this as putting ACA members at a competitive disadvantage, lower consumer prices would be a competitive benefit that would enhance consumer welfare.

In addition, as stated by Dr. Howard Shelanski, former head of the Bureau of Economics at the Federal Trade Commission: "The case for pass-through of efficiencies is compelling for a firm that faces competition, particularly competition as vigorous as that in the MVPD market."[54] According to Dr. Shelanski, "Reductions in the direct costs of procuring programs will result in both a lower cost per-program for subscribers and in an increased number of programs being made available to subscribers."[55] All of the above suggest that, over time, part or all of any savings in Comcast's programming costs would be passed through to Comcast's customers.[56]

E. <u>Comcast Has a Proven Track Record of Achieving Efficiencies in Prior Acquisitions</u>

None of the efficiencies described above – or in any of Comcast's other filings – is theoretical. Comcast's commitment to investing and providing industry-leading services to its customers and realizing transaction-specific efficiencies is evidenced through its prior transactions. Specifically, Comcast has proven in past transactions that it can integrate newly acquired systems in ways that benefit consumers through better, more reliable networks and enhanced, industry-leading video, broadband, and voice services.[57]

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[53] American Cable Association Inc. Comments ("ACA Comment") at 27-28, MB Docket No. 14-57 (Aug. 25, 2014).

[54] *See* Reply to Comments and Petitions to Deny Applications for Consent to Transfer Control of AT&T Corp. and Comcast Corp., App. 4, Declaration of Howard A. Shelanski at 21-22, MB Docket No. 02-70 (May 21, 2002).

[55] *Id.*

[56] Due to the long-term programming contracts that are in place, any changes in programming costs would occur over time.

[57] *See* Applications and Public Interest Statement of Comcast Corporation and Time Warner Cable Inc., Exhibit 9, Promises Made, Promises Kept at 36-38, MB Docket No. 14-57 (Apr. 8, 2014).

Comcast acquired certain cable systems from Adelphia Communications and TWC in July 2006. Comcast substantially increased its capital expenditures to upgrade the former Adelphia systems so that customers in those territories could receive advanced digital services. In the Adelphia merger proceeding, Comcast said that it would spend $150 million to upgrade Adelphia systems and set an internal timeline of 18 months to integrate the Adelphia systems. In fact, Comcast significantly exceeded that investment objective and did so on an even shorter timeline, completing system conversions and upgrades in roughly 15 months.[58] Between August 2006 and March 2008, it spent over $660 million to upgrade systems acquired from Adelphia and continued to invest in Adelphia systems thereafter.

Through these investments, Comcast made significant progress in delivering advanced video, high-speed Internet, and voice services to the acquired Adelphia (and TWC) systems. Despite the poor conditions of many of the cable systems Comcast acquired from Adelphia, Comcast was able to deploy digital cable, HDTV channels, and high-speed Internet in all acquired systems. Comcast also launched a VOD service, which Adelphia did not offer. Moreover, despite technical hurdles, Comcast launched VoIP services to most homes in the former Adelphia footprint. Prior to the acquisition, Adelphia did not offer voice services and had canceled plans to launch its own VoIP service.[59]

The geographic rationalization from the Adelphia transactions also resulted in enhanced competition and efficiencies that benefited customers through the accelerated rollout of advanced services and cost savings. By adding currently fragmented and relatively isolated systems to system groups that already existed for Comcast, the Adelphia transaction enhanced Comcast's ability to compete against DBS and ILEC competitors that operated with national or broad regional footprints, accelerated the rollout of advanced services, and created efficiencies and regional economies of scale and scope that benefited existing and newly added subscribers. Specifically, these economies of scale at the regional level resulted in efficiencies in network infrastructure and upgrades and in operational, marketing, and administrative functions.

Operating margins for these systems improved significantly, which reflect operating efficiencies that enabled Comcast to invest more in improving services and delivering more value to its customers. These operating efficiencies reflect the successful integration of the acquired cable systems, as well as the achievement of cost savings and revenue growth through a

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[58] *See* Comcast Corp. Q1 2007 Earnings Call Transcript (Apr. 26, 2007)

(noting that Comcast had internally set a standard of completing the integration in 18 months); Comcast Corp. Q3 2007 Earnings Call Transcript (Oct. 25, 2007) (comments from Steve B. Burke, President, Comcast Cable: "[W]e've successfully completed all of the many network conversions from the nearly 4 million subscribers we inherited from Adelphia, Time Warner, Susquehanna and Patriot. These systems now have comparable margins to the legacy Comcast operations. They will also provide some good revenue upside as we launch and market new products now that the conversions are done.").

[59] *See* Applications and Public Interest Statement of Comcast Corporation, General Electric Co. and NBCUniversal, Inc. at 17 & n.16, MB Docket No. 10-56 (Jan. 28, 2010), *available at* http://corporate.comcast.com/images/Public-Interest-Statement-FINAL.pdf.

better value proposition of advanced products and services. Standard economics holds that such marginal cost improvements will be passed on to customers, either fully or partially.

Comcast's outstanding track record in upgrading its cable systems and honoring its efficiency commitments is also evidenced by its acquisition of AT&T's cable systems in 2002. Prior to the acquisition, Comcast made a commitment to upgrade the former AT&T Broadband systems to bring them up to Comcast's standards.[60] After Comcast acquired AT&T Broadband, it invested more than $8 billion in capital improvements to upgrade its cable systems and built out a record 53,000 miles of fiber during 2004. Not only did Comcast meet every upgrade target, but it also met its commitments in record time.[61]

Thus, Comcast's proven track record of integrating cable systems and realizing transaction-specific efficiencies that resulted in demonstrably better products and services to its customers makes clear that the efficiencies set forth above are achievable and susceptible to verification.[62]

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[60] *See* Applications and Public Interest Statement of Comcast Corporation and AT&T Corp. at 2-5, MB Docket No. 02-70 (Feb. 28, 2002).

[61] In 2003, Comcast was named Operator of the Year by Multichannel News in recognition of this and other achievements. *See* Mike Farrell, *Comcast Corp. Through the Years*, Multichannel News, Sept. 29, 2003, at 8A (noting that, with respect to the upgrade of the former AT&T systems, "Comcast [] outperformed even its own stated expectations").

[62] *Cf. United States v. H&R Block, Inc.*, 833 F. Supp. 2d 36, 91 (D.D.C. 2011) (holding that H&R Block's failure to achieve past efficiencies projected with acquisitions meant that its claims of efficiencies associated with acquiring TaxACT warranted "particular scrutiny").

Exhibit A to Response to Question No. 6

	Efficiency	Timing	Merger-Specific	Economic theory	Beneficiaries	Verifiability	Sources
	Operating Efficiencies						
1	Efficiencies resulting from the proposed transaction will total approximately \$1 5 - \$2 0 billion in operating expenses and approximately \$400 million in capital expenditures by the third year after closing	Comcast expects to achieve 50 percent of the operating efficiencies in the first year after closing, another 25 percent in year two, and the remaining 25 percent in year three, with operating expense efficiencies recurring at or above the \$1 5 - \$2 0 billion level each year thereafter (capital expenditure efficiencies are not expected to continue beyond year three)	These efficiencies are merger-specific by definition	- Reduce corporate overhead, eliminate duplicative networks, assets, and functions, and reduce programming expenses - Consumer pass-through	Residential and business customers throughout the current service areas of Comcast, TWC, and Charter that will become part of the combined company	Timeline and detailed plan for Operating and Capex synergies are laid out in merger integration planning materials Comcast achieved similar operating efficiencies in its prior acquisitions of AT&T Broadband and Adelphia	Response to FCC Information Request 80 COMC-COM-00042897 at 6 COMC-COM-00043296 at 114-117 Angelakis Decl ¶ 7 COMC-EVA-00003953
	Efficiencies for Residential Customers						
2	The proposed transaction will accelerate the transition of TWC systems to all-digital	Transition is scheduled in waves that Comcast expects to complete by **[[ ]]**	Comcast will be able to use the experience it gained from its own transition to all-digital to transition TWC's systems more rapidly and at lower cost than TWC could on its own Comcast's specialized knowledge includes its proprietary configuration of QAM channels and the "best practices" it learned regarding customer messaging, warehouse/inventory management, back-office systems, staffing, and handling of service calls	- Learning by doing and sharing of services and know how	Residential and business customers in TWC's current service area	Timeline and detailed plan are laid out in merger integration planning materials	COMC-HOJ-00002695 COMC-COM-00043296 at 58-65 Rosston/Topper Decl ¶¶ 104–105; Rosston/Topper Reply Decl ¶¶ 35–37 Letter from Kathryn A Zachem, Senior Vice President, Regulatory and State Legislative Affairs, Comcast Corp , to Marlene H Dortch, Secretary, FCC, Response to Request No 88 (Sept 11, 2014)
3	There will be faster deployment of advanced video technologies (X1, VOD, TVE) in TWC territory	Full X1 product experience (X1, full VOD, TVE Apps, EST) expected to be rolled out to first major markets within 12 months and all markets within **[[ ]]** months	The availability of X1 to TWC customers would not be available as quickly or efficiently absent the transaction Licensing efforts around X1 have been unsuccessful	- Sharing of technologies	Residential customers in TWC's current service area	Timeline and detailed plan are laid out in merger integration planning materials	Response to FCC Information Request 80 COMC-COM-00042897 at 6 COMC-COM-00043296 at 46 Rosston/Topper Decl ¶¶ 112-13

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Exhibit A to Response to Question No. 6

	Efficiency	Timing	Merger-Specific	Economic theory	Beneficiaries	Verifiability	Sources
4	There will be more investment in developing new technologies and services for residential customers (e g , IP cable, apps for third-party devices, whole home management tools)	Timing depends on initiatives	The transactions allow Comcast achieve scale that it could not achieve within its current footprint Contracting between MSOs to achieve scale is not feasible	- Fixed cost component of investments leads to economies of scale	Residential customers throughout the current service areas of Comcast, TWC, and Charter that will become part of the combined company	Comcast has been a leader in R&D and innovation and the transaction should enable the combined company to conduct R&D more effectively Content providers have noted that the increased scale from the transactions will likely result in new technological options for content on different platforms	Rosston/Topper Decl ¶¶ 85–94
5	The proposed transaction will increase incentive to invest in Wi-Fi access points throughout the combined company's footprint	Rollout plan **[[** **]]**	Although the CableWiFi partnership allows customers of each participating MSO to use access points of the other participating MSOs, it does not give the same incentive to invest in more Wi-Fi access points that the combined company would have	- Combined firm will internalize the benefits of additional Wi-Fi access points to customers across the combined firm's service areas	Residential and business customers who use Wi-Fi access points outside of their home or business	Timeline is laid out in merger integration planning materials	COMC-COM-00043296 at 45 Rosston/Topper Decl ¶¶ 96–99; Rosston/Topper Reply Decl ¶¶ 29–32 Israel Decl ¶¶ 191-92
6	It will lead to economies of scale at the regional level, including efficiencies in network infrastructure and upgrades; in operational, marketing, and administrative functions; and in customer service	Timing to follow general timeline of TWC integration	The acquisition of contiguous systems from Charter will allow Comcast to realize the benefits of geographic clustering: (1) greater return on regional fixed cost investments leading to more investment, (2) potentially bringing technicians and truck fleets closer to customers, (3) more efficient local and regional advertising	- Fixed costs at the regional level lead to economies of scale at the regional level - Lower costs due to greater customer density and more efficient use of local and regional advertising in some areas	Residential and business customers in areas where Comcast will be acquiring Charter systems or in adjacent Comcast service areas	Integration plan is laid out in merger integration planning materials Comcast achieved similar efficiencies in prior transactions, including Adelphia/TWC	COMC-COM-00043296 at 106-112 Rosston/Topper Supplemental Decl ¶¶ 9–14

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	Efficiency	Timing	Merger-Specific	Economic theory	Beneficiaries	Verifiability	Sources
	Efficiencies for Business Customers						
7	Expanded geographic reach will allow Comcast to serve more business customers, which will increase competition for these customers leading to lower prices and/or improved service	Business services brand is planned to launch throughout TWC footprint and a number of product changes, marketing sales, and operations milestones are targeted to occur **[[ ]]**	This expansion of geographic reach would not occur absent the transactions Cable MSOs, including Comcast and TWC, have been unable to achieve the same benefits through joint sales and even if they could, the problem of double marginalization would remain	- Lower marginal cost of serving multi-location businesses - Eliminates double marginalization	Businesses throughout the current service areas of Comcast, TWC, and Charter that will become part of the combined company	Key milestones are laid out in merger integration planning materials	COMC-COM-00043296 at 92-99 COMC-VIB-00059333 COMC-ANM-00023100 at 11 Rosston/Topper Decl ¶¶ 122–133 Angelakis Decl ¶ 36 COMC-ANM-00023100 at 11
8	To serve more business customers, Comcast will improve its network (laying more fiber or installing additional capacity in CRANs), which will benefit both business and residential customers	CRAN / IT network improvements are planned to occur **[[ ]]**	This efficiency flows from the one listed above – the expanded geographic reach will lead to an increased incentive to improve the network to serve more business customers	- Combined firm's optimization problem makes it more profitable to build out to more locations and improve the network in more areas	Business customers and residential customers in service areas where Comcast will be adding business customers	Rollout plan is laid out in merger integration planning materials	COMC-COM-00043296 at 47, 92-99 Rosston/Topper Decl ¶ 63; Rosston/Topper Reply Decl ¶ 28 Israel Decl ¶¶ 171-201
9	The proposed transaction will increase ability to provide enterprise-class service to business customers	Launch of Enterprise service with target of **{{ }}** targeted **[[ ]]**	The transactions allow Comcast achieve scale that it could not achieve within its current footprint, which will allow Comcast to invest in fixed costs including network infrastructure and network operations centers	- Fixed cost component of investments necessary to provide enterprise-class service leads to economies of scale - Sharing of technology, services, and know how	Business customers with demand for enterprise-class service	Timeline is laid out in slide merger integration planning materials	COMC-COM-00042897 at 6 COMC-COM-00043296 at 92-99 Rosston/Topper Decl ¶¶ 134–138 Angelakis Decl ¶ 15

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	Efficiency	Timing	Merger-Specific	Economic theory	Beneficiaries	Verifiability	Sources
	Efficiencies Related to Advertising						
10	The proposed transaction will accelerate the deployment, measurement, and uptake of advanced advertising services such as dynamic ad insertion and addressable advertising	Launch of new Comcast ad service (VOD DAI, targeting capabilities, STB data integration, Strata tools) is targeted for **[[ ]]** Rollout of advanced advertising services in TWC territory will likely follow same timeline as **[[ ]]**	The sharing of Comcast technologies and additional scale and reach afforded by the transactions has the potential to speed up improved measurement of viewing in ways that could create significant incremental revenue for content providers and, as a result, potentially increase free content for consumers	- Sharing of Comcast VOD rights, platforms, and advanced advertising technologies - Increased scale and reach help with industry acceptance of new measurement tools	Content providers; advertisers; video customers	Some initial goals are laid out in merger integration planning materials	COMC-COM-00042897 at 6 COMC-COM-00043296 at 101-104 Rosston/Topper Decl ¶¶ 144–149; Rosston/Topper Reply Decl ¶¶ 18–22 COMC-ANM-00023100 at 11