

TIME WARNER CABLE INC.  
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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of	)	
	)	
Applications of	)	
	)	
Comcast Corp. and	)	MB Docket No. 14-57
Time Warner Cable Inc.	)	
	)	
For Consent To Transfer Control of	)	
Licenses and Authorizations	)	

APPLICATIONS AND PUBLIC INTEREST STATEMENT

DESCRIPTION OF TRANSACTION, PUBLIC INTEREST SHOWING,  
AND RELATED DEMONSTRATIONS

COMCAST CORPORATION	TIME WARNER CABLE INC.
300 New Jersey Avenue, N.W.	901 F Street, N.W.

Suite 700  
Washington, DC 20001

Suite 800  
Washington, DC 20004

April 8, 2014

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I. INTRODUCTION AND SUMMARY

The proposed merger of Comcast Corporation (“Comcast”) and Time Warner Cable Inc.

(“TWC”) (together, “Applicants”) will provide unique benefits to both consumers and businesses throughout the combined company’s service area, and broadly advance the public interest in multiple concrete ways. This transaction will enhance consumer welfare and competition and deliver substantial public interest benefits, including through competitive entry in market segments neither company can meaningfully serve on its own today. Together, Comcast and TWC will bring to millions of households and businesses of all sizes the next generation of broadband Internet, video, voice, and related technologies and services, and will compete more effectively against communications, media, and technology providers with national and global scale.

The two companies, which serve distinct geographic areas, both began as cable operators offering television services to consumers. Today, each Applicant offers a diverse array of services and technologies to consumers, and increasingly competes in its respective footprint for business customers as well. Offering this broad suite of advanced services and a rich video experience is a capital-intensive, high-fixed-cost endeavor – in a space where competition is intense and continued investment and innovation are essential. And competition is increasing as this marketplace becomes more diverse and expansive.

To date, Comcast has been able to adapt to this changing marketplace through a commitment to network upgrades and substantial investment in research and development. TWC has made significant strides in video technology and business services, though its smaller scale and scope have limited some of those efforts. By combining these two companies’ technological developments and know-how, and their geographic reach, along with Comcast’s

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strong balance sheet, commitment to invest significantly in the TWC systems, and substantial expertise in efficiently upgrading cable systems, the post-transaction company will be well positioned to compete against its national and global competitors, to improve the customer experience today, and to forge ahead to meet future challenges and needs.

For consumers, this means expanded access to, and more rapid deployment of, the industry-leading technology, services, and programs that Comcast is dedicated to providing, including:

- High-speed broadband services available on bundled and standalone bases;
- A fully upgraded network that provides highly reliable and secure service;
- A nationally acclaimed and comprehensive low-income broadband adoption program;
- The most robust and advanced VOD and TV Everywhere experience;
- The best-in-class video technology and user interface;
- The most successful alternative to traditional voice services; and
- A commitment to diversity and inclusion, and to providing accessible solutions to people with disabilities.

Nowhere will these benefits be more important than in the broadband space. While TWC has upgraded its entire network to DOCSIS 3.0 and has plans to improve speeds and further digitize its network, Comcast has already transitioned to a fully digital network, stands ready to implement DOCSIS 3.1 (the next-generation broadband standard), and has rolled out some of the fastest Internet speeds and the largest Wi-Fi network in the nation. This transaction will accelerate network upgrades in the TWC markets and produce a more advanced broadband network. As the Commission has recognized, such network investment not only answers essential consumer needs in the short term, but also will spur demand for the applications and content of tomorrow. And substantial investment by one network provider provokes responsive

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investment and accelerated deployment by competitors – a dynamic richly borne out by the past two decades of spirited broadband competition.

Significant benefits will result for business customers, as well. Comcast and TWC have made some inroads into the business market, offering small- and medium-sized businesses innovative services and a better value proposition than was previously available to such customers from legacy providers – and provoking competitive responses by those incumbents. Each company has had some success, but its limited geographic scope has constrained its ability to offer truly meaningful competition to the established providers. The combined company's greater geographic reach and its combined expertise and services will allow it to become a stronger competitor, offering businesses of all sizes better options, lower prices, higher quality, and enhanced services.

Likewise, the transaction will result in new options for advertisers. The combined company will have the scale to market on a near-national basis and to invest in the development and deployment of dynamic ad insertion and addressable technologies for use in VOD and other cable and online programming that will bring added value to programmers and advertisers. This, in turn, should incentivize programmers to make additional popular content available on VOD and other platforms, to the benefit of consumers.

Finally, the transaction will extend a variety of other public interest benefits to the TWC markets, including conditions and commitments resulting from the NBCUniversal transaction. These include application of the Open Internet rules and Comcast's commitment to offer standalone broadband, among others. The TWC markets also will benefit from Comcast's deep dedication to broadband adoption, diversity, accessibility, and cybersecurity.

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The Commission can be confident in all the benefits described above, not only because many are essential to the transaction’s rationale, but also because of Comcast’s record of keeping its promises in prior transactions to bring new benefits to consumers and competition. Time and time again, Comcast has delivered – and over-delivered – on its promises to unleash more investment and innovation. Together with TWC, it is fully poised to do so again, including a commitment to add substantial incremental investments to TWC’s planned upgrades and enhancements over the next three years.

In contrast to these clear public interest benefits, there is no credible theory of harm arising from the transaction. After the transaction, customers in the Comcast and TWC markets will have as many providers to choose from – for Internet, video, or voice – as they have today. Said another way, there is no change in local market share – the only geographic market of any relevance to the core services at issue here – in any market Comcast or TWC serves, because Comcast and TWC do not compete today, and Comcast will simply replace TWC as the provider in the latter’s service areas. In contrast to certain proposed mergers of direct competitors that were met with skepticism because they would have reduced choice for consumers, there is no horizontal consolidation issue here.

Vertical effects similarly raise no concerns. In the past, there was concern about “buying power” in the video marketplace, on the theory that allowing a cable company to serve too many households would give that company too much influence over the viability of unaffiliated programming networks. That concern was tested in 2001, and again in 2009, in connection with a 30 percent cable ownership cap that had been put in place by the Commission. In both cases, the court concluded that this theoretical concern was not supported by the marketplace facts and decisively rejected a 30 percent standard. As the court said in 2009:

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[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.

The court also noted that, “[b]ased upon the record before the [same] court [in 2001], the [FCC’s horizontal ownership] subscriber limit . . . could not have been lower than 60%,” and went on to conclude that, “[i]n light of the changed marketplace, the Government’s justification for the 30% cap is even weaker now than in 2001.”

Competition has only increased since this ruling. Notably, since 2009 when the court last rejected the 30 percent cap, the two nationwide DBS providers have added another 1.7 million subscribers and the telco video providers have added 6.2 million subscribers, while traditional cable operators have lost 7.3 million video subscribers. And this is just one dimension of the competition that Comcast and TWC face in a dynamic and increasingly mobile and global marketplace marked by innovation and consumer choice. Internet and device companies, with newfound global scale, also are competing aggressively in the video marketplace and in the larger broadband ecosystem. For example, Netflix now has over 33 million customers in the United States alone, with another 11 million international customers; Google’s video websites now attract over 157 million unique viewers each month who watch nearly 13 billion videos; Apple iTunes viewers purchase over 800,000 TV episodes and over 350,000 movies per day. Apple has launched Apple TV and seems poised to launch a more comprehensive set-top box product. Likewise, Amazon currently offers a streaming video service and just announced the planned release of Amazon Fire TV, an advanced video set-top device. And some of these companies have annual revenues and/or market capitalizations that are two or three times greater than Comcast’s. On top of this, there are potential new online entrants, and Verizon, Dish, and DirecTV have been making progress on this front just in the last month. In the evolving video

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marketplace in which these companies have thrived, there is no reason why a cable company should be limited in evolving as well, especially one that has time and again demonstrated its willingness to meet and enhance competition through innovation and investment. Added scale will make that innovation go faster and that investment go farther.

Notwithstanding the absence of plausible horizontal harms, however, Comcast is prepared to divest systems totaling approximately 3 million video subscribers, such that Comcast-managed subscribers will remain at a level that is below the now-vacated 30 percent horizontal limit.

Nor is there cause for concern in the broadband marketplace. Comcast and TWC provide broadband services in different geographic areas, so there is no reduction in consumer choice as a result of this transaction. Internet service providers (“ISPs”) like Comcast and TWC are not aggregators of content for their broadband customers, but instead serve as a means of access for any and all of the Internet content their customers want. And they do so against an increasingly competitive backdrop, in which traditional phone companies as well as new providers such as Google Fiber and others are actively pursuing market share. Indeed, the Commission’s own data demonstrate that consumers enjoy a high level of choice among providers. Furthermore, wireless broadband is increasingly emerging as a competitive alternative to wired broadband given the accelerating speed and reliability of advanced wireless networks, the growing value of mobility, and the fact that consumers increasingly use tablets and smartphones as “first screens.” In this highly competitive marketplace, there is simply no economic incentive for Comcast to use its broadband network to interfere with its customers’ access to edge providers’ content on the backbone or the last mile – Comcast customers place a high premium on being able to access any Internet content they want. In any event, Comcast’s Open Internet commitment removes all

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doubts and provides an additional regulatory safeguard – one that is not present for any other ISP in the market.

In sum, an objective weighing of the significant public interest benefits that are inherent in this transaction against the speculative and ill-defined harms that are unlikely to arise should lead to ready approval.

## II. DESCRIPTION OF THE TRANSACTION

### A. The Proposed Transaction

Comcast has entered into an agreement with TWC whereby Comcast will acquire 100 percent of TWC's equity in exchange for Comcast Class A shares ("CMCSA"). The proposed transaction is a straightforward acquisition of TWC, and Comcast plans to retain all of TWC's existing assets, subject to divestitures of cable systems totaling approximately 3 million subscribers. As illustrated in the structure charts included in Exhibit 3, at the closing of the transaction, Tango Acquisition Sub, Inc. ("Merger Sub"), a new direct wholly owned subsidiary of Comcast, will merge with TWC under Delaware law. At that time, the separate corporate existence of Merger Sub will cease and, thereafter, TWC will be a wholly owned subsidiary of Comcast. Contemporaneously with the merger, each TWC share will be converted into the right to receive 2.875 shares of CMCSA.

### B. The Applicants

#### 1. Comcast

Comcast Corporation is a global media and technology company with two primary businesses – Comcast Cable and NBCUniversal – with approximately 136,000 employees. As illustrated in the first map in Exhibit 7, Comcast's network facilities cover portions of 39 states

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and the District of Columbia, and Comcast faces strong competition in each of those areas for all of its services.

a. Comcast Cable

Comcast Cable is a leading provider of video, high-speed Internet, digital voice, and other next-generation services and technologies to millions of residential customers and small-and medium-sized businesses.

i. Cable Systems and Video Services

Comcast currently owns and operates cable systems serving approximately 21.7 million video customers, including residential and business customers.<sup>1</sup> Since 1996, Comcast and its predecessors-in-ownership have invested tens of billions of dollars to upgrade network infrastructure by installing fiber optics and other technological enhancements. Comcast led the industry in transitioning to digital and has already implemented an all-digital platform across its systems.

Comcast provides a variety of video services with access to tens of thousands of entertainment choices under the Xfinity brand. Customers enjoy a full array of both traditional and advanced video products, including hundreds of channels of linear video programming from local broadcast stations, premium cable programmers, and national, regional, and local cable networks; programming packages tailored for diverse audiences; pay-per-view services; an impressive range of high-definition (“HD”) programming; approximately 50,000 video-on-demand (“VOD”) choices on Xfinity On Demand, most of which are available to digital video customers at no additional charge; digital video recorder (“DVR”) services; and interactive

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1 Comcast Corp., Annual Report (Form 10-K), at 3 (2013) (“Comcast 10-K”).



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programming guides. In addition, Comcast recently began to offer its customers the option to purchase and own digital copies of movies and television shows.

Through Xfinity.com/TV and the Xfinity TV Go App, Comcast customers can stream over the Internet to their PCs and mobile devices over 50 linear cable networks and thousands of hours of the latest TV shows and popular movies, and, with the Xfinity TV Go App, Comcast customers can even download movies and shows to their mobile device to take anywhere. The most striking example of Comcast's efforts to provide its customers with cutting-edge services is Comcast's next-generation entertainment operating system, the X1 platform, which is now available across Comcast's entire footprint. The X1 platform provides a state-of-the-art cloud-based user interface and, in select markets, the ability to stream to computers and mobile devices in the home practically the entire channel lineup (including PEG and must-carry channels). And with the launch of the new X1 DVR with cloud technology, Comcast customers will be able to record more shows; access them in their homes on multiple TVs, computers, and mobile devices; and download their recordings to mobile devices.

ii. Broadband Internet

Comcast owns and operates one of the most robust networks in the country. Comcast's high-speed Internet service currently has approximately 20.7 million customers, including residential and business customers.<sup>2</sup> Comcast has deployed DOCSIS 3.0 to almost its entire broadband footprint.<sup>3</sup>

Comcast's investments of tens of billions of dollars over the past 20 years to continually upgrade its network have led to clear benefits to customers. Comcast has increased broadband

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2 Comcast 10-K, at 3.

3 Comcast has deployed DOCSIS 3.0 to 99.8 percent of its footprint.

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speeds 12 times in 12 years, and the vast majority of Comcast customers now subscribe to speed tiers with download speeds of 25 Mbps and upload speeds of 5 Mbps along with the fastest in-home Wi-Fi – in fact, over one-third of Comcast customers have download speeds of 50 Mbps or more and upload speeds of 10 Mbps or more. Comcast offers broadband options at multiple speed levels. For customers that want ultra high-speed Internet, Comcast now offers a speed tier of 105 Mbps downstream and 20 Mbps upstream throughout much of its service area, and has begun to offer a tier of 505 Mbps downstream and 100 Mbps upstream in an expanding number of markets by leveraging fiber deeper into its network. Soon, Comcast will be able to offer speeds of 250 Mbps downstream and 50 Mbps upstream to customers’ homes across its footprint using its existing Hybrid Fiber/Coax (“HFC”) network infrastructure.

### iii. Voice Services

Delivering on its promise made in its acquisition of AT&T Broadband over ten years ago to bring new competition to the market for voice services,<sup>4</sup> Comcast now provides voice services to approximately 10.7 million customers, including residential and business customers.<sup>5</sup> Using Voice over Internet Protocol (“VoIP”) technology, Comcast provides competitive facilities-based voice services to deliver digital-quality phone service, plus enhanced features that are integrated with other Comcast services. Comcast has brought significant innovations to its voice service in the past several years and offers Xfinity Voice customers unlimited nationwide talk and text (including on their mobile devices over Wi-Fi using Voice 2go on the Xfinity Connect App), access to voicemail on the Xfinity Connect website, and Readable Voicemail that enables

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<sup>4</sup> See Applications for Consent to the Transfer of Control of Licenses from Comcast Corp. and AT&T Corp., Transferors to AT&T Comcast Corp., Transferee, Memorandum Opinion and Order, 17 FCC Rcd. 23246 ¶¶ 186-188 (2002) (noting that Comcast and AT&T asserted that the merger would “further accelerate the deployment of facilities-based local telephone competition, creating substantial public interest benefits”), *aff’d sub nom. Consumer Fed’n of Am v. FCC*, 348 F.3d 1009 (D.C. Cir. 2003) (“Comcast-AT&T Broadband Order”).

<sup>5</sup> Comcast 10-K, at 3.

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customers to read their voicemail messages over email. By integrating Xfinity Voice with other services, Comcast provides innovative features like Universal Caller ID, which identifies a caller on a customer's TV, computer, or mobile device.

#### iv. Business Services

Comcast is an aggressive new entrant in the business services market, currently focused on serving small- and medium-sized businesses. Comcast's services for business customers include broadband, voice, and video offerings; a website hosting service; an interactive tool that allows customers to share, coordinate, and store documents online; hosted voice services using cloud network servers; a business directory listing; "Be Anywhere" functionality that allows customers to make and receive calls from any device at any location with one phone number; and an integrated suite of cloud-based business solutions like data backup, security, and online storage. Comcast also provides advanced voice services and Ethernet network services to business customers that connect multiple locations. Moreover, Comcast is active in the wholesale business, particularly with respect to cellular backhaul services that help wireless carriers manage their network bandwidth more efficiently by leasing fiber facilities to transport wireless traffic from their cell towers.

#### v. Advertising

Comcast Spotlight is the advertising sales division of Comcast Cable and provides a variety of advertising solutions for local, regional, and national advertisers. Comcast Spotlight offers television, online, VOD, multi-screen, and addressable advertising services. Currently, Comcast Spotlight has a presence in almost 80 markets. Comcast, together with TWC and Cox Media, is also an owner of NCC Media, which represents national spot advertising sales for cable, satellite, and telco programming distributors across the country.

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vi. Cable Programming

Comcast directly owns interests in the following cable program networks and services: MLB Network (8.3 percent), NHL Network (15.6 percent), Midco Sports Network (50 percent), iN Demand (54 percent), and Streampix (100 percent), as well as the following local origination channels: Pittsburgh Cable News Network (30 percent), C2 (100 percent), Comcast Entertainment Television (100 percent), Comcast Hometown Network (100 percent), Comcast Television Network (100 percent), CN100 (100 percent), HoosierTV (100 percent), Utah Channel 6 (100 percent), and WNFM-TV (100 percent).<sup>6</sup>

b. NBCUniversal

NBCUniversal, which is owned and controlled by Comcast, is one of the world's leading media, news, and entertainment companies. NBCUniversal operates the NBC and Telemundo broadcast television networks. Ten local NBC stations are owned and operated by NBCUniversal. Telemundo's operations include 17 owned-and-operated local stations. NBCUniversal's national cable networks include the following (100 percent ownership unless otherwise noted): Bravo, Chiller (80 percent), Cloo (formerly Sleuth), CNBC, CNBC World, E!, Esquire Network (formerly Style), G4, Golf Channel, MSNBC, mun2, NBC Sports Network (formerly Versus), Oxygen, Sprout, SyFy, Universal HD, and USA Network. In addition, NBCUniversal owns non-controlling interests in RLTV (7.7 percent), Universal Sports (11 percent), ShopNBC (14.5 percent), FEARnet (31 percent), The Weather Channel Companies (25 percent), and TV One (47.2 percent). NBCUniversal also owns New England Cable News (100

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<sup>6</sup> Comcast also has interests in other, smaller local origination channels.

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percent), a regional news network, and has minority interests in Television Korea 24 (1 and 2) (14 percent) and Saigon Broadcasting Television Network (50 percent).<sup>7</sup>

Several regional sports networks (“RSNs”) are also part of NBCUniversal’s cable programming portfolio. NBCUniversal owns interests (with percentage interests shown in parenthesis) in Comcast SportsNet Houston (22.5 percent),<sup>8</sup> Comcast SportsNet Chicago (30 percent), Comcast SportsNet Bay Area (67 percent), Comcast SportsNet Philadelphia (75 percent), Comcast SportsNet New England (80 percent), Cable Sports Southeast (81 percent),<sup>9</sup>

Comcast Sports Southwest (100 percent), Comcast SportsNet California (100 percent), Comcast SportsNet Mid-Atlantic (100 percent), Comcast SportsNet Northwest (100 percent), and The Comcast Network (100 percent). In addition, NBCUniversal has a minority interest in SportsNet New York (8.2 percent).<sup>10</sup>

NBCUniversal has other businesses as well, including film and television production studios, theme parks, and online services.

## 2. Time Warner Cable

TWC is a leading provider of video, high-speed Internet, and voice services to residential and business customers. As illustrated in the map in Exhibit 7, TWC’s network facilities cover

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<sup>7</sup> NBCUniversal also has a 33 1/3 percent non-controlling interest in Hulu. Pursuant to the NBCUniversal Conditions, Comcast has no management rights in Hulu.

<sup>8</sup> On February 4, 2014, a bankruptcy court entered an order for relief in connection with Comcast SportsNet Houston, thus making the network a debtor under Title 11 of the United States Code. The bankruptcy case is proceeding and it has yet to be determined whether the network will be reorganized, sold, or liquidated.

<sup>9</sup> Cable Sports Southeast recently announced plans to cease operations on May 31, 2014.

<sup>10</sup> NBCUniversal’s ownership of cable program networks has actually decreased since the Comcast-NBCUniversal transaction. In particular, NBCUniversal is no longer affiliated with 11 A&E national video programming services (i.e., A&E, Bio, Crime & Investigation Network, Current, History, History En Espanol, History International, Lifetime, Lifetime Movie Network, Lifetime Real Women, Military History). See Michael J. de la Merced, Comcast to Sell Back Its Stake in A&E for \$3 Billion, N.Y. Times, July 10, 2012, available at [http://dealbook.nytimes.com/2012/07/10/comcast-to-sell-back-its-stake-in-ae-for-3-billion/?\\_php=true&\\_type=blogs&\\_r=0](http://dealbook.nytimes.com/2012/07/10/comcast-to-sell-back-its-stake-in-ae-for-3-billion/?_php=true&_type=blogs&_r=0).

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portions of 31 states, and TWC faces strong competition in each of those areas for all of its services.

a. Cable Systems and Video Services

TWC is the fourth-largest multichannel video programming distributor (“MVPD”) in the United States, with cable systems serving approximately 11.4 million residential and business customers. TWC has developed and deployed switched digital video technology, and its cable systems typically provide access to hundreds of linear channels and 18,000 hours of VOD programming. TWC services include features like StartOver, which allows customers to restart a live program in progress, and LookBack, which allows customers to watch programs up to three days after they air live, all without a DVR. TWC offers various tiers and packages of video programming, as well as specialty programming tiers tailored to particular interests. TWC’s all-digital migration is complete in about 17 percent of its footprint, and TWC plans to be all-digital in 75 percent of its footprint by the end of 2016.

Like Comcast, TWC offers live streaming service and access to on-demand services to its customers on a range of devices in the home using TWC’s TV apps. TWC’s customers also can access some video programming on computers outside the home via [www.twctv.com](http://www.twctv.com).

b. Broadband Internet

TWC serves approximately 11.6 million high-speed Internet customers, including residential and business customers. TWC offers a range of speeds at different price points – from up to 2 Mbps downstream and up to 1 Mbps upstream to up to 50 Mbps downstream and up to 5 Mbps upstream – in most markets. And, in certain select markets (such as New York City and Los Angeles), TWC recently began offering speed tiers of up to 75-100 Mbps downstream and up to 5 Mbps upstream.

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c. Voice Services

TWC serves approximately 5.3 million residential and business voice customers. TWC's broadband infrastructure has enabled it to deploy interconnected VoIP services throughout its geographic footprint. Indeed, TWC was the first multi-system cable operator – and one of the first service providers – to introduce a mass-market, facilities-based VoIP service, Digital Phone, bringing a reliable, feature-rich, competitive voice alternative to millions of residential consumers. TWC's voice services offer customers unlimited local and long-distance calling throughout the United States and to Canada, Puerto Rico, and Mexico, together with a variety of calling features including call waiting, call forwarding, distinctive ring tones, and caller ID on the customer's telephone, computer, or television. TWC also provides a free web portal, VoiceZone, which allows voice customers to customize their service features, set up caller ID on personal computers, block unwanted calls, and access voicemail, all using the Internet.

d. Business Services

TWC offers a wide variety of products and services to business customers, including high-capacity transmission services (such as Metro Ethernet), video, high-speed Internet, and voice services, as well as hosting and cloud computing services (through its NaviSite subsidiary), all in competition with the incumbent local exchange carriers ("ILECs") and other service providers. TWC offers these services on a retail and wholesale basis using its own network infrastructure and third-party infrastructure. TWC's retail customers consist primarily of small-and medium-sized businesses, and TWC also has made some initial strides in serving enterprise businesses with multiple locations, as well as government, education, and non-profit institutions. In addition, TWC offers wholesale transport services to wireless providers for cell tower backhaul and to other service providers. In December 2013, TWC acquired DukeNet

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Communications LLC, adding new fiber capacity to serve its business customers.

e. Advertising

TWC sells video and online advertising to local, regional, and national customers. As noted above, TWC, together with Comcast and Cox, is an owner of NCC Media.

f. Cable Programming

TWC owns and manages a number of local news channels (including Time Warner Cable News NY1), local sports channels, and local lifestyle channels.<sup>11</sup> In October 2012, TWC launched two RSNs, one in English and one in Spanish, that carry Los Angeles Lakers basketball games, as well as other regional sports programming. Some of TWC's local channels also include qualifying RSN content, including two that carry professional sports programming in Spanish and 12 others that carry local or regional college sports programming. In addition, TWC has a minority interest in SportsNet New York (26.8 percent), and provides affiliate sales, ad sales, and certain other production and technical services to (but has no ownership interest in) SportsNet LA, an RSN that carries the Los Angeles Dodgers' baseball games and other sports programming and that is owned and was recently launched by American Media Productions, LLC. TWC also has attributable interests in a national network, MLB Network (6.35 percent), and in the iN Demand programming service (29.3 percent).

III. STANDARD OF REVIEW

The Commission has stated that it will approve a transfer of control of authorizations and

licenses connected with a proposed transaction under Sections 214(a) and 310(d) of the Act if the proposed transaction does not violate a statute or rule, and if, after weighing “the potential public interest harms of the merger against any potential public interest benefits,” it concludes that, “on

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<sup>11</sup> A list of TWC's programming interests is attached as Exhibit 8.



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balance,” the transfer “serves the public interest, convenience and necessity.”<sup>12</sup> This standard involves balancing potential public interest benefits from the transfer against potential harms,<sup>13</sup> and the applicants must show “by a preponderance of the evidence, that the proposed transaction, on balance, will serve the public interest.”<sup>14</sup> In assessing the potential public interest benefits of a proposed transaction, the Commission “focuses on demonstrable and verifiable public interest

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12 Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from MediaOne Group, Inc., Transferor, to AT&T Corp., Transferee, Memorandum Opinion and Order, 15 FCC Rcd. 9816 ¶ 8 (2000) (“AT&T-MediaOne Order”); see also Applications of AT&T Inc. and Atlantic Tele-Network, Inc., Memorandum Opinion and Order, 28 FCC Rcd. 13670 ¶ 12 (2013) (“AT&T-ATN Order”); Applications Filed for Transfer of Control of Insight Commc’ns Co. to Time Warner Cable Inc., Memorandum Opinion and Order, 27 FCC Rcd. 497 ¶ 7 (2012) (“Insight-TWC Order”); Applications filed by Qwest Commc’ns Int’l Inc. and CenturyTel, Inc. d/b/a CenturyLink for Consent to Transfer of Control, Memorandum Opinion and Order, 26 FCC Rcd. 4194 ¶ 7 (2011) (“CenturyLink-Qwest Order”); Applications for Consent to the Assignment and/or Transfer of Control of Licenses from Adelphia Commc’ns Corp. (and Subsidiaries, Debtors-In-Possession), Assignors, to Time Warner Cable Inc. (Subsidiaries), Assignees, Adelphia Commc’ns Corp. (and Subsidiaries, Debtors-In-Possession), Assignors and Transferors, to Comcast Corp. (Subsidiaries), Assignees and Transferees, Memorandum Opinion and Order, 21 FCC Rcd. 8203 ¶ 23 (2006) (“Adelphia Order”); AT&T Inc. and BellSouth Corp. Application for Transfer of Control, Memorandum Opinion and Order, 22 FCC Rcd. 5662 ¶ 19 (2007) (“AT&T-BellSouth Order”).

13 See General Motors Corp. & Hughes Elec. Corp., Transferors, and News Corp., Transferee, for Authority to Transfer Control, Memorandum Opinion and Order, 19 FCC Rcd. 473 ¶ 15 (2004) (“News Corp.-Hughes Order”); see also AT&T-ATN Order ¶ 12; CenturyLink-Qwest Order ¶ 7; AT&T-BellSouth Order ¶ 19; Applications for Consent to the Transfer of Control of Licenses from Comcast Corp. and AT&T Corp., Transferors, to AT&T Comcast Corp., Transferee, Memorandum Opinion and Order, 17 FCC Rcd. 23246 ¶ 26 (2002) (“Comcast-AT&T Broadband Order”).

14 AT&T-ATN Order ¶ 12; Applications of SOFTBANK CORP., Starburst II, Inc., Sprint Nextel Corp., and Clearwire Corp. for Consent to Transfer Control of Licenses and Authorizations; Petitions for Reconsideration of Applications of Clearwire Corp. for Pro Forma Transfer of Control, Memorandum Opinion and Order, Declaratory Ruling, and Order on Reconsideration, 28 FCC Rcd. 9642 ¶ 23 (2013) (“Softbank-Sprint Order”); SkyTerra Commc’ns, Inc. Transferor, & Harbinger Capital Partners Funds, Transferee, Applications for Consent to Transfer of Control of SkyTerra Subsidiary, LLC, Memorandum Opinion and Order and Declaratory Ruling, 25 FCC Rcd. 3059 ¶ 10 (2010) (“SkyTerra-Harbinger Order”); Applications of AT&T Inc. and Centennial Commc’ns Corp. for Consent to the Transfer Control of Licenses, Authorizations, and Spectrum Leasing Arrangements, Memorandum Opinion and Order, 24 FCC Rcd. 13915 ¶ 27 (2009) (“AT&T-Centennial Order”); Applications for Consent to Transfer of Control of Licenses; XM Satellite Radio Holdings Inc., Transferor, to Sirius Satellite Radio Inc., Transferee, Memorandum Opinion and Order and Report and Order, 23 FCC Rcd. 12348 ¶ 30 (2008); News Corp. & DIRECTV Group, Inc., Transferors, and Liberty Media Corp., Transferee, Applications for Authority to Transfer Control, Memorandum Opinion and Order, 23 FCC Rcd. 3265 ¶ 22 (2008); AT&T-BellSouth Order ¶ 19; Verizon Commc’ns Inc. & MCI, Inc. Applications for Approval of Transfer of Control, Memorandum Opinion and Order, 20 FCC Rcd. 18433 ¶ 16 (2005) (“Verizon-MCI Order”); SBC Commc’ns Inc. & AT&T Corp. Applications for Approval of Transfer of Control, Memorandum Opinion and Order, 20 FCC Rcd. 18290 ¶ 16 (2005) (“SBC-AT&T Order”).



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benefits that could not be achieved if there were no merger.”<sup>15</sup> Its evaluation also includes, among other things, a “deeply rooted preference for preserving and enhancing competition in relevant markets [and] accelerating private sector deployment of advanced services . . . .”<sup>16</sup> In particular, consistent with the Commission’s broader public interest mandate, such analysis may also entail assessing whether the transaction will affect the quality of communications services or will result in the provision of new or additional services.<sup>17</sup>

The Commission’s analysis of potential harms entails both an examination of potential anticompetitive effects and an inquiry into whether the transaction would violate the Act or the Commission’s implementing rules, or otherwise substantially frustrate the Commission’s implementation or enforcement of the Act.<sup>18</sup> The Commission has repeatedly stressed that a

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<sup>15</sup> AT&T-MediaOne Order ¶ 154; see also Applications of Nextel Commcn’s, Inc. & Sprint Corp. for Consent to Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order, 20 FCC Rcd. 13967 ¶ 129 (2005) (“Sprint-Nextel Order”) (“We examine whether operation of the combined entity could yield consumer benefits unattainable absent a merger.”). In particular, the Commission’s review is confined to the transaction before it rather than the relative merit of any hypothetical alternative transactions. See, e.g., Citadel Commc’ns Co., Ltd. and Act III Broad. of Buffalo, Inc., Memorandum Opinion and Order, 5 FCC Rcd. 3842 ¶ 16 (1990) (“Section 310(d) of the Act limits our consideration to the buyer proposed in an assignment application, and we cannot consider whether some other proposal might comparatively better serve the public interest.”).

<sup>16</sup> See AT&T-ATN Order ¶ 13; Softbank-Sprint Order ¶ 24; AT&T-Centennial Order ¶ 28; CenturyLink-Qwest Order ¶ 8.

<sup>17</sup> See Applications of Comcast Corp., General Elec. & NBCUniversal, Inc. for Consent to Assign Licenses and Transfer Control of Licenses, Memorandum Opinion and Order, 26 FCC Rcd. 4238 ¶ 23 (2011) (“Comcast-NBCUniversal Order” or “NBCUniversal Order”); Comcast-AT&T Broadband Order ¶ 27; Wavecom Solutions Corp., Transferor, & Hawaiian Telcom Inc., Transferee, Applications for Consent to Transfer of Control, Memorandum Opinion and Order and Declaratory Ruling, 27 FCC Rcd. 16081 ¶ 8 (2012); Applications filed by Global Crossing Ltd. & Level 3 Commc’ns, Inc. for Consent to Transfer Control, Memorandum Opinion and Order and Declaratory Ruling, 26 FCC Rcd. 14056 ¶ 11 (2011) (“Level 3-Global Crossing Order”); CenturyLink-Qwest Order ¶ 8; see also Remarks of Jonathan Sallet, Acting General Counsel, FCC, Conference on Competition and IP Policy in High-Technology Industries, Stanford, CA (Jan. 22, 2014), available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2014/db0124/DOC-325267A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0124/DOC-325267A1.pdf).

<sup>18</sup> See News Corp.-Hughes Order ¶ 16; AT&T-MediaOne Order ¶ 9; Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Tele-Commc’ns, Inc., Transferor, to AT&T Corp., Transferee, Memorandum Opinion and Order, 14 FCC Rcd. 3160 ¶ 14 (1998) (“AT&T-Tele-Communications Order”) (“To apply our public interest test, then, we must determine whether the merger violates our rules, or would otherwise frustrate our implementation or enforcement of the Communications Act and federal communications policy. That policy is, of course, shaped by Congress and deeply rooted in a preference for competitive processes and outcomes.”).



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license transfer proceeding must focus on transaction-specific harms (and benefits) and is not an open forum for airing pre-existing disputes or industry-wide policy debates, which are better addressed, as appropriate, in separate adjudicatory or industry-wide rulemaking proceedings.<sup>19</sup>

As set forth in Section VI below, the transaction complies fully with the Communications Act and the Commission's rules. Thus, the Commission's task in reviewing this transaction is to weigh the potential public interest benefits against the potential public interest harms. As demonstrated in Sections IV and V, the proposed transaction will generate substantial public interest benefits and no public interest harms.<sup>20</sup> Accordingly, the Applicants respectfully request that the Commission approve the transaction and grant its consent to the transfer of control of TWC's licenses and authorizations to Comcast.

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<sup>19</sup> See, e.g., Applications of Cellco P'ship d/b/a/ Verizon Wireless & SpectrumCo LLC and Cox TMI, LLC for Consent to Assign AWS-1 Licenses, Memorandum Opinion and Order and Declaratory Ruling, 27 FCC Rcd. 10698 ¶ 89 (2012) ("We also find that any issues of interoperability in the Lower 700 MHz band raised by commenters are not transaction-related. The interoperability issues in the Lower 700 MHz band long predate these transactions. Further, the Commission has already initiated a rulemaking proceeding earlier this year to address these issues on an industry-wide basis."); AT&T-Centennial Order ¶ 141 ("We find that the proposed conditions prohibiting exclusive handset arrangements are not narrowly tailored to prevent a transaction-specific harm, but apply broadly across the industry and are more appropriate for a Commission proceeding where all interested industry parties have an opportunity to file comments. RCA filed a petition asking the Commission to review exclusive handset agreements on an industry-wide basis, and the Commission will be able to develop a comprehensive approach on handset exclusivity based on a full record in that proceeding.") (internal citations omitted); AT&T-BellSouth Order ¶ 56 n.154 ("To the extent commenters allege that . . . contracts of the type used by AT&T and BellSouth are anticompetitive in general, this is not a merger-specific harm, but rather is an issue that has been raised, and is better addressed, in the Commission's pending special access rulemaking."); Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee, Memorandum Opinion and Order, 16 FCC Rcd. 6547 ¶ 6 (2001) ("AOL-Time Warner Order") ("It is important to emphasize that the Commission's review focuses on the potential for harms and benefits to the policies and objectives of the Communications Act that flow from the proposed transaction – i.e., harms and benefits that are 'merger-specific.' The Commission recognizes and discourages the temptation and tendency for parties to use the license transfer review proceeding as a forum to address or influence various disputes with one or the other of the applicants that have little if any relationship to the transaction or to the policies and objectives of the Communications Act.").

<sup>20</sup> Applicants recognize that the Commission must conduct its own evaluation and make its own judgment, after hearing from interested parties. Applicants will cooperate in that process and invite a constructive dialogue that addresses any legitimate issues. At the same time, merger proceedings too often are used by various parties as a forum to advance imagined and even contrived grievances, and such tactics must not be permitted to obstruct or delay the Commission's processes.



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IV. THE TRANSACTION IS PRO-CONSUMER, PRO-COMPETITIVE, AND WILL GENERATE SUBSTANTIAL PUBLIC INTEREST BENEFITS.

A. Overview

1. Applicants Compete in a Dynamic, Expanding, and Highly Competitive Marketplace.

The combination of Comcast and TWC will create a world-class communications, media, and technology company significantly better positioned than either company alone to bring consumers the advanced services they want now and will need in the future and to keep America at the forefront of technology and innovation.

This is no longer the media and communications industry of the 1992 Cable Act or the 1996 Telecommunications Act, or even the industry that the FCC and antitrust agencies analyzed in the Comcast-AT&T Broadband and Adelphia merger proceedings or in the Comcast-NBCUniversal transaction four years ago. Rather, it is a larger, more complex, and multifaceted ecosystem, in which an array of sophisticated companies with national or even global footprints offer stiff competition for all or key components of Comcast's and TWC's businesses. Established satellite providers are evolving, as are the major telco companies, which have the benefit not only of robust wireline footprints, but also of national wireless platforms. As Verizon's CFO recently noted, "I'm the fifth largest cable company now. I also have something that cable doesn't have, which is 100 million eyeballs on wireless devices."<sup>21</sup> Indeed, Verizon has indicated that it intends to add a wireless video product that can bring "24-hour linear

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<sup>21</sup> Fran Shammo, EVP & CFO, Verizon, Deutsche Bank Media, Internet and Telecom Conference, Tr. at 15 (Mar. 10, 2014). AT&T's CFO similarly stated: "[T]he advantage for us is that opportunity for over-the-top for the whole 65 million broadband connections we have may be so attractive that it allows us to shift gears or take risks with regard to our traditional subscription model on our 5.4 million customers. We're committed to our U-verse video that's gone well, but we do have flexibility in our space just because of the amount of broadband customers and connections we have that don't have a subscription on it today." John Stephens, CFO, AT&T, Inc., Deutsche Bank Media, Internet & Telecom Conference, Tr. at 11 (Mar. 12, 2014).

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programming” to wireless devices.<sup>22</sup> Today, Google increasingly competes as a network, video, and technology provider; Apple tablets now serve as a viewing platform for IP cable services even while Apple offers an online video service, Apple TV, and explores development of an Apple set-top box; Microsoft just announced that it will feature ads on the Xbox One, creating a new video advertising platform; and Amazon continues to leverage its unequalled sales platform and family of competitive tablets to promote its burgeoning Prime Instant Video business, and just last week announced the rollout of its own advanced video set-top box.<sup>23</sup>

In contrast to all of these companies, both Comcast and TWC have a more limited scale and scope, as reflected in their relative market capitalizations and revenues.

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<sup>22</sup> Fran Shammo, EVP & CFO, Verizon, Deutsche Bank Media, Internet and Telecom Conference, Tr. at 15 (Mar. 10, 2014).

<sup>23</sup> See Greg Bensinger & Shalini Ramachandran, Amazon Unveils Video-Streaming Device Fire TV, Wall St. J., Apr. 2, 2014, <http://online.wsj.com/news/articles/SB10001424052702304441304579477283348851844>.



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To meet these challenges, Comcast has fundamentally transformed itself over the last decade from a regional cable company to a leading communications, media, and technology company. By investing heavily in talent, research and development, and in the infrastructure needed to facilitate creativity and invention, Comcast has created a culture of innovation. Comcast now employs over 1,000 engineers and developers, and vigorously competes for new engineering talent with the likes of Google, Apple, Facebook, Netflix, Microsoft, and Twitter.<sup>24</sup> Its single-minded focus on enhancing its services and pursuing innovation have earned it first place among cable and satellite providers on Fortune Magazine's list of World's Most Admired Companies – up from third place.<sup>25</sup> The transaction will enable the company to continue to meet the challenges ahead in this increasingly dynamic, expanding, and competitive marketplace, and to ensure that customers enjoy all the benefits that Comcast and TWC have offered to date and stand ready to deploy in the future.

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<sup>24</sup> Comcast's research and development efforts involve highly-talented individuals at its technology centers around the country, including in Seattle, Silicon Valley, Denver, Washington, DC, and Philadelphia.

See Comcast – Most Admired Companies, Fortune, <http://money.cnn.com/magazines/fortune/most-admired/2014/snapshots/5035.html> (last visited Apr. 4, 2014).

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2. The Key Economic Drivers of the Transaction Will Produce Substantial Benefits.

As the attached economic analyses of Drs. Rosston and Topper and Dr. Israel make clear, a few powerful economic mechanisms will drive the core competitive benefits from the transaction: (a) economies of scale, (b) expanded geographic reach, and (c) sharing of technologies and services. Scale efficiencies are key. As Drs. Rosston and Topper explain: “Scale can make the difference between investing in a new product or service and not investing, and it can accelerate the introduction of products, services, and network and equipment enhancements.”<sup>26</sup> Dr. Israel echoes this analysis and conclusion, noting that “[w]hen investments have the character that some or all of the costs are ‘fixed’ – meaning costs that do not grow as the investment is extended to a larger scale (or at least do not grow proportionally to the increase in scale) – then greater scale will lead to greater revenue without proportionally greater costs. As a result, more investments will meet the hurdle rate and thus more investments can profitably be undertaken, increasing the firm’s incentive to invest in innovative new services.”<sup>27</sup> Dr. Israel also explains why scale is an even more effective driver of efficiencies and benefits in this transaction in light of Comcast’s business model:

Specific features of Comcast’s business model heighten the investment and innovation benefits from greater scale. In particular, Comcast generally deploys products in a relatively homogeneous manner throughout a region and often throughout its entire footprint. Therefore, it is relatively easy for Comcast to serve potential new customers in a consistent manner, and there are substantial scale economies in serving an area where Comcast has an existing plant.<sup>28</sup>

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<sup>26</sup> Declaration of Dr. Gregory L. Rosston and Dr. Michael D. Topper (“Rosston/Topper Decl.”) ¶ 10, attached as Exhibit 5.

<sup>27</sup> Declaration of Dr. Mark A. Israel (“Israel Decl.”) ¶ 107, attached as Exhibit 6.

<sup>28</sup> Id. ¶ 108.

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As shown above, communications technologies and services have rapidly advanced, and the cable industry has built out and matured. In the current environment, fixed cost investments in developing new and compelling digital technologies have become more important. As Drs. Rosston and Topper state, “since cable operators now pass the vast majority of homes in their respective franchise areas, they increasingly need to compete for customers with satellite companies, telcos, and other distributors by making investments in the development of new platforms and services and upgrading their networks, all of which have large fixed costs.”<sup>29</sup> Moreover, even though some technologies would still be developed gradually even by companies without the benefit of larger scale, “having a larger scale can accelerate investment in development and deployment of new technology [and] . . . may make it profitable to hire more developers and engineers and thereby achieve the same technological improvement in less time.”<sup>30</sup>

Second, the expanded geographic reach and additional geographic clustering made possible by a combination of firms will also increase the economic efficiencies by enhancing the ability of the combined entity to serve customers whose needs span the existing geographic footprints of the two firms. “In addition, geographic agglomeration can lead to operating efficiencies and the ability to provide higher quality services to customers in certain geographic areas.”<sup>31</sup>

Third, by combining their portfolios of products and services, the companies will be able to provide more products and services at lower cost than they would be able to do on their own. It will be more efficient for Comcast and TWC to provide these services as a combined company

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29 Rosston/Topper Decl. ¶ 45.

30 Id. ¶ 48.

31 Id. ¶ 58.

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because the two firms use similar inputs in creating these services. In addition, each company brings proprietary technology and specialized knowledge about providing its unique mix of products and services.<sup>32</sup>

Each of the foregoing economic bases for efficiencies and synergies is strongly present in this transaction. For example, by adding TWC's customers and markets, Comcast will expand its video subscriber base by 8 million customers (after divesting 3 million customers), for a total of approximately 30 million video subscribers in the systems it manages. The incremental scale will promote continued innovation by providing a broader base of customers across which to spread the high fixed costs of research and development.

Moreover, this increased presence will provide equipment manufacturers, app developers, programmers, and other companies with increased incentive to take chances on new technology projects with the combined company, and to do so on reasonable terms. For example, it is far easier to attract developers to build applications for national or global platforms such as Apple TV, Google, Microsoft, and Sony, than to create an app for a limited regional platform – or to convince a manufacturer to embed a tailored feature that has nationwide appeal, than one that has localized, geographically constrained appeal.<sup>33</sup> In short, larger scale and scope will help the combined company attract more collaborators and partners more easily throughout the ecosystem.

The Commission has previously recognized that scale can be an important driver of increased innovation and consumer benefits:

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32 See id. ¶¶ 65-68.

33 See id. ¶ 56 (“In addition, the larger scale enabled by the transaction should make the combined company a more attractive partner for device manufacturers seeking to provide apps to deliver video services on a wider range of third-party devices and technology firms seeking to deliver video to consumers in new, innovative ways. Having a larger potential customer base makes developing these apps and services more feasible for Comcast and more appealing for the partnering company.”).

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We also agree with the Applicants that the greater scale and scope of the merged entity is likely to spur new investment. The development and deployment of new technologies often entails a significant up-front, fixed investment. The merged company should have a greater ability to spread those fixed costs across a larger customer base, which should in turn foster incentives for investment by the merged entity, as well as other businesses that seek to sell equipment, technology, and services to the merged entity.<sup>34</sup>

One need look no further than what Comcast has been able to accomplish with the scale it gained from the AT&T Broadband and Adelphia transactions, which contributed significantly to the technological innovation Comcast has already introduced. With greater scale in a far more demanding and capital-intensive marketplace, a combined Comcast-TWC will be able to drive even more innovation and consumer benefits over the next decade – and beyond.

The transaction will also provide the geographic efficiencies that Drs. Rosston, Topper, and Israel describe. Post-transaction, Comcast will reach additional markets in which it previously had limited or no presence (e.g., New York City, Los Angeles, Dallas/Fort Worth). And the transaction will provide Comcast with access to several markets that are clustered near its existing markets (e.g., Georgia, South Carolina, North Carolina, and Virginia). This will allow Comcast to more efficiently deploy and upgrade its broadband facilities, by potentially investing, for example, in new Converged Regional Access Networks (“CRANs”) supported by

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<sup>34</sup> Comcast-AT&T Broadband Order ¶ 184; see also GM-News Corp. Order ¶ 344 (“Based on the evidence presented by Applicants, we believe that the transaction is likely to enable the merged entity to achieve certain economies of scale and scope, particularly in R&D, that absent the transaction the parties individually could not have achieved.”); AT&T-BellSouth Order ¶ 214 n.594 (“We find . . . that the increase in scale and scope arising from the merger will help the merged entity to better spread the costs of, and internalize the benefits of, its R&D, thus increasing its incentives to invest.”). The benefits from scale in the development of broadband Internet access have also been recognized by the Antitrust Division of the Department of Justice. See Ex Parte Submission of the U.S. Dep’t of Justice, GN Docket No. 09-51, at 29-30 (Jan. 4, 2010) (“These broad goals are best served by promoting competition in broadband markets. In practice, this does not mean striving for broadband markets that look like textbook markets of perfect competition, with many price-taking firms. That market structure is unsuitable for the provision of broadband services, which involve very substantial fixed and sunk costs. Rather, promoting competition is likely to take the form of enabling additional entry and expansion by wireless broadband providers, applying other appropriate policy levers, and spurring competition among broadband providers by improving the information available to consumers about the service offerings in their areas.”).

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additional regional data centers – an expense that might not have been justified by either company’s individual network assets (or customers) in a particular area.

As set forth in the Declaration of Michael J. Angelakis, Comcast Vice Chairman and Chief Financial Officer, these economic drivers will provide the combined company with a greater ability to invest and innovate, not only to serve its existing customers better, but also to respond effectively to new competitive dynamics.<sup>35</sup> In addition, the transaction should result in cost savings and other synergies worth approximately \$1.5 billion in increased earnings before interest, taxes, depreciation, and amortization, within three years, and recurring every year thereafter.<sup>36</sup> This is a conservative estimate and does not take into account future revenue-generating opportunities.<sup>37</sup>

These savings will provide the combined company additional wherewithal to invest across its diverse products and services, including in video, business services, and voice. But nowhere else will these savings translate into more renewed investment than in the capital-intensive area of broadband.<sup>38</sup> As economist Ev Ehrlich has aptly observed, “Comcast’s offerings will not only improve service to TWC’s customers, but it will make the combined company a better competitor and innovator in the competitive cage match in which providers of connectivity, devices, apps, services and content fight for a share of the value the broadband world creates.”<sup>39</sup>

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35 Declaration of Michael J. Angelakis (“Angelakis Decl.”) ¶¶ 12-13.

36 Id. ¶ 6. The transaction is also expected to result in approximately \$400 million in capital expense efficiencies. See id. 8.

37 Id. ¶ 9.

38 Id. ¶¶ 21-25 .

39 Ev Ehrlich, Who Holds the Cards Online, San Jose Mercury News, Mar. 7, 2014, available at [http://www.mercurynews.com/opinion/ci\\_25291788/ev-ehrllich-who-holds-cards-online](http://www.mercurynews.com/opinion/ci_25291788/ev-ehrllich-who-holds-cards-online) (calculating that “[t]he (average weighted) rate of profit on sales for ‘providers’ is 3.7 percent, versus 24.4 percent for ‘residers’”).

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While TWC announced earlier this year a multi-year plan to upgrade its network and enhance its services,<sup>40</sup> Comcast's stronger balance sheet, together with efficiencies generated by the transaction, and Comcast's experience in converting its own plant to all-digital over a compressed time frame, will ensure that the combined company is better positioned to efficiently and expeditiously upgrade the TWC systems, and with minimum disruption to the customer experience. And Comcast is committed to adding substantial incremental investments to what TWC had planned for broadband upgrades and enhancements over the next three years.

As detailed below, the above-described efficiencies and synergies of this transaction are not just theoretical. Rather, Comcast is committed to putting them to work to forge a faster path to all-digital systems, higher broadband speeds, more advanced video and voice services, a more secure network, better system reliability, and other benefits to consumers, businesses, and the public interest generally. The transaction will also extend a variety of other public interest benefits to the TWC markets, including conditions and commitments resulting from the NBCUniversal transaction, as well as Comcast's deep commitment to broadband adoption, diversity, accessibility, and cybersecurity. This array of benefits would not be achieved as expansively or as quickly without the transaction.

B. Consumers Will Benefit Directly from Advances in Broadband, Video Technologies, Digital Voice, and Other Innovations to Residential Services.

1. The Transaction Will Accelerate Broadband Deployment, Increase Broadband Competition and Innovation, and Expand Broadband Adoption.

President Obama has described broadband as "essential to the Nation's global competitiveness in the 21st century, driving job creation, promoting innovation, and expanding

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<sup>40</sup> Mike Farrell, TWC Unveils Three-Year Ops Plan, Multichannel News, Jan. 30, 2014, available at <http://www.multichannel.com/cable-operators/twc-unveils-three-year-ops-plan/147999>.

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markets for American businesses.”<sup>41</sup> FCC Chairman Wheeler similarly has said that “[b]roadband networks are essential to our national well-being” – a view embraced by his fellow commissioners.<sup>42</sup> And both the President and Chairman have emphasized the benefits that the protections of the Open Internet rules provide for broadband deployment, adoption, investment, and innovation. Comcast and TWC have invested billions of dollars to build broadband networks that are “essential to our national well-being” and “the Nation’s global competitiveness in the 21st century.” But the additional investments and innovations that are needed now to deliver the services consumers demand and need will be more rapidly, effectively, and efficiently achieved by the combined company than either company could achieve alone.

- a. The Transaction Will Help Fulfill the Goal of Greater Deployment of Even Better Broadband Service for More Americans.

In 1996, Congress instructed the Commission to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability [i.e., broadband] to all Americans.”<sup>43</sup> Congress authorized the Commission to “accelerate deployment of such

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<sup>41</sup> Exec. Order No. 13616 (June 14, 2012), available at <http://www.whitehouse.gov/the-press-office/2012/06/14/executive-order-accelerating-broadband-infrastructure-deployment>; see also Office of the Press Secretary, Statement from the President on the National Broadband Plan (Mar. 16, 2010), available at <http://www.whitehouse.gov/the-press-office/statement-president-national-broadband-plan> (“America today is on the verge of a broadband-driven Internet era that will unleash innovation, create new jobs and industries, provide consumers with new powerful sources of information, enhance American safety and security, and connect communities in ways that strengthen our democracy. . . . Expanding broadband across the nation will build a foundation of sustained economic growth and the widely shared prosperity we all seek.”).

<sup>42</sup> Prepared Remarks of Tom Wheeler, Chairman, FCC, at the Computer History Museum, Mountain View, CA (Jan. 9, 2014), available at <http://www.fcc.gov/document/fcc-chairman-tom-wheeler-remarks-computer-history-museum>. Commissioner Jessica Rosenworcel observed that “[n]o matter who you are or where you live, prosperity in the twenty-first century will require access to broadband.” Statement of Commissioner Jessica Rosenworcel, Subcommittee on Communications and Technology, Oversight of the Federal Communications Commission (July 10, 2012), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-315077A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-315077A1.pdf). Recognizing the “transformative impact of broadband,” Commissioner Ajit Pai has similarly observed that, “[n]ext-generation networks could revolutionize everything from health care to education” and “will also allow our businesses to become more productive, and our country to become more competitive in the global economy.” Remarks of FCC Commissioner Ajit Pai, Looking Back and Looking Ahead: The FCC and the Path to the Digital Economy (July 25, 2013), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-322384A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-322384A1.pdf).

<sup>43</sup> 47 U.S.C. § 1302(a).



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capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”<sup>44</sup> Thanks to private investment and government policies, a staggering amount of progress toward achieving these goals has occurred, but more remains to be done, and can be done, on an accelerated basis over the next several years.

Approval of this transaction would accelerate the deployment of advanced telecommunications capabilities and promote more infrastructure investment in very concrete ways, as described below. The Commission need not rely here on what some have called a “triple cushion shot” chain of reasoning to link its actions to the Congressional objective.<sup>45</sup> Rather, this transaction provides the Commission an opportunity for a direct strike into the corner pocket – unleashing the combined company’s deployment of advanced broadband services and broadband infrastructure investments.

**Faster Broadband Speeds.** Comcast has invested substantially in advanced broadband technology, system upgrades, and innovative services to meet consumer demand and increased use of broadband. Those investments exceed {{{ since 1996 alone. For example, Comcast invested over a billion dollars to deploy DOCSIS 3.0 and migrate its systems to all-digital. As a result of its commitment to a full network upgrade, Comcast has deployed some of the industry’s fastest speeds<sup>46</sup> – both upstream and downstream. As the graph below shows, Comcast has increased Internet speeds 12 times in the past 12 years, with Comcast’s top

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44 Id. § 1302(b).

45 See *Verizon v. FCC*, 740 F.3d 623, 659-60 (D.C. Cir. 2014).

46 See FCC, Office of Eng’g & Tech. & Consumer & Governmental Affairs Bureau, *A Report on Consumer Wireline Broadband Performance in the U.S.* (Feb. 2013), available at <http://www.fcc.gov/measuring-broadband-america/2013/February#Chart1>; Ookla, *Comcast Broadband Performance*, <http://www.speedtest.net/isp/comcast> (last visited Mar. 30, 2014).

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residential broadband speed increasing more than 30-fold since just five years ago.<sup>47</sup> Due to its past and ongoing investments in network infrastructure, Comcast will have the network capacity to continue to increase speeds over time.

XFINITY Internet Speeds 2002 – 2014:  
Increased Speeds 12 Times in 12 Years

This is no accident: The company is philosophically committed to making the investments necessary to ensure that its network is not only robust for today's needs but capable of evolving to meet tomorrow's consumer and business demand. Over one-third of Comcast customers are on speed tiers with speeds of 50 Mbps/10 Mbps or more. More generally,

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<sup>47</sup> As broadband speeds have increased again and again and again, Comcast has consistently reduced the average price Comcast's customers pay on a per-Megabit basis.

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Comcast historically has doubled the size of its broadband network capacity every 18 months.<sup>48</sup> In 2013 alone, Comcast added over {{ }} optical nodes, effectively doubling the capacity to customers in neighborhoods served by these nodes.

Comcast's commitment to providing cutting-edge broadband services recently earned it a 2013 Best Practice Award from Frost and Sullivan, which ranked Comcast first among all North American broadband providers in "Technology Innovation."

TWC too has invested significantly in advanced broadband technologies like DOCSIS 3.0, and has upgraded its network to bring faster speeds. Nevertheless, its transition to all-digital technology, which is necessary to free up the additional bandwidth needed to provision higher speeds, is complete in only approximately 17 percent of its footprint.<sup>49</sup> In contrast, Comcast undertook a five-year effort to transition to all-digital, which it completed ahead of schedule in 2012. As a result of this transition, Comcast typically bonds 8 QAM channels together in its systems, and its most popular speed tier is 25 Mbps downstream and 5 Mbps upstream across its footprint. TWC, meanwhile, bonds only 4 QAM channels in nearly half its systems (only a little over a third of the TWC systems bond 8 QAM channels), and its most popular speed tier is 15 Mbps downstream and 1 Mbps upstream in most areas.

Put differently, both companies ensure that customers have access to basic broadband service: [[ ]] percent of Comcast customers and [[ ]] percent of TWC customers enjoy downstream speeds of at least 3 Mbps, based on December 2013 data.<sup>50</sup> The companies diverge

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48 See David L. Cohen, White House Reports on U.S. Broadband Successes and Challenges, Comcast Voices (June 17, 2013), <http://corporate.comcast.com/comcast-voices/white-house-reports-on-u-s-broadband-success-and-challenges>.

49 See Ian Olgeirson, Charter, Time Warner Cable Lag in All-Digital Push To Convert CapEx into Capacity, SNL Kagan (Jan. 17, 2014).

50 Israel Decl. ¶ 168 n.225. These and other speed calculations are based on Applicants' December 2013 Form 477 data.

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at the higher downstream speeds, however: [[ ]] percent of Comcast customers have downstream speeds of 25 Mbps or above, while only [[ ]] percent of TWC customers enjoy those speeds.<sup>51</sup> A similar differential in upstream speeds is also notable: As of December 2013, [[ ]] percent of Comcast’s broadband customers and only [[ ]] percent of TWC’s customers had upstream connection of at least 3 Mbps.<sup>52</sup> Comcast also has deployed significantly more DOCSIS 3.0 modems than TWC – [[ ]] (approximately [[ ]] percent of Comcast customers) compared to TWC’s [[ ]] (approximately [[ ]] percent of TWC customers).

Broadband Speed Summary		
Speed Category	Comcast	TWC
≥ 3 Mbps downstream		
≥ 25 Mbps downstream		
≥ 3 Mbps upstream		
Percentage of Customers with DOCSIS 3.0 Modems		

In these and other respects, there is no doubt that customers in the TWC markets will benefit directly from the substantial upgrades that Comcast intends to make (and has the expertise and resources to make) to the TWC broadband service. While TWC recently announced plans to upgrade its broadband speeds to 75 percent of its footprint over three years,

<sup>51</sup> Id. ¶ 168 tbl. 2.

<sup>52</sup> Id. ¶ 169 tbl. 3. While TWC’s upstream speeds are more than adequate for current uses, the applications of tomorrow may require even more upstream capacity. For example, today Skype recommends 1.5 Mbps upstream speed for HD-quality video calls. See How Much Bandwidth Does Skype Need, Skype, <https://support.skype.com/en/faq/FA1417/how-much-bandwidth-does-skype-need> (last visited Mar. 30, 2014). The upstream speed differential between Comcast and TWC is even more pronounced at the highest end tiers, with Comcast’s fastest widely available residential broadband tier offering upstream speeds up to 100 Mbps while TWC’s fastest tiers offer 5 Mbps upstream.



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Comcast intends to extend its higher speeds and related consumer benefits to the TWC systems on an accelerated and more cost-efficient basis than TWC could accomplish on its own. The goal would be to bring the TWC services up to Comcast levels. Thus, for example, TWC customers currently on the 15 Mbps/1 Mbps tier would see their speeds increase to 25 Mbps/5 Mbps.<sup>53</sup>

And none of this accounts for the next generation of upgrades the combined company would bring to consumers across its footprint in the next few years. Comcast is actively pursuing next-generation technologies that will provide additional significant speed benefits to its broadband customers. It already has plans to invest significantly in capacity and network-related initiatives over the next three years; post-transaction, TWC's systems will be part of those plans (at appropriate incremental levels of investment), and the company as a whole will be able to scale these investments more efficiently.<sup>25</sup>

CCAP. Converged Cable Access Platform ("CCAP") is a new technology that will enable Comcast to bond 16 or more downstream QAM channels and 8 upstream QAM channels to deliver downstream speeds in excess of 250 Mbps and upstream speeds in excess of 50 Mbps over Comcast's existing HFC network plant. Comcast has begun deployment of CCAP technology and will have it deployed to about [[]] percent of its footprint by the end of this year, [[]] percent by the end of 2015, and 100 percent in 2016. TWC currently is deploying CCAP technology to several markets (including New York and Los Angeles), and has announced plans to do so to 75 percent of its footprint in the coming years. This transaction will

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Angelakis Decl. ¶ 23

54 Id. ¶¶ 22-23.

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enable Comcast to bring CCAP-enabled Cable Modem Termination Systems (“CMTSes”) to all of TWC’s customers, and more quickly than TWC could alone.

DOCSIS 3.1. The CCAP technology upgrades, in turn, will facilitate the deployment of the next generation of cable modem technology – DOCSIS 3.1 – which Comcast expects to start deploying soon after the expected finalization of the specifications in 2015 (assuming equipment availability), ahead of any other broadband provider. DOCSIS 3.1 technology will be capable of delivering speeds of several Gigabits per second. This is the most economically scalable broadband architecture in the marketplace, and it will take advantage of Comcast’s (and, with this transaction, TWC’s) substantial infrastructure investments over the past decade. The broader scale afforded by the larger combined company will mean that ultra-fast broadband capability made possible by DOCSIS 3.1 will be deployed not only more quickly to the acquired TWC systems than it would be otherwise, but also on a more cost-efficient basis across the combined company’s footprint.<sup>55</sup>

As it plans for the DOCSIS 3.1 rollout, Comcast continues to innovate. Last year, for example, Comcast demonstrated that its network is capable of delivering 3 Gbps downstream.<sup>56</sup>

It also successfully trialed the first 1 Terabit connection on a portion of its network from Ashburn, VA to Charlotte, NC.<sup>57</sup> This is believed to be the first trial in which live data traffic was carried at this speed on an existing, commercial network.<sup>58</sup> Approval of the transaction will

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<sup>55</sup> Id. ¶¶ 23-24.

<sup>56</sup> See Press Release, Comcast Corp., The Future of Broadband Speed and 4K Ultra HD Video (June 11, 2013), <http://corporate.comcast.com/news-information/news-feed/comcast-demonstrates-the-future-of-broadband-speed-and-4k-ultra->

<sup>57</sup> See Press Release, Ciena Corp., Comcast Conducts Industry’s First Live 1 Terabit Network Trial with Ciena’s 6500 Converged Packet Optical Solution (Oct. 22, 2013), <http://www.ciena.com/about/newsroom/press-releases/Comcast-Conducts-Industrys-First-Live-1Terabit-Network-Trial-with-C>

<sup>58</sup> Id.

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allow TWC customers to benefit from Comcast's investments and culture of innovation and experimentation.

Backbone Investments. The scale and geographic efficiencies created by the transaction will facilitate Comcast's continued investment in and deployment of its backbone and dark fiber network, and may even accelerate these efforts. Comcast and TWC have independently developed their own national core backbone infrastructure. By combining the companies' core networks, the transaction will lead to additional innovations around capacity and architecture that will allow Comcast to reach more commercial customers on a single network with potentially reduced latency for national enterprise customers.<sup>59</sup> The additional scale facilitated by the merger may accelerate Comcast's contemplated upgrades to its national backbone infrastructure. Moreover, where Comcast has systems in geographic proximity to those of TWC systems, the transaction should make it profitable for Comcast to invest in new CRANs supported by new regional data centers.<sup>60</sup> Such investments would improve the quality of the network to the benefit of residential and business customers, as well as edge providers, through, among other things, improved scalability and resiliency of the network, lower latency through the deployment of more fiber, and increased points of interconnection.<sup>61</sup>

Broadband Promises Made, Promises Kept. In its prior transactions with AT&T Broadband and Adelphia, Comcast explained how the increased scale and synergies made possible by those mergers would lead to substantial consumer benefits in terms of accelerated deployment of advanced digital services and increased network investment, among other things.

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59 Israel Decl. ¶ 187.

Id. ¶ 188; Rosston/Topper Decl. ¶ 60.

61 Israel Decl. ¶ 189; Rosston/Topper Decl. ¶ 101 n.98.



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The Commission recognized those benefits and approved both transactions,<sup>62</sup> and Comcast followed through on each of its investment and deployment commitments, often exceeding them.

For example, after the Commission approved its acquisition of AT&T Broadband at the end of 2002, Comcast invested over \$8 billion in capital improvements to upgrade its cable systems and build out a record 53,000 miles of fiber during 2004. Not only did Comcast meet every upgrade target, but it also exceeded its already aggressive construction plans by over 15 percent, thus ensuring that 99 percent of its customers had access to a two-way broadband network.<sup>63</sup> After its acquisition of customers from Adelphia, Comcast invested billions to bring the systems it acquired up to Comcast's standards, and did so in record time. Since then, Comcast has continued to transform its network again and again. This is its modus operandi and its reputation, and it will do the same in TWC areas.

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62 See, e.g., Comcast-AT&T Broadband Order ¶ 183 (“We agree with Applicants that the merged entity is likely to accelerate the deployment of broadband services in AT&T service areas. . . . Comcast appears to have a greater ‘ability to manage an accelerated program for upgrading its plant while maintaining its operating margins.’ We believe that applying this expertise to the AT&T cable systems is likely to have a positive impact on the deployment of broadband to AT&T subscribers that currently do not have access to those services.”) (citation omitted). Comcast and TWC each demonstrated this to the Commission in 2006. See Adelphia Order ¶ 256 (“[W]e find it more likely than not that the proposed transactions will have a positive impact on the deployment of certain advanced services to Adelphia subscribers.”); id. ¶ 257 (“We also find it likely that Comcast and Time Warner will improve the quality and availability of advanced services on Adelphia’s systems and that Adelphia subscribers will benefit from the transactions in this regard. Comcast’s and Time Warner’s timely deployment of advanced services on their own systems, especially those systems that Comcast acquired from AT&T Broadband, suggests that they will further deploy advanced video services, facilities-based telephony service, and high-speed Internet service on Adelphia’s systems. We also find that the Applicants have provided sufficient information to conclude that the upgrades likely will occur in the near future.”).

63 See Applications for Consent to the Assignment and/or Transfer of Control of Licenses from Adelphia Commc’ns Corp. (and Subsidiaries, Debtors-In-Possession), Assignors, to Time Warner Cable Inc. (Subsidiaries), Assignees, Adelphia Commc’ns Corp., (and Subsidiaries, Debtors-In-Possession), Assignors and Transferors, to Comcast Corp. (Subsidiaries), Assignees and Transferees, Applications and Public Interest Statement of Adelphia Commc’ns Corp., Comcast Corp., and Time Warner Inc., MB Docket No. 05-192, at 33 (May 18, 2005). In recognition of these and other achievements, Comcast was named Operator of the Year by Multichannel News in 2003. Mike Farrell, Bigger. Better, Multichannel News, Sept. 28, 2003, available at <http://bit.ly/110rqC6> (noting that, with respect to the upgrade of the former AT&T systems, Comcast “outperformed even its own stated expectations”).

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More recently, Comcast has met or exceeded the broadband-related commitments it made

in the NBCUniversal transaction.<sup>64</sup> In particular:

- Comcast surpassed the NBCUniversal Conditions' three-year build-out milestones by (i) expanding its broadband network by approximately 6,300 miles (the Conditions required 4,500 miles over three years),<sup>65</sup> and (ii) extending its broadband plant to over 715,000 additional homes (the Conditions required 400,000). Comcast extended its broadband infrastructure to 33 communities in 2011, exceeding its six-community commitment.
- Comcast has also exceeded the requirement to offer a broadband tier of at least 12 Mbps downstream speed (and 5 Mbps upstream) in all Comcast DOCSIS 3.0 markets. The "Performance" tier in all markets is 25/5 Mbps speed, and a 105 /20 Mbps tier is available in almost the entire footprint.
- Comcast added courtesy broadband and video accounts to over 650 schools, libraries, or other community institutions in underserved areas (the Conditions required 600).<sup>66</sup>

Now in a more dynamic, competitive, and far more resource-intensive marketplace, Comcast is poised – through the proposed acquisition of TWC – to revamp existing networks yet again, and to bring even greater benefits to millions of consumers. Comcast's proven track record means that the Commission can be assured that Comcast will deliver on the broadband-related and other benefits it has described in connection with this transaction.

Better and More Convenient Wi-Fi In and Outside the Home. The transaction will also drive benefits through deployment of advanced Wi-Fi equipment and networks – both within and outside consumers' homes. The quality of broadband service depends not only on the "last mile" infrastructure but also the delivery of the signal through the last few yards, so the availability of high-speed Wi-Fi gateways has a significant impact on the consumer's experience.

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<sup>64</sup> Moreover, as described further in Section IV.E.1 below and detailed in Exhibit 9, Comcast has delivered on all of its commitments made in the NBCUniversal transaction.

<sup>65</sup> Third Annual Report of Compliance with Transaction Conditions, MB Docket No. 10-56, at 19 (filed Feb. 28, 2014), <http://corporate.comcast.com/images/MB-10-56-C-NBCU-Annual-Compliance-Report-2013-2014-02-28.pdf> ("Third Annual Compliance Report").

<sup>66</sup> Third Annual Compliance Report at 20.

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Comcast has led the industry – not just the cable industry, but all broadband providers – in rolling out in-home Wi-Fi gateways that give customers the nation’s fastest wireless speeds and excellent performance over their home wireless network (these gateways are capable of speeds of up to 270 Mbps as compared to speeds of 85 Mbps from the prior generation devices).<sup>67</sup> Comcast has already deployed these gateways to approximately eight million households, where consumers now enjoy faster speeds and better performance over their home wireless network.<sup>68</sup> In contrast, TWC only recently announced plans to begin deploying advanced in-home Wi-Fi gateways. This, in part, reflects the fact that scale is important in purchasing and deploying such equipment – and even more so for investing in the next generation of the technology. So the transaction will not only ensure that TWC customers enjoy access to today’s best gateway devices, but will help position the company to offer all its customers tomorrow’s upgrades.<sup>69</sup>

The substantial broadband infrastructure investment made possible by this transaction will also lead to greater access to many more public Wi-Fi hotspots to qualified Xfinity customers – a substantial consumer benefit.<sup>70</sup> A Wi-Fi network becomes much more valuable as its coverage becomes more ubiquitous.<sup>71</sup> 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

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<sup>67</sup> See Rob Slinkard, *Newest Xfinity Wireless Gateway Powers Connected Home with the Fastest WiFi in the Nation*, Comcast Voices (Apr. 26, 2013), <http://corporate.comcast.com/comcast-voices/newest-xfinity-wireless-gateway-powers-connected-home-with-fastest-wi>

<sup>68</sup> See *id.*

<sup>69</sup> As Drs. Rosston and Topper explain, one such example of innovation arising from scale economies is whole home, cloud-based management tools, like parental controls and antivirus software, that can be implemented across all devices in the home, rather than on a per-device basis. Because the development of this technology requires significant fixed cost investments, the additional scale afforded by the transaction will allow the combined company to develop these whole home tools more efficiently. See Rosston/Topper Decl. ¶ 94.

<sup>70</sup> See Israel Decl. ¶¶ 191-92.

<sup>71</sup> Rosston/Topper Decl. ¶ 96.

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robust Wi-Fi networks in the nation to give its broadband customers more flexibility and mobility, including Wi-Fi access at public venues like sports arenas. Customers are making full use of this service. For example, in February alone, there were over [[ ]] unique users with approximately [[ ]] unique devices on the Xfinity WiFi network. Xfinity WiFi hotspots come in three different categories: (1) Outdoor (e.g., hanging off a cable wire); (2) as part of the service provided to small- and medium-sized businesses (“SMBs”); and (3) Neighborhood Hotspots (Wi-Fi residential gateways that offer a supplemental public pathway for other Xfinity users, without affecting the host customer’s service and without needing the host’s Wi-Fi password). In less than three years, Comcast has deployed approximately 870,000 Xfinity WiFi access points in its footprint (about [[ ]] of which are Neighborhood Hotspots in customers’ homes).<sup>72</sup>

Public awareness of the benefits of this early-stage initiative is increasing,<sup>73</sup> and usage is steadily growing. In fact, users connecting to Neighborhood Hotspots utilize them for longer periods of time, with their sessions lasting three times as long as sessions on Outdoor hotspots and with users consuming almost three times as much data.<sup>74</sup>

TWC has built out its own Wi-Fi network in certain of its markets (primarily in New York and Los Angeles), although to a lesser degree than Comcast, having thus far deployed only

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<sup>72</sup> See Jeff Baumgartner, Comcast Marches Towards 1 Million Wi-Fi Hotspots, Multichannel News, Mar. 5, 2014, available at <http://www.multichannel.com/distribution/comcast-marches-toward-1-million-wi-fi-hotspots/148678>. The fact that Comcast’s current Wi-Fi hotspot total has increased to this level from just 43,000 hotspots one year ago underscores the substantial investments and commitment Comcast has made to its Wi-Fi initiatives.

<sup>73</sup> Robert Channick, Comcast Turning Chicago Homes into Public Wi-Fi Hotspots, Chi. Trib., Mar. 5, 2014, available at [http://articles.chicagotribune.com/2014-03-05/business/chi-chicago-public-wifi-comcast-20140304\\_1\\_xfinity-wi-fi-moffettnat](http://articles.chicagotribune.com/2014-03-05/business/chi-chicago-public-wifi-comcast-20140304_1_xfinity-wi-fi-moffettnat)

<sup>74</sup> Overall Xfinity WiFi usage is growing. See Israel Decl. ¶ 192 (“[T]he average Comcast broadband user (excluding home subscribers in their own home) consumes approximately [[ ]] gigabytes of data per month via Wi-Fi, a figure that has increased by [[ ]] percent over the past year.”).

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29,000 Wi-Fi access points in its footprint and with no equivalent of Neighborhood Hotspots to date. To be sure, Comcast and TWC are already both part of a CableWiFi initiative that allows Comcast and TWC customers to use certain Wi-Fi hotspots in each of their respective markets. But the transaction will provide a more seamless fabric of Wi-Fi connectivity across the combined company’s footprint.<sup>75</sup> The combined company will enjoy the geographic reach, economies of scale, customer density, and return on investment needed to expand Wi-Fi hotspots across the combined footprint, in part because “Comcast will internalize the benefits of a greater number of Wi-Fi access points to legacy Comcast customers who travel in the TWC footprint, and vice versa, because offering a broad Wi-Fi footprint makes Comcast and TWC more attractive to consumers.”<sup>76</sup>

This will be an important consumer benefit in its own right, by enhancing consumers’ wireline access.<sup>77</sup> Wider availability of Wi-Fi hotspots means that customers can use advanced devices in more places, more conveniently.<sup>78</sup> In addition, ubiquitous and robust Wi-Fi has direct and tangible benefits for public safety, as was demonstrated during the Boston Marathon bombing.<sup>79</sup> The extension and expansion of the combined company’s Wi-Fi network will provide a broader platform for the “innovation and decentralized investment that has been a

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75 Angelakis Decl. ¶ 25.

76 Israel Decl. ¶ 195.

77 Non-Xfinity Internet customers can also take advantage of greater Wi-Fi availability outside the home. Comcast offers hourly, daily, and weekly Xfinity WiFi access passes for non-customers. Xfinity WiFi, Comcast Corp., <http://www.comcast.com/wifi/default.htm?SCRedirect=true> (last visited Mar. 29, 2014).

78 In addition, policymakers have acknowledged that unlicensed spectrum technologies like Wi-Fi are “vital to our economy . . . [,] have transformed the personal electronics industry, and are poised to make substantial contributions to the retail, manufacturing, and other sectors.” White House Office of Science and Technology Policy & The National Economic Council, *Four Years of Broadband Growth*, at 20 (June 2013).

79 After the Boston Marathon attack, cellular networks were overloaded. In response, “Comcast opened its network to anyone – including non-Comcast subscribers – with a Wi-Fi-enabled device to establish communications with loved ones, leading to significantly increased usage of our Xfinity WiFi network in Boston and the surrounding communities.” Hearing on State of Wireless Communications Before the S. Comm. on Commerce, Sci., and Transp., 113th Cong. (2013) (Written testimony of Thomas E. Nagel, Senior Vice President, Comcast Corp., at 6).

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hallmark of the Wi-Fi boom” across the Internet ecosystem.<sup>80</sup> As Commissioner Rosenworcel has recognized, “Wi-Fi is an essential onramp to the Internet” that “contribut[es] between \$16-37 billion to our economy annually.”<sup>81</sup>

But it could have an additional collateral benefit as well. A ubiquitous Wi-Fi network built by Comcast could make a “Wi-Fi-first” service, which combines commercial mobile radio service with Wi-Fi, a more viable alternative.<sup>82</sup> One prominent commenter has suggested this could be “a highly disruptive wireless offering,” and “a game changer.”<sup>83</sup>

b. The Transaction Will Increase Broadband Competition and Enhance the Broadband Ecosystem.

The transaction will also enhance the broadband ecosystem by spurring increased competition among broadband providers and fostering the virtuous cycle of innovation by edge providers.

i. Broadband Providers Will Be Spurred To Compete More Effectively.

The broadband market is competitive today, and this transaction will make it more so. By making the combined company a more effective competitor against traditional and emerging broadband providers, the transaction will spur other providers to act on powerful incentives to

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<sup>80</sup> See Comments of Open Technology Institute at the New America Foundation, Public Knowledge, GN Docket No. 12-354, at 9 (Dec. 5, 2013); New America Foundation, Solving the “Spectrum Crunch:” Unlicensed Spectrum on a High-Fiber Diet, at 4 (Fall 2013), available at <http://www.twcresearchprogram.com/publications.php>.

<sup>81</sup> Remarks of FCC Commissioner Jessica Rosenworcel, Wi-Fi in the 5 GHz Fast Lane, The National Press Club (Mar. 7, 2014), available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2014/db0307/DOC-325938A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0307/DOC-325938A1.pdf).

<sup>82</sup> See Israel Decl. ¶ 197 (describing potential entry by combining Wi-Fi infrastructure with a mobile virtual network operator option); Rosston-Topper Decl. ¶ 99 & n.95 (same).

<sup>83</sup> Communications Daily, Cable Operators Prepare for New Mobile Push with Verizon Wireless, Sept. 4, 2012) (quoting Craig Moffett); Mike Dano, Analyst: ‘Disruptive Wi-Fi/MVNO’ Products Coming from Cable Companies in 2014, FierceWireless (June 27, 2013), <http://www.fiercewireless.com/story/analyst-disruptive-wi-fimvno-products-coming-cable-companies-2014/2013-06-27>

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meet competition and win consumers. In response to the combined company's investments in broadband facilities, equipment, and speeds, AT&T, Verizon, CenturyLink, other ILECs, cable overbuilders, satellite providers, and wireless broadband providers will have every reason to improve and expand the quality of their broadband offerings.

Even considering only wireline ILEC Internet access service, competition is pervasive, and this does not account for cable overbuilders, satellite broadband, and wireless broadband. As shown in the map below, in 98.4 percent of Comcast and TWC's combined service areas, customers have a choice between Comcast or TWC and one or more top-10 ILEC competitors. More specifically, the orange in the map represents the combined service areas of Comcast and TWC where a top-10 ILEC offers Internet access service. The red shows the very few areas (representing about 1.6 percent of Comcast and TWC's service areas) not currently served by a top-10 ILEC.

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Service areas shown represent areas in which the top 10 ILEC providers offer fiber and/or DSL-based Internet access service of any speed. Service area boundaries have been estimated using census block data, wire center locations, and other publicly available information.

Likewise, as Dr. Israel’s report illustrates, “the vast majority of consumers have access to multiple fixed broadband competitors.”<sup>84</sup> According to recent FCC data, approximately 97 percent of households are located in census tracts where at least two or more fixed broadband providers reported offering at least 3 Mbps downstream and 768 kbps upstream, and approximately 70 percent are located in census tracts where two or more providers reported

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<sup>84</sup> Israel Decl. ¶ 43.



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offering at least 10 Mbps downstream and at least 1.5 Mbps upstream. 85 Taking into account mobile broadband, consumers have even more options. Approximately 97 percent of households are located in census tracts where three or more fixed or mobile broadband providers reported offering at least 3 Mbps downstream and 768 kbps upstream, and over 80 percent are located in census tracts where two or more providers reported offering at least 10 Mbps downstream and at least 1.5 Mbps upstream. 86

And the transaction will spur only more competition. The entire history of the broadband industry in the United States is one of competitors constantly leapfrogging each other and spurring competitive responses. Twenty years ago, narrowband, dial-up services like AOL, CompuServe, and Prodigy offered maximum speeds of 56 kbps.<sup>87</sup> Led by Comcast and TWC, among others, the cable industry then took a risk and invested billions in cable modems and network upgrades to achieve higher speeds and facilitate the delivery of innovative services. 88

Telcos responded with ADSL – vastly increasing the speeds available over the telephone plant with a dedicated connection and exploiting the transmission capacity inherent in the high-frequency portion of the loop.<sup>89</sup> Cable responded with faster speeds for cable modem service.<sup>90</sup>

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85 FCC, Internet Access Services: Status as of December 31, 2012, at fig. 5(a) (WCB Dec. 2013), [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2013/db1224/DOC-324884A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db1224/DOC-324884A1.pdf).

86 Id., fig. 5(b).

87 See generally Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, Report, 14 FCC Rcd. 2398 ¶ 31 n.31 (1999) (“First Broadband Progress Report”) (noting that “broadband Internet access was preceded by narrowband (56 kbps) Internet access”).

88 In 1998, the Office of Plans and Policy noted that cable providers had been offering for several years “high-speed data, interactive computer and other Internet-based services.” See generally Barbara Esbin, Cable Services Bureau, FCC, Internet Over Cable: Defining the Future In Terms of the Past, OPP Working Paper No. 30, at 77 (Aug. 1998), available at [http://transition.fcc.gov/Bureaus/OPP/working\\_papers/oppwp30.pdf](http://transition.fcc.gov/Bureaus/OPP/working_papers/oppwp30.pdf).

89 See generally Jonathan Kraushaar, FCC, Common Carrier Bureau, Fiber Deployment Update End of Year 1996, at 21 (1997), available at [http://transition.fcc.gov/Bureaus/Common\\_Carrier/Reports/FCC-State\\_Link/Fiber/fiber96.pdf](http://transition.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Fiber/fiber96.pdf) (noting that ADSL technology “expand[s] the capability of existing copper pairs”).

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Telcos and new entrants in turn responded with fiber-to-the-home, fiber-to-the-premises (“FTTP”), fiber-to-the-curb, and fiber-to-the-node (“FTTN”) deployments,<sup>91</sup> and cable responded again by developing and deploying higher levels of DOCSIS.<sup>92</sup> Wireless broadband providers responded to all of this with their own 3G services that offered something no other competitor could – the ability to take your broadband with you.<sup>93</sup> And they quickly followed their 3G deployments with upgrades to 4G LTE technology that now provides speeds comparable to many of the wired broadband services consumers purchase.<sup>94</sup> More recently, telcos have begun investing in gigabit networks of their own, as well as pair bonding, vectoring, and other initiatives.<sup>95</sup> The marketplace is dynamic and will continue to be; no one knows quite what the future will hold.

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90 In 1999, the Media Bureau reported to Chairman Kennard that “Cable modem deployment spurs alternative broadband technologies,” and that “cable investment inherently spurs investment in DSL and vice versa.” FCC, Cable Service Bureau, *Broadband Today: A Staff Report to William E. Kennard, Chairman, Federal Communications Commission, On Industry Monitoring Sessions Convened by the Cable Services Bureau at 33* (Oct. 13, 1999), available at <http://www.fcc.gov/Bureaus/Cable/Reports/broadbandtoday.pdf>.

91 See, e.g., *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, Fifth Report*, 23 FCC Rcd. 9615 ¶ 14 (2008) (“Fifth Broadband Progress Report”).

92 See, e.g., Mike Robuck, *DOCSIS 3.0 Arrives*, CED, Apr. 30, 2008, available at <http://www.cedmagazine.com/articles/2008/04/docsis-30-arrives>; Press Release, CableLabs, *New Generation of DOCSIS Technology* (Oct. 30, 2013), <http://www.cablelabs.com/news/new-generation-of-docsis-technology> (announcing developments in DOCSIS 3.1 specifications).

93 See *Fifth Broadband Progress Report* ¶ 70 (noting that 3G technologies made consumers “increasingly able to connect through broadband connections to the Internet when they travel”).

94 See *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, Eighth Broadband Progress Report*, 27 FCC Rcd. 10342 ¶ 6 (2012) (“Eighth Broadband Progress Report”) (noting that mobile providers are “deploying new, faster, and more spectrally-efficient mobile network technologies, most notably Long Term Evolution (LTE), which offers advertised download speeds as high as 5–12 Mbps”).

95 See, e.g., Press Release, AT&T, *AT&T to Deliver First All Fiber 1 Gigabit Broadband Network to Austin* (Oct. 1, 2013), <http://www.att.com/gen/press-room?pid=24841&cdvn=news&newsarticleid=37036&mapcode>; see also Israel Decl. ¶¶ 55-60 .

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The only certainty is that this leapfrogging is continuing and intensifying in the broadband industry. As the FCC recently affirmed,<sup>96</sup> investment in broadband shows no signs of slowing:

- Broadband capital expenditures have remained high and have even increased in recent years despite earlier upgrades (and despite challenging economic conditions), rising from \$64 billion in 2009 to \$68 billion in 2012.<sup>97</sup>
- The Progressive Policy Institute identified the telecommunications/cable industry as one of its “Investment Heroes of 2013,” including Comcast, AT&T, and Verizon, which were in the top 10 list of these major investors for the third year in a row.<sup>98</sup>
- Annual investment in U.S. wireless networks grew more than 40 percent between 2009 and 2012, from \$21 billion to \$30 billion, and exceeded investment by the major oil and gas or auto companies.<sup>99</sup>
- According to a PCIA study, private investment in wireless infrastructure over the next 5 years will generate \$1.2 trillion in economic growth and create 1.2 million jobs.<sup>100</sup>

This reality plays itself out in the day-to-day competitive marketplace in which Comcast and TWC operate. As shown above, the combined company will face nearly ubiquitous wireline broadband competition from ILECs offering DSL-based and/or fiber services, including FTTN services that rely on DSL to reach consumers’ homes. According to Dr. Israel, “[t]he competitive pressure imposed by wired telco providers is likely to increase over time as telcos

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<sup>96</sup> FCC, Fact Sheet: Internet Growth and Investment (Feb. 19, 2014), [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2014/db0219/DOC-325653A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0219/DOC-325653A1.pdf).

<sup>97</sup> See Patrick Brogan, Updated Capital Spending Data Show Rising Broadband Investment in Nation’s Information Infrastructure, USTelecom, at 1-2 (Nov. 4, 2013), <http://www.ustelecom.org/sites/default/files/documents/103113-capex-research-brief-v2.pdf>.

<sup>98</sup> See Diana G. Carew & Michael Mandel, Progressive Policy Institute, U.S. Investment Heroes of 2013: The Companies Betting on America’s Future, at 2-4 (Sept. 2013), [http://www.progressivepolicy.org/wp-content/uploads/2013/09/2013.09-Carew-Mandel\\_US-Investment-Heroes-of-2013.pdf](http://www.progressivepolicy.org/wp-content/uploads/2013/09/2013.09-Carew-Mandel_US-Investment-Heroes-of-2013.pdf).

<sup>99</sup> White House Office of Science and Technology Policy & The National Economic Council, Four Years of Broadband Growth, at 2 (June 2013).

<sup>100</sup> Press Release, PCIA – The Wireless Infrastructure Association, Wireless Infrastructure Investment Will Generate \$1.2 Trillion in Economic Activity and Create 1.2 Million Jobs (Sept. 19, 2013), <http://www.pcia.com/pcia-press-releases/601-wireless-infrastructure-investment-will-generate-1-2-trillion-in-economic-activity>.

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invest in new technologies, including FTTN and others, that improve the quality of their broadband services.”<sup>101</sup> Indeed, contrary to the picture some have painted of DSL as a defunct service, between December 2008 and December 2012, DSL-based broadband connections grew at an average annual rate of 25 percent, exceeding cable broadband’s pace of growth at an average annual rate of 18 percent.<sup>102</sup> Dr. Israel notes that “DSL is broadly deployed and the Commission considers it an effective broadband option.”<sup>103</sup> As Comcast has documented elsewhere, numerous DSL providers offer speeds equal to or exceeding the Commission’s broadband speed threshold at affordable prices.<sup>104</sup> For example, Verizon offers DSL service at speeds up to 15 Mbps, Frontier offers speeds up to 25 Mbps, and CenturyLink offers speeds up to 40 Mbps. And AT&T, CenturyLink, Frontier, and others are investing significantly in upgrading DSL service through new technologies such as VDSL2 and pair bonding.<sup>105</sup>

Consider AT&T in particular – the largest telecommunications company in the United States (by revenues). AT&T’s DSL and FTTN U-verse services significantly overlap both Comcast and TWC – with U-verse currently provisioned at speeds up to 45 Mbps downstream – and AT&T has affirmed its plans to continue to enhance and expand these services. AT&T is currently in the middle of a three-year \$6 billion investment plan (called Project Velocity IP

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101 Israel Decl. ¶ 57.

102 Id. ¶ 60. December 2012 is the most recent date for which FCC-reported data are available.

103 Id.

104 See Letter from Lynn R. Charytan, Senior Vice President, Legal Regulatory Affairs and Senior Deputy General Counsel, Comcast Corp., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 10-56, Ex. A, Pt. 3 (Feb. 21, 2014) (detailing competitive standalone HSD options in Comcast’s top 30 markets).

105 See id. CenturyLink represents the type of multifaceted investment ongoing today by wireline providers: “We have utilized and continued to utilize a balanced capital investment approach, including gigabit fiber, VDSL2, and pair bonding deployments to efficiently enable higher speeds, enhanced services to consumers and businesses in our markets.” CenturyLink, Inc., Q4 2013 Earnings Call, Tr. at 5 (Feb. 12, 2014); see also Robert W. Starr, Treasurer & SVP, Frontier Commc’ns Corp., Goldman Sachs TMT Leveraged Finance Conference, Tr. at 5 (Mar. 19, 2014) (noting Frontier is “compet[ing] against [cable] today on the residential and on the small business side and we’re taking share away from them on the residential side . . . . [W]e think that our opportunities against the cable companies continue to be a very good one.”).

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(“Project VIP”)) to expand its U-verse service to 33 million homes.<sup>106</sup> Dr. Israel notes that, “outside the U-verse footprint, AT&T will also upgrade ATM-DSLAMS to IP-DSLAMS for another 24 million households, allowing it to achieve speeds as high as 45 Mbps.”<sup>107</sup> And AT&T plans to offer speeds as high as 100 Mbps in the future.<sup>108</sup> As AT&T’s CEO Randall Stephenson has aptly described it, cable and telcos will be in an incessant “dogfight” for the next 20 years when it comes to broadband competition:

Somebody invests in technology and it gives them an advantage and they ride it for a while. Somebody comes along and they invest. . . . [Y]ou’re just going to continue to see bandwidth improvements over time. And it’s going to be a dogfight between us and cable for the next 20 years. I don’t see that changing. They will invest and they’ll step up. We’ll invest. It’ll go back and forth. But I feel really good that we’re doing very well against cable today.<sup>109</sup>

Indeed, in response to the proposed transaction, Stephenson stressed:

[W]e came into 2014 really focused on completing our VIP build that’s our network infrastructure commitment that we began a little over a year ago, and [the transaction] puts a heightened sense of urgency on the VIP build. And we’re really going to be very, very aggressive pushing hard on completing all these various areas of VIP.<sup>110</sup>

For its part, Verizon appears just as eager to compete with its DSL and FiOS FTTP service, which presents substantial and well-known competition to both Comcast and TWC in significant parts of their service areas. As its spokesman said in response to the announcement of the Comcast/TWC transaction: “Verizon has a history of introducing the next big thing for

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<sup>106</sup> See Press Release, AT&T, AT&T to Invest \$14 Billion to Significantly Expand Wireless and Wireline Broadband Networks, Support Future IP Data Growth and New Services (Nov. 7, 2012), <http://www.att.com/gen/press-room?pid=23506&cdvn=news&newsarticleid=35661&mapcode=>.

<sup>107</sup> Israel Decl. ¶ 59.

<sup>108</sup> See id. ¶ 57.

<sup>109</sup> Randall Stephenson, Chairman & CEO, AT&T, Inc., Goldman Sachs 22nd Annual Communacopia Conference, Tr. at 14 (Sept. 24, 2013).

<sup>110</sup> Randall Stephenson, Chairman & CEO, AT&T, Inc., Morgan Stanley Technology, Media & Telecom Conference, Tr. at 3 (Mar. 6, 2014).

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our video and Internet customers. This [transaction] just changes the name of the competitor in some of our markets.”<sup>111</sup> Verizon’s CFO more recently affirmed:

I compete against Time Warner Cable today. I compete against Comcast today. I’ll just compete against Comcast tomorrow and the way I view it is FiOS is a superior product to any of them because it is the only one that is fiber to the prem[ises] . . . .<sup>112</sup>

While telco DSL and fiber services make up the greatest share of fixed broadband competition that Comcast and TWC face, they are by no means the only source of such competition. The combined company also will continue to face significant competitive pressures from cable overbuilders such as WOW! and RCN; new and ambitious entrants such as Google Fiber; municipal providers; fixed wireless broadband services like Verizon’s HomeFusion; and satellite broadband offered by Hughes and WildBlue113 – with Dish aggressively developing plans for spectrum-based broadband offerings.<sup>114</sup>

Google, for example, is now deploying a competitive fiber network in several areas of the country. Notably, on February 19, 2014, Google announced plans to quadruple the number of cities in which it provides service, potentially launching in nine new metro areas. Comcast or TWC has a significant presence in eight of those nine areas (which are already served by

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<sup>111</sup> Gautham Nagesh, Comcast Sees Time Warner Cable Deal Boosting Broadband Competition, Wall St. J., Feb. 21, 2014, available at [http://online.wsj.com/news/articles/SB10001424052702304\\_275304579397541413329198](http://online.wsj.com/news/articles/SB10001424052702304_275304579397541413329198) (quoting Verizon spokesman Ed McFadden).

<sup>112</sup> Fran Shammo, EVP & CFO, Verizon, Deutsche Bank Media, Internet and Telecom Conference, Tr. at 13 (Mar. 10, 2014).

<sup>113</sup> The Commission recently recognized that “[s]atellite broadband has made significant improvements in service quality.” FCC, Office of Engineering and Technology and Consumer and Governmental Affairs Bureau, 2013 Measuring Broadband America Report – February 2013, at 7, available at <http://www.fcc.gov/measuring-broadband-america/2013/February#Background>.

<sup>114</sup> See, e.g., Press Release, Sprint Corp., Sprint and Dish to Trial Fixed Broadband Service (Dec. 17, 2013), <http://newsroom.sprint.com/news-releases/sprint-and-dish-to-trial-fixed-wireless-broadband-service.htm>.

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multiple other MVPDs and broadband providers).<sup>115</sup> This means that millions of the combined company’s customers may soon have an additional choice of high-speed broadband service providers. And Google possesses the financial and technical wherewithal to expand Google Fiber to many additional markets.

Competitive forces are also present – increasingly and robustly so – via mobile wireless services offered by well-capitalized and aggressive national wireless providers. For a large number of Americans, wireless is already a meaningful broadband alternative.<sup>116</sup> And it will become an increasingly effective competitor in the near future, as even bandwidth-intensive edge providers have recognized.<sup>117</sup> This reality was reinforced when President Obama enlisted two wireless providers to help him achieve his goal of bringing ultra-high-speed Internet connectivity to schools and making it available to students at school, in the community, and at home.<sup>118</sup> As

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<sup>115</sup> See John Brodtkin, Google Fiber Chooses Nine Metro Areas for Possible Expansion, Ars Technica, Feb. 19, 2014, <http://arstechnica.com/business/2014/02/google-fiber-chooses-nine-metro-areas-for-possible-expansion/>.

<sup>116</sup> See Israel Decl. ¶¶ 61-62; Kathryn Zickuhr & Aaron Smith, Pew Research Center, Home Broadband 2013 (Aug. 26, 2013), <http://www.pewinternet.org/2013/08/26/home-broadband-2013/> (“Pew Home Broadband 2013”).

<sup>117</sup> As the head of MLB Advanced Media recently articulated in an interview, in response to the claim that “[t]he cable guys pretty much control broadband”:

How? We have telcos now. You’ve got wireless. The only pay TV business that’s growing now is U-[v]erse and FiOS. They’re owned by AT&T and Verizon. I don’t think you should discount what AT&T and Verizon can do without a landline – what they can do through the air. Who knows what this is going to look like?

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A lot of our people watch our live games in 4G. . . . If you watch [a] live baseball game in 4G it looks pretty good and 5G is just round the corner.

David Lieberman, Q&A: MLB Advanced Media CEO Bob Bowman on WWE Network, Sony’s Virtual Pay TV Plans, and What’s Next for Streaming Video, Deadline (Jan. 21, 2014), <http://www.deadline.com/2014/01/qa-mlb-advanced-media-ceo-bob-bowman-on-wwe-network-sonys-virtual-pay-tv-plans/> (quoting Bob Bowman).

<sup>118</sup> Karl Bode, AT&T, Sprint Promise Free Wireless Service for Schools, DSL Reports (Feb. 4, 2014), <http://www.dslreports.com/shownews/ATT-Sprint-Promise-Free-Wireless-Service-for-Schools-127609>. President Obama previously noted “innovative new mobile technologies hold the promise for a virtuous cycle – millions of consumers gain faster access to more services at less cost, spurring innovation, and then a new round of consumers benefit from new services. The wireless revolution has already begun with millions of American taking advantage of wireless access to the Internet. . . . In order to achieve mobile wireless broadband’s full potential, we need an





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wireless data speeds and capacity continue to increase substantially with the deployment of advanced services – including LTE, LTE-Advanced, and beyond – wireless broadband service will increasingly become even more competitive with wireline broadband.<sup>119</sup> These developments will further enhance competition and benefit Comcast and TWC customers, virtually all of whom currently have access to 4G LTE service as illustrated in the map below. More specifically, the orange in the map represents those parts of the combined service areas of Comcast and TWC where a 4G LTE provider offers Internet access service. The red shows the very few areas not currently served by a 4G LTE provider.

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environment where innovation thrives . . . .” Office of the Press Secretary, Presidential Memorandum, Unleashing the Wireless Broadband Revolution (June 28, 2010), <http://www.whitehouse.gov/the-press-office/presidential-memorandum-unleashing-wireless-broadband-revolution>.

<sup>119</sup> Wireless providers see wireline providers as competition: Randall Stephenson, Chairman and CEO of AT&T, also observed that this transaction would spur AT&T’s advanced wireless build-out as well as its wired build-out. Randall Stephenson, Chairman & CEO, AT&T, Inc., Morgan Stanley Technology, Media & Telecom Conference, Tr. at 3 (Mar. 6, 2014).

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Moreover, when one considers the near-ubiquitous availability of top-10 ILECs plus 4G LTE providers, there are virtually no areas of the combined Comcast and TWC services areas where customers do not have one of these options, as shown in the map below.

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The Commission has repeatedly recognized the possibility of significant wireless broadband substitution – including in the Adelphia Order in 2006, the National Broadband Plan in 2010, and the most recent 706 Notice of Inquiry – as has the Department of Justice.<sup>120</sup>

Similarly, as Dr. Israel notes, the cable industry is well aware of the possibility of material

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<sup>120</sup> Adelphia Order ¶ 218 (noting the possibility that cable broadband would lose market share from emerging wireless broadband competitors); FCC, Connecting America: The National Broadband Plan, at 40-43 (2010), available at <http://www.broadband.gov/download-plan/> (discussing possibility of wireless substitution); Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, Ninth Broadband Progress Report Notice of Inquiry, 27 FCC Rcd. 10523 ¶ 42 (2012) (“[H]igh speed, high quality, and mobility are all important characteristics of broadband service today. To what extent do Americans currently subscribe to mobile broadband as their only form of Internet access, and what demographic or geographic differences correlate with this choice?”); Ex Parte Submission of the U.S. Dep’t of Justice, GN Docket No. 09-51, at 10 (Jan. 4, 2010) (“It is premature to predict whether the wireless broadband firms will be able to discipline the behavior of the established wireline providers, but early developments are mildly encouraging. Notably, the fact that some customers are willing to abandon the established wireline providers for a wireless carrier suggests that the two offerings may become part of a broader marketplace.”).

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mobile broadband substitution for cable broadband within the next few years.<sup>121</sup> With the increasing ubiquity of 4G wireless connectivity and the multitude of enabled devices including smartphones and tablets, these predictions are increasingly becoming a reality.

Looking out to 2018, SNL Kagan predicts that there will be 224 million unique 4G subscriptions active in the United States, up from 22.6 million at year end 2013.<sup>122</sup>

Source: SNL Kagan

That is – literally – an order of magnitude of growth over a five-year period, easily lapping the growth of cable broadband service during the past five years (and predicted growth over the next five). And 4G wireless broadband technology can deliver speeds that rival those of wireline cable and telco companies – well over 50 Mbps downstream (and averaging in the double

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121 See Israel Decl. ¶¶ 64-65 ([ ]).

122 SNL Kagan, Covered Pops & Subscribers by Technology in U.S. Wireless (July 2013). Similarly, Cisco predicts the number of 4G connections in North America in 2018 to be 372 million. Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2013–2018, at 36 (2014).

123 See SNL Kagan, U.S. Multichannel Industry Benchmarks (detailing the number of cable high speed data subscribers since 2009 and estimating the number of subscribers through 2018).

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digits).<sup>124</sup> Recognizing this enormous marketplace opportunity, Masayoshi Son, Chairman and CEO of SoftBank, recently observed that “[u]p to now wireless was much slower speed, more expensive, so it was not [an] alternative . . . . But I’d like to give [it] a shot. . . . The cable that you are getting on the average in the States is 50 megabits per second . . . . I’d like to provide up to 200 megabits per second[.]”<sup>125</sup> As Dr. Israel explains, while pricing for wireless broadband plans with substantial data usage is higher than for other broadband services today, these prices have and will continue to come down over time as wireless providers achieve more capacity.<sup>126</sup> And, for many lighter broadband users, this is not an issue even today.

ii. Edge Providers Will Benefit from the Transaction. As the Commission has recognized, speed and reliability in the last-mile and in the

backbone spur innovation at the edges and all along the network, which in turn feeds consumer demand for broadband and edge services. Broadband investment in last mile and backbone transit facilities, for example, has provided the speeds and reduced transport costs to make possible what Chairman Wheeler described as “tremendous growth in the online video market,” nearly tripling revenues for online video between 2010 and 2012.<sup>127</sup> Indeed, in emphasizing the “impact of Internet video,” Commissioner Pai has noted that the “largest Internet video provider,

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<sup>124</sup> Sascha Segan, Fastest Mobile Networks 2013, PCMag, June 17, 2013, <http://www.pcmag.com/article2/0,2817,2420334,00.asp>; Israel Decl. ¶ 61.

<sup>125</sup> Masayoshi Son, CEO, SoftBank Corp., The Promise of Mobile Internet in Driving American Innovation, the Economy and Education, Tr. at 12 (Mar. 11, 2014), [http://cdn.softbank.jp/en/corp/set/data/irinfo/presentations/vod/2013/pdf/press\\_20140311\\_02.pdf](http://cdn.softbank.jp/en/corp/set/data/irinfo/presentations/vod/2013/pdf/press_20140311_02.pdf).

<sup>126</sup> See Israel Decl. ¶ 67 (“As more spectrum is released (e.g., through the upcoming 600 MHz incentive auction) and average spectral efficiency continues to improve through broader LTE deployment and advances in LTE technology, the associated increase in the capacity of wireless networks will put downward pressure on the cost and price per gigabyte on wireless networks. . . . Due to these declines in cost and thus price per gigabyte, wireless broadband will likely become an increasingly economical alternative in coming years, including higher usage levels as wireless networks progress.”) (citations omitted).

<sup>127</sup> FCC, Fact Sheet: Internet Growth and Investment (Feb. 19, 2014), [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2014/db0219/DOC-325653A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0219/DOC-325653A1.pdf).

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Netflix, has more American subscribers than any single cable or satellite operator.”<sup>128</sup> In the Open Internet Order, the Commission aptly described this dynamic as “a virtuous circle of innovation in which new uses of the network – including new content, applications, services, and devices – lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses.”<sup>129</sup> The Commission went on to explain that

[n]ovel, improved, or lower-cost offerings introduced by content, application, service, and device providers spur end-user demand and encourage broadband providers to expand their networks and invest in new broadband technologies. Streaming video and e-commerce applications, for instance, have led to major network improvements such as fiber to the premises, VDSL, and DOCSIS 3.0. These network improvements generate new opportunities for edge providers, spurring them to innovate further.<sup>130</sup>

By virtue of the better broadband speeds and services and increased competition this transaction will produce across the combined company’s footprint, the Internet ecosystem as a whole will benefit. Edge providers in particular will have better tools with which to build novel services. The last-mile improvements that the combined company will bring to customers more quickly than either company could do on its own will provide an even stronger foundation for new, powerful apps and services that are dependent upon higher-quality, reliable broadband networks and Wi-Fi gateways to reach and serve customers, such as distance learning, home security, remote healthcare, and others. As Dr. Israel explains, the improvements in broadband services that will arise from this transaction will trigger this virtuous cycle of innovation.<sup>131</sup> As

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<sup>128</sup> Keynote Address of FCC Commissioner Ajit Pai, FICCI Frames 2014 (Mar. 12, 2014), available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2014/db0312/DOC-326016A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0312/DOC-326016A1.pdf).

<sup>129</sup> Preserving the Open Internet; Broadband Industry Practices, Report and Order, 25 FCC Rcd. 17905 ¶ 14 (2010) (“Open Internet Order”).

<sup>130</sup> Id.

<sup>131</sup> See Israel Decl. ¶¶ 163-66.

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the combined company's broadband service improves more rapidly than it otherwise would (especially in the acquired systems), it will enable increased quality of edge services, which will increase the value of broadband for end-users. Because edge providers are available to all ISPs, edge provider improvements that are spurred by the combined company's broadband investments will in turn create additional incentives for other ISPs to improve their own broadband services.<sup>132</sup>

Investors in tomorrow's edge providers are well aware of the virtuous cycle of innovation brought about by successive leaps forward in broadband speed and quality. Indeed, venture capitalists and others consistently argued for the last decade that certain services and apps required better wired or wireless broadband before they could be rolled out and achieve viability.<sup>133</sup> As economist Ev Ehrlich recently observed, edge providers capture the benefits of broadband innovation most directly, because "companies that use the broadband Internet make six to eight times the margins of the companies who provide it."<sup>134</sup>

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132 See id.

133 See Peter Grant & Bruce Orwall, *After Internet's Big Bust, Broadband Shift Went On*, Wall St. J., Jan. 8, 2003, available at <http://online.wsj.com/news/articles/SB1041979000108173904> (John Doerr of Kleiner Perkins: "There's no question that broadband enables paid-for-content business models."); id. (Disney Internet Group President Steve Wadsworth on why ABC and ESPN websites were launching new video technology in 2003 as compared to the Dot Com bust: "We're getting to critical mass in broadband."); id. (Peter Murphy, Disney's strategic planning chief: "We are 20% into the development of broadband . . ."); Josephine Moulds, *Boom, boom. Dotcoms Are Back in the Frame*, Telegraph, Apr. 20, 2007, available at <http://www.telegraph.co.uk/finance/markets/2807599/Boom-boom.-Dotcoms-are-back-in-the-frame.html> (Judy Gibbons of Accel: "A whole industry infrastructure has been established, there are millions of users, people are consuming online versus offline. It's become very mainstream and therefore there are still lots of opportunities to both transform existing business and create new applications that are only possible with broadband internet, like social networking."); see also Hearing on The American Clean Energy Security Act of 2009: Before the Subcomm. on Energy & Env't of the H. Comm. on Energy & Commerce, 111th Cong. 1245 (Apr. 24, 2009) (remarks of Rep. Edward Markey) ("[I]n 1996, we went from a point where not one home in America had broadband in 1996, not one home, to a point where, 10 years later, there is a whole new vocabulary, YouTube, Google, eBay, Amazon, Hulu, thousands of companies, millions of new jobs. They didn't exist because the market wasn't there before 1996 for broadband. It was all narrowband.").

134 Ev Ehrlich, *Who Holds the Cards Online*, San Jose Mercury News, Mar. 8, 2014, available at [http://www.mercurynews.com/opinion/ci\\_25291788/ev-ehrich-who-holds-cards-online](http://www.mercurynews.com/opinion/ci_25291788/ev-ehrich-who-holds-cards-online) (calculating that "[t]he (average weighted) rate of profit on sales for 'providers' is 3.7 percent, versus 24.4 percent for 'residers'").

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Finally, as further discussed in Section V.D.1 below, Comcast is now the only company legally bound by the no-blocking and non-discrimination rules in the FCC’s Open Internet Order, in the wake of the recent D.C. Circuit decision vacating these rules. It is subject as well to unique restrictions on offering, and how it offers, “specialized services.” This transaction, therefore, will spread the reach of those protections to all of TWC’s customers. The Open Internet rules were designed to establish baseline requirements to foster the virtuous cycle of innovation involving edge providers and to provide consumers and edge providers some important certainty.<sup>135</sup>

Accordingly, not only will this aspect of the transaction address and prevent any of the putative competitive harms certain parties may allege regarding edge providers, but application of these Open Internet rules to all of TWC’s cable systems is an immediate and substantial public interest benefit that approval of this transaction will extend to millions of additional consumers.

c. The Transaction Will Accelerate and Expand Broadband Adoption Efforts to Reduce the Digital Divide.

One of the most pressing challenges facing this country is the significant broadband adoption gap – known as the “digital divide.” The combination of Comcast and TWC will demonstrably advance the goal of bringing all Americans into the digital communications age by extending Comcast’s landmark Internet Essentials broadband adoption program to TWC’s territories, and building upon TWC’s efforts. By extending and expanding the Comcast program

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<sup>135</sup> As Chairman Wheeler recently put it, the D.C. Circuit affirmed that “the Commission was justified in concluding that an open Internet would further the interest of broadband deployment by enabling the virtuous cycle of innovation that unites the long-term interests of end-users, broadband networks[,] and edge-providers.” Prepared Tom Wheeler, Chairman, FCC, Remarks at Silicon Flatirons (Feb. 10, 2014), available at <http://www.fcc.gov/document/fcc-chairman-tom-wheeler-remarks-silicon-flatirons> (discussing Verizon v. FCC). Likewise, Commissioner Clyburn has stated that “clear rules of [the] road are absolutely necessary for consumers

. . . broadband providers, and other users of the Internet to be able to further innovate and invest.” Press Release, FCC, Statement By FCC Commissioner Mignon L. Clyburn on Chairman Genachowski’s Circulation of a Draft Order Preserving the Open Internet (Dec. 1, 2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-303145A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-303145A1.pdf).



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to reach new geographic areas – including large metropolitan and rural areas – the transaction will help to connect many thousands of additional low-income households to today’s high-speed Internet.

The Pew Research Center’s latest survey report, *The Web at 25 in the U.S.*, notes the “explosive adoption” of Internet connectivity since 1995 and “its wide-ranging impacts on everything from[ ] the way people get, share, and create news; the way they take care of their health; the way they perform their jobs; the way they learn; the nature of their political activity; their interactions with government; the style and scope of their communications with friends and family; and the way they organize in communities.”<sup>136</sup>

According to the most recent statistics, a large majority of Americans have already embraced broadband – in their homes, at their work places, and on the go with mobile devices. Eighty-seven percent of American adults now use the Internet.<sup>137</sup> About 70 percent of American homes are connected to wired broadband,<sup>138</sup> and the residential penetration figure rises to 80 percent when wireless-only broadband homes are added.<sup>139</sup>

But as policymakers well understand, these statistics mean that tens of millions of Americans still remain out of the broadband loop. Beyond the sheer number of disconnected Americans in the aggregate, there are disheartening demographic distinctions. Pew reports that

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<sup>136</sup> Susannah Fox & Lee Rainie, Pew Research Center, *The Web at 25 in the U.S.* 4 (Feb. 27, 2014), available at [http://www.pewinternet.org/files/2014/02/PIP\\_25th-anniversary-of-the-Web\\_022714\\_pdf.pdf](http://www.pewinternet.org/files/2014/02/PIP_25th-anniversary-of-the-Web_022714_pdf.pdf).

<sup>137</sup> *Id.* at 5 (noting near-saturation usage among those living in households earning \$75,000 or more (99%), young adults ages 18-29 (97%), and those with college degrees (97%)).

<sup>138</sup> See *Pew Home Broadband 2013*, at 2 (Aug. 26, 2013); NTIA & Econ. & Statistics Admin, *Exploring the Digital Nation: America’s Emerging Online Experience* at 2 (June 7, 2013), available at [http://www.ntia.doc.gov/files/ntia/publications/exploring\\_the\\_digital\\_nation\\_-\\_americas\\_emerging\\_online\\_experience.pdf](http://www.ntia.doc.gov/files/ntia/publications/exploring_the_digital_nation_-_americas_emerging_online_experience.pdf) (“Approximately 69 percent of households used broadband Internet at home (72 percent if including dial-up) in July 2011.”).

<sup>139</sup> *Pew Home Broadband 2013* at 4.

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there are “notable differences in adoption” among those lacking higher-level educational degrees, those in lower income households, and those aged 65 and older.<sup>140</sup> Minority adoption rates also lag behind.<sup>141</sup> Chairman Wheeler explained correctly that “having a significant percentage of Americans bypassed by the Internet revolution is unacceptable. We can’t maximize economic growth and job creation when 20 percent of our population is cut off from the digital economy at home.”<sup>142</sup> Commissioner Michael O’Rielly has similarly emphasized the importance of “ensur[ing] that all Americans have access to modern communications networks.”<sup>143</sup> Noting that “certain populations find themselves disproportionately on the wrong side of the digital divide,” Commissioner Mignon Clyburn likewise recognized that “broadband adoption is critical for full participation in today’s economy.”<sup>144</sup>

The primary barriers to broadband adoption have been fairly well identified as the following: (1) perceived lack of relevance of the Internet to the lives of individual consumers, (2) the lack of “digital literacy” in consumers’ understanding of how to use the technology, and (3) the price of getting online (primarily the cost of a computer, but also the cost of service as

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140 The Web at 25, at 17. For example, one of the most important determinants of low adoption is education – only 37 percent of Americans without a high school diploma have adopted broadband, while college graduates have an 89 percent adoption rate. Pew Home Broadband 2013 at 3.

141 According to Pew, 74 percent of white Americans have broadband at home, but only 64 percent of African Americans and 53 percent of Hispanic Americans have the same high-speed connections. Pew Home Broadband 2013, at 5.

142 Tom Wheeler, Chairman, FCC, Remarks at The Ohio State University, Columbus, Ohio 5 (Dec. 2, 2013), available at <http://www.fcc.gov/document/remarks-fcc-chairman-tom-wheeler-ohio-state-university>.

143 Technology Transitions, Order, GN Docket No. 13-5 (Jan. 30, 2014) (statement of Comm’r Michael O’Rielly), available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2014/db0130/DOC-325345A6.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0130/DOC-325345A6.pdf) (emphasis added).

144 Mignon Clyburn, Acting Chairwoman, FCC, Prepared Remarks at National Urban League Washington/Urban Solutions Forum: Advancing a Broadband Agenda for Urban America (Oct. 30, 2013), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-323813A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-323813A1.pdf).

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well).<sup>145</sup> As explained below, Comcast has engaged in an unprecedented effort to address and overcome each of these barriers in an attempt to eliminate the digital divide.

Comcast Internet Essentials. Comcast shares the Commission's concern about broadband adoption, and has dedicated significant resources to closing the gap. The company's Internet Essentials initiative is the nation's largest and most comprehensive broadband adoption program and is specifically designed to systematically address the primary barriers to broadband adoption noted above. Working in concert with community partners and local elected officials, Comcast developed the Internet Essentials program to help low-income Americans begin to overcome these obstacles. The program is in keeping with Comcast's corporate ethos, which emphasizes community service generally – and an achievement record that ranks the company among the nation's best in commitment to community service.<sup>146</sup>

Internet Essentials provides low-income households with low-cost broadband service for \$9.95 a month and the option to purchase an Internet-ready computer for under \$150. In addition, Internet Essentials offers multiple options for accessing free digital literacy training in print, online, and in-person – whether the individual is officially enrolled in the program or not.<sup>147</sup> In the first two and a half years of its existence, Internet Essentials has connected more

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<sup>145</sup> Kathryn Zickuhr, Pew Research Center, *Who's Not Online and Why 2* (Sept. 25, 2013), [http://www.pewinternet.org/~media/Files/Reports/2013/PIP\\_Offline%20adults\\_092513\\_PDF.pdf](http://www.pewinternet.org/~media/Files/Reports/2013/PIP_Offline%20adults_092513_PDF.pdf).

<sup>146</sup> See Charisse Lillie, *Comcast Ranks Among Top 50 Companies for Commitment to Community*, *Comcast Voices* (Dec. 5, 2013), <http://corporate.comcast.com/comcast-voices/comcast-ranks-among-top-50-companies-for-commitment-to-community>; see also 2013 Results, *The Civic 50*, [http://www.civic50.org/2013\\_results.php](http://www.civic50.org/2013_results.php) (last visited Mar. 30, 2014); Comcast-NBCUniversal Order, 25 FCC Rcd. at 4514-15 (Statement of Comm'r Mignon Clyburn) (explaining that “[t]he adoption initiative . . . is well-crafted, ambitious, and has enormous potential. By offering the possibility of affordable, high-speed broadband to families . . . not only will school-age children be able to explore the infinite worlds of the web, but the others in their homes will be able to join them.”).

<sup>147</sup> See *Getting Started with the Internet*, *Internet Essentials*, <http://learning.internetessentials.com/tour/getting-started-internet> (last visited Apr. 5, 2014).

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than 1.2 million low-income Americans, or 300,000 families, to the power of the Internet at home.

Helping people successfully cross the digital divide requires ongoing outreach. To increase awareness of the Internet Essentials program, Comcast has made significant and sustained efforts within local communities. To date, those outreach efforts have included:

- Distributing over 33 million brochures to school districts and community partners for free (available in 14 different languages);
- Broadcasting more than 3.6 million public service announcements with a combined value of nearly \$48 million;
- Forging more than 8,000 partnerships with community-based organizations, government agencies, and elected officials at all levels of government;

Other significant milestones for Comcast's Internet Essentials program include:

- Offering Internet Essentials in more than 30,000 schools and 4,000 school districts in 39 states and the District of Columbia to spread the word and help bring more families online;
- Investing more than \$165 million in cash and in-kind support to help fund digital literacy initiatives nationally, reaching more than 1.6 million people through Comcast's non-profit partners;
  - Fielding 1.9 million phone calls to the Internet Essentials call center;
- Welcoming 1.8 million visitors to the Internet Essentials websites, which supply information in both English and Spanish, and the Online Learning Center; and
  - Providing more than 23,000 subsidized computers at less than \$150 each.

Moreover, the program has not remained static. As Comcast has gained insights from hands-on experience, it has consistently implemented significant enhancements to Internet Essentials along the way. As a result, the program has grown well beyond the company's original commitment in the NBCUniversal transaction. These enhancements include:

- Eligibility criteria expanded – Comcast has expanded Internet Essentials' eligibility criteria twice, first by extending it to families with children eligible to receive reduced-

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price school lunches, and then by offering it to parochial, private, cyberschool, and homeschooled students. As a result, nearly 2.6 million families nationwide are now eligible for Internet Essentials, an increase of nearly 25 percent.

**Broadband speeds increased** – Comcast increased the program’s broadband speeds twice in less than two years (from 1.5 to 3 to 5 Mbps downstream), and Internet Essentials families now receive downstream speeds of 5 Mbps and upstream speeds of 1 Mbps.

**Instant approval process expanded** – Comcast expanded an instant approval process for families whose students attend schools with 70 percent or more National School Lunch Program participation (previously, the threshold was 80 percent), which further increased participation rates.

- **Online support enhanced** – Comcast created an online application tool on the program’s English- and Spanish-language websites to make it easier and faster for a family to apply.

**Partner support facilitated** – Comcast’s community partners now may help connect low-income families to the Internet by purchasing “Opportunity Cards” that help defray the cost of the service. And Comcast launched a program that gives third parties such as schools and community-based organizations the ability to purchase Internet Essentials service and equipment in bulk for families in their community.

**Registration process expanded** – Comcast conducts on-site registration during Internet Essentials events all over the country.

**Residential moves supported** – Comcast updated the “transfer of service” process for Internet Essentials customers, which now allows customers to move their accounts to a new home address in a Comcast service area without having to re-apply for the program. Thanks to all of these efforts, Internet Essentials is doing exactly what it was designed to

do, as confirmed by two surveys compiled from families who participate in the program.<sup>148</sup> Approximately 98 percent of participants in one survey reported that their school-age children used the Internet Essentials service for school assignments.<sup>149</sup> Of that group, 94 percent felt

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<sup>148</sup> See Letter from Lynn R. Charytan, Senior Vice President, Legal Regulatory Affairs and Senior Deputy General Counsel, Comcast Corp., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 10-56, at 10-11 (July 31, 2013) (“IE Report”) (detailing results of survey of Internet Essentials customers); see also Dr. John B. Horrigan, *The Essentials of Connectivity* (Mar. 2014) (“Horrigan Report”), available at <http://corporate.comcast.com/news-information/news-feed/internet-essentials-2014>.

<sup>149</sup> IE Report at 11; see also Horrigan Report at 2.

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Internet Essentials had a positive impact on their child’s grades.<sup>150</sup> About 85 percent of respondents said they use Internet Essentials to go online on a daily basis.<sup>151</sup> Overall, 90 percent of Internet Essentials customers in the survey were “highly satisfied” with the service, and 98 percent said that they would recommend Internet Essentials to others. A subsequent survey of

Internet Essentials participants found that 90 percent said access to the Internet helps them with schoolwork; 59 percent said that the Internet helps them get access to government services; and 57 percent indicated that the Internet helped them with job searches.<sup>152</sup>

An Expanded Commitment. The combined company will be well-positioned to work proactively with the Commission and community leaders to address broadband adoption challenges and opportunities. Comcast’s voluntary broadband adoption commitment under the

Comcast-NBCUniversal Order expires this summer, when the program completes three full years. But Comcast’s commitment to this cause is stronger than ever. That is why Comcast recently announced that it will extend the Internet Essentials program indefinitely and enhance it

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<sup>150</sup> IE Report at 11.

<sup>151</sup> Id.

<sup>152</sup> Horrigan Report at 3. TWC also has undertaken broadband adoption efforts in recent years. TWC has offered an entry-level “Everyday Low Price” broadband access service for \$14.95 per month, as well as its Starter Internet program targeted to schools in several areas in its footprint, which provided eligible families a basic tier of broadband service for two years for \$10/month. See Mike Robuck, Time Warner Boots Up Wi-Fi Hotspots, Starter Internet Tier in K.C., CED, Nov. 30,

2012, <http://www.cedmagazine.com/news/2012/11/time-warner-boots-up-wi-fi-hotspots-starter-internet-tier-in-kc>. Ultimately, 486 schools participated in the pilot program, which ended in January 2013. TWC also has been actively engaged in a variety of other broadband adoption and digital literacy efforts through partnerships with non-profit and community organizations. For example, in partnership with the nation’s largest civil rights organizations, TWC carried \$1 million worth of PSAs in key markets throughout 2012-2013 to promote the importance of broadband. The PSAs were carried in English, Spanish, and five other languages and were prepared by the Broadband Opportunity Coalition (“BBOC”). BBOC’s members include: National Urban League, NAACP, National Council of La Raza, Asian American Justice Center, and League of United Latin American Citizens (“LULAC”). TWC has also partnered with the McCain Internet Empowerment Project, a non-profit initiative that brings broadband service and computer accessibility to senior citizens. TWC has provided computers and broadband connectivity at the Wilson Senior Center and eight other assisted-living facilities to expand digital literacy among senior citizens. And TWC has partnered with LULAC to support technology centers at LULAC locations that provide training, technology, and support services in the Latino communities served by the company.

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in various ways, for example, by optimizing the online application tool.<sup>153</sup> Thanks to this upgrade, families will be able to complete the online Internet Essentials application form via a mobile device and upload their eligibility documentation through the website.

In addition, Comcast recently made grants totaling more than \$1 million to 15 communities to create “Internet Essentials Learning Zones.”<sup>154</sup> The grants are part of Comcast’s multifaceted Gold Medal Recognition Program for communities that have done the most to help close the digital divide. Learning Zones will bring together the non-profit community, schools, and Comcast to create a continuum of connectivity during the day, after school, and at home. As part of these efforts, Comcast offered an opportunity for all eligible families in these communities, as well as five additional “most improved” communities to receive free Internet Essentials service for six months if they registered with the program during a three-week period in March.<sup>155</sup> More than 4,300 low-income families registered and are now connected to the Internet at home.

When this transaction is approved, this program will apply to all of the communities in the TWC markets, thereby extending Internet Essentials’ reach into 19 out of 20 of the nation’s largest cities. Thus, a tangible and far-reaching benefit of this transaction, effective upon approval by the Commission, will be to make the power of broadband and the Internet available to many more low-income families and help reduce the unacceptable digital divide in the country.

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<sup>153</sup> Press Release, Comcast Corp., Comcast Extends National Broadband Adoption Program for Low-Income Families (Mar. 4, 2014), <http://corporate.comcast.com/news-information/news-feed/internet-essentials-2014>.

<sup>154</sup> See *id.*

<sup>155</sup> Initially, the application and approval deadline for complimentary Internet service was March 15, 2014. Comcast subsequently extended the deadline.

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2. The Transaction Will Accelerate Deployment of Advanced Video Technologies and the Development of New and Innovative Video Products and Services.

As video competition from satellite, telcos, overbuilders, and others continues to mount, established cable operators across the nation continue to lose subscribers, even as overall video subscriber figures grow. Since 2009 alone, after the court rejected the Commission's 30 percent cable horizontal ownership rules for the second time, the two DBS providers have added another 1.7 million subscribers, the telco MVPDs have added another 6.2 million subscribers, while cable companies have lost 7.3 million subscribers. And if one goes back to 2005, as illustrated in the chart below, the increase in MVPD competition is even more pronounced:

To meet this challenge head-on, Comcast has invested billions to reinvigorate its services



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(e.g., by transitioning to all-digital and deploying the X1 platform) and develop new ones.<sup>156</sup>

Indeed, Comcast’s recent “positive video subscriber result [for the 4th quarter of 2013], coming as it does when their video penetration of homes passed has fallen . . . is testament not to a ‘good quarter’ but instead to a good half-decade of hard work and heavy lifting.”<sup>157</sup> This hard work and commitment is what led to the company’s notable improvements, reflected in the Fortune and J.D Power surveys noted above. Adding scale to Comcast’s leadership and expertise will produce a significant and galvanizing combination.

A larger video customer base will facilitate accelerated investment by reducing the effective costs of innovation on a per-subscriber basis.<sup>158</sup> According to Dr. Israel, “[b]y allowing the combined firm to amortize fixed cost investments over a larger base of customers, the transaction is likely to generate new investment and innovation that would not have been profitable absent the transaction. The economic logic behind this conclusion is simple and well established.”<sup>159</sup> As a result, the combined company will be better able to take risks on developing and deploying advanced video products and services to all of its customers, a fact that the FCC has consistently recognized is a public interest benefit in similar transactions.<sup>160</sup>

As in the broadband space, investing in the video platform and video technologies in turn

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<sup>156</sup> Angelakis Decl. ¶ 26. Comcast appears to recently have stanchd the flow (and even gained customers in the most recent quarter), in large part because of its innovative products. See MoffettNathanson Research, Comcast Q4 2013: Boardwalk Empire (Jan. 28, 2014); see also Trefis Team, The Latest Deal with Sony Pictures Highlights Comcast’s Efforts to Push Its On-Demand and Streaming Services, Forbes, Mar. 12, 2014, available at <http://www.forbes.com/sites/greatspeculations/2014/03/12/the-latest-deal-with-sony-pictures-highlights-comcasts-efforts-to-pu> (“Comcast has been successful in trimming the subscriber losses in the past few quarters and we believe this was partly due to its advanced offerings that include X1/X2 platform and Xfinity Streampix services.”).

<sup>157</sup> MoffettNathanson Research, supra note 156 at 2.

<sup>158</sup> See Rosston/Topper Decl. ¶¶ 85-94.

<sup>159</sup> Israel Decl. ¶ 107.

<sup>160</sup> See, e.g., Adelphia Order ¶ 256 (“As the Commission has stated many times, the deployment of advanced video services is a recognized public interest benefit. . . . Thus, we find it more likely than not that the proposed transactions will have a positive impact on the deployment of certain advanced services to Adelphia subscribers.”).

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helps produce new opportunities for content providers – by offering, for example, more VOD capacity, more HD opportunities, and TV Everywhere. Programmers have also acknowledged the benefits that will flow from this transaction:

¶Viacom: “[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 systems because . . . what is of highest importance to us is to make sure our content is available ubiquitously on different platforms in a measured way.”<sup>161</sup>

¶Discovery: “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.”<sup>162</sup>

¶Fox: “[T]here may be some positive [consequences from cable consolidation] . . . . [N]ew digital platforms in over-the-top players may grow even more quickly with a consolidated distribution industry.”<sup>163</sup>

¶CBS: Comcast put together “a pretty terrific deal” and CBS looks forward to working with the Comcast-owned TWC. “[T]he good news about Comcast is they own a network that competes with us and they own a number of cable channels, so they are a company that believes in content and they believe in paying fairly for content.”<sup>164</sup>

¶Starz: “[W]hatever the final configuration [of the transaction] is, there is a real opportunity for those companies with Starz products.”<sup>165</sup>

Comcast is committed to deepening the value proposition for programmers and residential video customers – not only retaining them, but growing their numbers and giving them new and better ways of experiencing video.

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<sup>161</sup> Philippe Dauman, CEO, Viacom, Inc., Deutsche Bank Media, Internet & Telecom Conference, Tr. at 10 (Mar. 10, 2014).

<sup>162</sup> David Zaslav, President & CEO, Discovery Communications, Inc., Q4 2013 Earnings Call, Tr. at 11 (Feb. 13, 2014).

<sup>163</sup> Charles Carey, President, 21st Century Fox, Inc., Q2 2014 Earnings Call, Tr. at 6 (Feb. 6, 2014).

<sup>164</sup> Hilary Lewis, Les Moonves Thinks Comcast-Owned Time Warner Cable Will ‘Pay Appropriately’ For CBS Content, Hollywood Reporter, Feb. 13, 2014, available at <http://www.hollywoodreporter.com/news/les-moonves-thinks-comcast-owned-680139>.

<sup>165</sup> Christopher P. Albrecht, CEO, Starz, Q4 2013 Earnings Call, Tr. at 10 (Feb. 21, 2014).

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a. The Benefits of All-Digital.

Accelerated Transition to All-Digital. Improving cable services for customers – adding channels, improving picture quality (i.e., HD), adding advanced features, offering faster broadband speeds – depends on securing additional bandwidth.<sup>166</sup> To free up the bandwidth needed for more channels and quality, TWC made an early commitment to adopting switched digital video (“SDV”) technology to manage content and video quality. But in order to offer super high-speed Internet service going forward, TWC is now focused on migrating to all-digital systems. TWC’s all-digital migration currently is complete in about 17 percent of its footprint,<sup>167</sup> and TWC expects to have completed only 75 percent of its footprint by the end of 2016.<sup>168</sup>

Comcast took a different approach to freeing up bandwidth, reclaiming the bandwidth devoted to analog delivery of programming through an arduous, resource-intensive, community-by-community, scheduled five-year effort to convert to all-digital – an effort that the company referred to as “Cavalry” to underscore the intention to charge forward. That approach paid off, and Comcast completed its transition to an all-digital platform in 2012, ahead of schedule. The transaction will allow TWC’s transition to all-digital to be accelerated, and Comcast’s substantial

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<sup>166</sup> See, e.g., Comcast Finishes Digital Conversion and Launches 139 New TV Networks in Santa Cruz and Surrounding Areas, PR Newswire, July 9, 2013, available at <http://www.prnewswire.com/news-releases/comcast-finishes-digital-conversion-and-launches-139-new-tv-networks-in-santa-cruz-and-surrounding-areas-214767921.html> (describing Comcast’s completion of the digital conversion and launch of 69 new HD networks, 17 SD channels and 53 multicultural networks in Santa Cruz County after Comcast successfully converted to all-digital delivery system). Digital also needs to happen for faster broadband speeds, even with the deployment of DOCSIS 3.0.

<sup>167</sup> See Ian Olgeirson, Charter, Time Warner Cable Lag in All-Digital Push To Convert CapEx into Capacity, SNL Kagan (Jan. 17, 2014) (“Time Warner Cable is estimated to have made the [digital] transition in 17% of its homes passed, including markets in its New York cluster. The MSO has indicated plans to expand in 2014, but it has not laid out a roadmap for the markets and is not expected to complete the effort this year.”). TWC has migrated to all-digital only in New York City; Augusta, Maine; parts of Kentucky and Indiana; and portions of Los Angeles.

<sup>168</sup> See Time Warner Cable, TWC Operational and Financial Plan, at 11 (Jan. 30, 2014).

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experience with Cavalry, in which it worked through the various complexities of an all-digital transition in a disciplined and sustained effort, will enable the transition in the TWC cable systems to take place more efficiently and with less customer disruption.<sup>169</sup> As a result of these upgrades, customers on TWC systems will enjoy more innovative video products and faster broadband speeds on an accelerated basis.

Enhanced Network Reliability and Customer Service Innovations. The benefits of a more robust and reliable all-digital network also extend to network reliability and performance. Comcast has invested billions of dollars to transform the end-to-end customer experience through an advanced broadband network and state-of-the-art care and tech diagnostic tools for technicians and customer account executives. Comcast uses these tools to detect and remediate quality issues, often before issues arise to a level noticeable by consumers, and also is adapting these in-network tools to give customers more information about system status. One example of this is the recently released “Xfinity My Account” app, which provides systems status updates as well as troubleshooting tips and advice.<sup>170</sup> In addition, Comcast’s all-digital network improves overall video quality and consumer satisfaction: Comcast is able to ingest digital signals from programmers and move the signals through the network to set-top boxes without conversion to and from analog and the accompanying loss of fidelity.

Beyond this, an all-digital network facilitates customer service innovations, efficiencies, and lower costs by allowing Comcast to remotely activate and deactivate services.<sup>171</sup> This has

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<sup>169</sup> See Angelakis Decl. ¶ 27.

<sup>170</sup> See Roger Yu & Mike Snider, Comcast Seeks Uber-like Customer Service, USA Today, Mar. 19, 2014, available at <http://www.usatoday.com/story/money/business/2014/03/18/comcast-ceo-interview/6577633/>.

<sup>171</sup> The Commission has acknowledged that all-digital service, along with encryption, benefits customers by enabling cable operators to remotely activate and deactivate service. This not only eliminates the need for customers to rearrange their schedules and wait for a technician, but it reduces the number of truck rolls necessary, leading to cost savings that can translate to increased investment in innovative products and services. See Basic

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enabled Comcast's development of next-generation customer self-service products, including self-install kits and online self-service, which save both customers and the company significant time and money and improve customer satisfaction. These options are now ubiquitous across Comcast's footprint and are having real-world impacts: Since 2010, inbound customer service and billing-related call volume has decreased by approximately 20 million. In the last two years, Comcast has reduced its truck rolls by eight million. And, building on this positive momentum, Comcast has made improved customer service a key focus over the past several years, offering shorter appointment windows and reducing repeat service visits by about 20 percent since 2010. Those improvements have been recognized by external objective parties: For example, in 2014, Comcast earned a gold Stevie award in innovation in customer service, and, in 2013, Comcast earned a bronze Stevie award in e-Commerce customer service.<sup>172</sup> Since 2010, Comcast has improved its J.D. Power Overall Satisfaction by nearly 100 points as a video provider and close to 80 points in High Speed Data – more than any other provider in the industry during the same

period.<sup>173</sup>

While TWC has been able to invest in some self-installation options for existing

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Service Tier Encryption, Report and Order, 27 FCC Rcd. 12786 ¶¶ 8, 12-13 (2012); see also Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices, Third Report and Order and Order on Reconsideration, 25 FCC Rcd. 14657 ¶ 45 (2010) (supporting the transition to all-digital cable service and noting that all-digital service allows operators to “make more efficient use of spectrum capacity, allowing the operators to dedicate more of their spectrum to broadband and other services”); Cable Television Technical and Operational Requirements, Notice of Proposed Rulemaking, 27 FCC Rcd. 9678 ¶ 2 (2012) (same).

<sup>172</sup> 2014 Stevie Award Winners, [https://www.stevieawards.com/pubs/sales/awards/426\\_2281\\_24735.cfm](https://www.stevieawards.com/pubs/sales/awards/426_2281_24735.cfm) (last visited Apr. 4, 2014); 2013 Stevie Award Winners, [https://www.stevieawards.com/pubs/sales/awards/426\\_2281\\_22268.cfm](https://www.stevieawards.com/pubs/sales/awards/426_2281_22268.cfm) (last visited Apr. 4, 2014).

<sup>173</sup> Compare Press Release, J.D. Power, 2013 U.S. Residential Television Service Provider Satisfaction Survey (Sept. 26, 2013), <http://www.jdpower.com/content/press-release/jxh1ZHX/2013-u-s-residential-television-service-provider-satisfaction-study.htm>; Release, J.D. Power, 2013 U.S. Residential Internet Service Provider Satisfaction Survey (Sept. 26, 2013), <http://www.jdpower.com/press-releases/2013-us-residential-internet-service-provider-satisfaction-study>, with Press Release, J.D. Power & Assocs., 2010 U.S. Residential Television Service Satisfaction Study (Oct. 6, 2010), <http://businesscenter.jdpower.com/news/pressrelease.aspx?ID=2010166>; and J.D. Power & Assocs., 2010 U.S. Residential Internet Service Provider Satisfaction Survey (Oct. 28, 2010), <http://businesscenter.jdpower.com/news/pressrelease.aspx?ID=2010167>.

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customers, TWC does not yet offer a self-install option for new customers. As Drs. Rosston and Topper observe:

[C]ustomers in [the] current TWC territory will benefit from getting access to Comcast’s innovative self-installation and self-service options. . . . [F]ollowing its conversion to digital, Comcast introduced self-service products, including self-install kits and online self-service. Self-install kits allow customers to hook up video, broadband, or voice service without an on-site cable technician. Self-install kits are cheaper for consumers than a traditional technician installation: \$9.95 shipping and handling compared to a \$50–60 technician installation fee. By investing millions of dollars in developing and designing the self-install kits, Comcast was able to reduce the marginal cost of adding new customers.<sup>174</sup>

Comcast’s recent advances in customer service and satisfaction have served to focus and intensify its desire to be a leader for an industry historically plagued by dissatisfaction. Comcast will apply this mindset to the TWC systems. Nonetheless, Comcast recognizes it must continue to strive to enhance its customer service. Comcast values its customer relationships tremendously and is firmly committed to invest more in this important area to solidify these relationships, especially in the intensely competitive environment in which the company operates. The combined company will be able to invest ever more in centralized service systems and improvements and will bring a dedicated effort to improving performance in the TWC markets.

b. TWC Customers Will Enjoy More Programming Choices.

Comcast has more extensive programming rights and a broader VOD and online catalog than TWC. These rights, along with the upgrades Comcast would bring to TWC’s VOD infrastructure and broadband network, will provide customers in the TWC markets with access to more programming choices in time, particularly in terms of VOD and TV Everywhere options.

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<sup>174</sup> Rosston/Topper Decl. ¶ 110.

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As a result, the combined company will be better positioned to retain and win back consumers in the face of increasingly widespread and rigorous competition for customers' time and attention.

VOD Leader. As Time Warner, Inc. CEO Jeff Bewkes recently observed, “[t]he world’s going to [VOD].”<sup>175</sup> Bewkes praised Comcast’s VOD platform and X1 interface while noting that other operators “frankly . . . haven’t moved fast enough or effectively enough to deliver,” and pointedly observed that, “[i]f we don’t fill that need, then it is going to get filled by somebody else and it would be a missed opportunity.”<sup>176</sup> Comcast has sought to seize the opportunity. Xfinity On Demand today includes approximately 50,000 programming choices (compared to TWC’s 15,000-20,000), with the most current TV shows and movies, and over 80 percent of those choices are free of charge.<sup>177</sup> It offers the most sought-after movies from all the major studios, and one of the broadest selections of independent films.

To deliver all these offerings to its customers, Comcast has built an industry-leading VOD platform that it will bring to TWC systems. This likely will include, among other things, extending its library servers to serve TWC subscribers, building out its robust VOD content delivery network to TWC systems – i.e., by upgrading the IP network that connects the library servers with TWC’s systems, adding caching and streaming servers to the TWC infrastructure, etc. – and integrating TWC’s VOD back office with Comcast’s system. Comcast will extend its broad VOD programming rights to the TWC systems as soon as its contracts permit, and as soon

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<sup>175</sup> Deborah Yao, Time Warner CEO: Increases in Content Rights Fees Will Not Kill Pay TV Ecosystem, SNL Kagan, Dec. 10, 2013, <http://www.snl.com/InteractiveX/article.aspx?BeginDate=12/10/2013&ID=26223656&KPLT=2>.

<sup>176</sup> Joe Flint, Time Warner CEO Jeff Bewkes Says Distributors Need to Boost VOD, L.A. Times, Dec. 10, 2013, available at <http://articles.latimes.com/2013/dec/10/entertainment/la-et-ct-time-warner-bewkes-20131210>.

<sup>177</sup> Xfinity On Demand averages 400 million views each month. Since the service launched in 2003, there have been 32 billion views.

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as the planned upgrades to the TWC systems permit the delivery of this much larger content library to customers.

To expand customers' options for viewing this extensive library of VOD content, Comcast continues to work with third-party device manufacturers, such as Samsung, TiVo, and Microsoft, to enable access to Xfinity On Demand content on a variety of devices. In fact, Comcast and TiVo plan to complete the integration of Xfinity On Demand service on TiVo DVRs for all Comcast markets by June of this year.<sup>178</sup> In TiVo CEO Tom Rogers' view, this transaction may provide TiVo with the further opportunity to expand its connection to Comcast in more key markets, consistent with the Commission's goals of a retail market for navigation devices.<sup>179</sup>

Comcast also recently launched (in November 2013) the Xfinity TV Store, giving customers the ability to purchase movies and TV shows for downloading and streaming – often weeks before they are available to rent or purchase on Blu-Ray and DVD – and store them in the cloud. Customers can access their purchases anytime, anywhere, and on any device, without the hassle of managing files, switching devices, or remembering passwords. Comcast customers have already been actively using this robust new platform. Over 2 million movies, TV shows, and other content have been purchased since launch, and Comcast has been the leading seller of certain movies in certain time frames – ahead of iTunes.<sup>180</sup> TWC does not currently offer such

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<sup>178</sup> Jeff Baumgartner, TiVo Profits on New MSO Subscriber Record, Multichannel News, Feb. 26, 2014, available at <http://www.multichannel.com/distribution/tivo-profits-new-mso-subscriber-record/148553>.

<sup>179</sup> Id.; see also 47 U.S.C. § 549.

<sup>180</sup> See Joe Flint, Comcast's Digital Movie Sales Off to Solid Start, L.A. Times, Dec. 5, 2013, available at <http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-comcast-digital-sell-through-20131205,0,1835629.story#axzz1> (noting that Comcast had been the number one seller of certain movies like "The Hunger Games" in recent weeks).



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an electronic sell-through service, so the transaction will bring this service as a new benefit to all of its customers.<sup>181</sup>

TV Everywhere Leader. Nearly five years ago, Comcast worked with TWC's then-parent, Time Warner Inc., to establish TV Everywhere principles to bring "significantly more television content to customers online in a manner that is consumer-friendly, pro-competitive and non-exclusive."<sup>182</sup> Those principles have been made into reality, in significant part through Comcast's efforts to secure TV Everywhere rights from programmers (and through NBCUniversal's leading the industry in extending such rights to MVPDs).<sup>183</sup> Led by Comcast's initiatives, TV Everywhere is gaining in popularity, doubling its usage in 2013.<sup>184</sup>

The popularity of TV Everywhere during the recent Winter Olympics demonstrates Comcast's deep commitment to this consumer-friendly and convenient platform:<sup>185</sup>

♣ NBC Sports delivered a massive 10.8 million hours of online video as part of its production of the 2014 Winter Olympic Games in Sochi, Russia.

♣ More than 8.5 million hours of video was consumed through TV Everywhere authenticated live streams on NBCOlympics.com and the NBC Sports Live Extra app.

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<sup>181</sup> As Drs. Rosston and Topper explain, both because of the combined company's expanded geographic scope and its ability to overcome technological differences and other challenges, the transaction will facilitate the rollout of such convenient video programming services to TWC's customers. See Rosston-Topper Decl. ¶¶ 102, 115.

<sup>182</sup> Press Release, Comcast Corp., Time Warner Inc. Announces Widespread Distribution of Cable TV Content Online (June 24, 2009), <http://corporate.comcast.com/news-information/news-feed/time-warner-inc-announces-widespread-distribution-of-cable-tv-content>

<sup>183</sup> Press Release, HIS Inc., TV Everywhere Spreads Among US Television and Cable Networks; NBCUniversal Leads (Oct. 18, 2013), <http://press.ihs.com/press-release/design-supply-chain-media/tv-everywhere-spreads-among-us-television-and-cable-networks>.

<sup>184</sup> Daisy Whitney, Study: TV Everywhere Doubles, Tablets Drive Usage, Online Video Insider (Feb. 6, 2014), <http://www.mediapost.com/publications/article/219055/study-tv-everywhere-doubles-tablets-drive-usage.html>.

<sup>185</sup> Press Release, Comcast Corp., Sochi 2014: A TV Everywhere Success Story (Mar. 7, 2014), <http://corporate.comcast.com/news-information/news-feed/sochi-2014-a-tv-everywhere-success-story>.

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In an unprecedented effort, 225 multichannel distributors offered verification for their customers, with more than 4.8M devices successfully verified.

NBCOlympics.com and the NBC Sports Live Extra app saw 24.6 million video viewers (160 percent higher than the 2010 Vancouver Winter Games and 8 percent higher than the 2012 London Summer Games).

And the February 21, 2014 verified live stream of the Olympic men’s ice hockey semifinal between the United States and Canada generated more than 2.1 million unique users – believed to be the largest TV Everywhere verified streaming audience in U.S. history, and ranking No. 1 in unique users for any NBC Sports Digital stream, topping NBC’s non-authenticated Super Bowl XLVI in February 2012.

Today, Comcast offers an industry-leading TV Everywhere experience to its customers. Comcast customers have access to 300,000-plus streaming choices, including over 50 live TV channels, on XfinityTV.com. These live channels and over 25,000 on-demand choices are also available on the Xfinity TV Go app, which also allows customers to download certain shows and movies to watch offline later.<sup>186</sup> TWC’s TV Everywhere offering is more limited; it provides less content and less flexibility for accessing this content outside the home, with up to just 29 live TV channels and 6,500 hours of video content.

The increased scale from the transaction will allow Comcast to improve the economics of investing in significant fixed-cost programming rights (such as SVOD and other digital rights) to provide greater value to customers. Greater scale and denser geographic coverage will also create marketing efficiencies that are particularly important for the roll-out of services like TV Everywhere that may require aggressive – and expensive – marketing campaigns to educate and attract consumers.<sup>187</sup> For example, Comcast debuted a “Watchathon Week” in April 2013, during which Comcast customers were able to catch up on their favorite shows from more than

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<sup>186</sup> See Press Release, Comcast Corp., Xfinity TV Go Network Roster Tops 50 with Latest Update (Mar. 19, 2014), <http://corporate.comcast.com/news-information/news-feed/comcast-customers-can-now-stream-more-than-50-live-channels-an>

<sup>187</sup> Angelakis Decl. ¶ 19.

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30 programming networks at no additional charge. The promotion set new viewing records, including via Comcast's TV Everywhere platforms.<sup>188</sup> Another Watchathon Week recently ended (this time with over 5,000 episodes from 48 networks), and early usage data indicate that it remains an immensely popular offering. With added scale, Comcast could make even more effective marketing efforts to inform subscribers across a larger region (or across the nation) about these valuable services. As Drs. Rosston and Topper explain, the combined company's added scale also will accelerate innovation by allowing Comcast to provide fully-featured apps for more third-party devices more quickly by spreading these fixed costs across a greater number of customers.<sup>189</sup>

While the transaction will clearly bring to the TWC systems more content and more convenient ways of accessing such content, it is conversely not clear that the transaction will significantly discipline the costs of such content. Programmers as a whole have significant bargaining power, as reflected in the fact that programming costs have far outstripped inflation and retail cable rate increases for many years.<sup>190</sup> While Comcast is far from immune to these rising costs, Comcast's response has been to obtain from programmers added value for its customers in the form of the most robust suite of on-demand, TV Everywhere, and other digital

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<sup>188</sup> See Maggie McLean Suniewick, Watchathon Week Breaks Major Xfinity TV Records, Comcast Voices (Apr. 19, 2013), <http://corporate.comcast.com/comcast-voices/watchathon-week-breaks-major-xfinity-tv-viewership-records>.

<sup>189</sup> See Rosston/Topper Decl. ¶ 89.

<sup>190</sup> See, e.g., Ali Choukeir & Chris Young, Virtual Service Provider Space an Unfinished Puzzle, SNL Kagan, Feb. 6, 2014, <http://www.snl.com/interactivex/article.aspx?id=26791052&KPLT=6> (noting that "programming costs continue to outpace the rate of inflation, especially [for] sports and retrans"); Tony Lenoir, Cost of Programming Jumps 54% in 5 years, SNL Kagan, Aug. 28, 2013, <http://www.snl.com/InteractiveX/article.aspx?BeginDate=08/28/2013&ID=24720103&KPLT=2> (reporting that the top three cable operators (Comcast, TWC, and Charter) have seen programming costs per subscriber increase in the last five years by 54 percent – from \$24.50 to \$37.72); Robert Gessner, Programming Costs Drive Cable Bills Higher, TV NewsCheck (Mar. 14, 2014), <http://www.tvnewscheck.com/article/74809/programming-costs-drive-cable-bills-higher>.

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rights from programmers like Disney, Fox, AMC, and Viacom.<sup>191</sup> These benefits will ultimately redound to the benefit of TWC markets as well. And it is possible that the combined company may be able to realize some programming cost savings by combining contracts in certain cases. These cost savings will allow Comcast to provide even more programming options to meet its customers' demands.

c. The Benefits of the X1 Platform.

Comcast's launch of its X1 platform and successor X2 user interface is a key example of the video technology that Comcast has deployed to its customers and would extend to TWC customers in this transaction. Comcast's scale, as well as its commitment to innovation, research and development, and infrastructure investment led to the development and deployment of the X1 platform throughout Comcast's footprint. Comcast made an upfront investment of {{{}} to develop this platform – and could have done even more, more quickly, with greater scale.<sup>192</sup> The combined company will bring that same commitment to the acquired TWC systems, and with greater scale and investment will be able to do even more.<sup>193</sup>

The X1 platform gives customers unmatched interactive TV functionality featuring a state-of-the-art user interface and other product features that revolutionize customers' viewing experiences:

- Integrated search (across TV, Xfinity On Demand, and DVR) with instant play;
- Access to the Internet and apps like Facebook and Pandora, as well as integrated TV apps like weather and traffic;
- Cross-product integration, including access to voicemail from the TV;

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<sup>191</sup> See MoffettNathanson Research, Comcast and Time Warner Cable: Of White Knights and Brotherly Love 5 (Feb. 13, 2014) (noting that Comcast has secured more digital rights than TWC).

<sup>192</sup> Angelakis Decl. ¶ 14; see Rosston/Topper Decl. ¶¶ 87-89.

<sup>193</sup> Angelakis Decl. ¶ 16.

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- Enhanced personalization and recommendations;
- A “Last 9” feature that enables customers to easily access the last nine channels, VOD programs, and apps that were viewed or used;
- The X1 remote app, which offers a new remote control experience by letting customers use their smartphones and tablets to control their TVs with a simple gesture, or use voice commands to easily navigate the programming guide; and
- The X1’s network-based user interface, which enables Comcast to implement upgrades without swapping out customer equipment, thereby leading to faster innovation cycles.

Comcast also has launched its new X1 DVR with cloud technology, enabling customers in certain markets to watch their DVR recordings on any X1-connected TV and on computers and mobile devices in the home, as well as download recorded content to mobile devices to take on-the-go. At the same time, Comcast has deployed its live in-home IP cable streaming feature, which allows customers on the X1 platform to stream practically their entire cable channel lineup, including must-carry stations and PEG channels, to computers, smartphones, and tablets in the home.

The value and innovation of the X1 platform and X2 user interface have been widely recognized:

- “Today, Comcast’s X2 . . . is the video industry’s best product.”<sup>194</sup>
- “I have been testing this sleek black cable box for the past three weeks, but to call it a cable box really doesn’t do it justice. It is a nice blend of Internet content, live television, apps, a multi-tuner DVR and on-demand programming, in one of the cleanest user interfaces that you’ll find from a cable company.”<sup>195</sup>

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194 MoffettNathanson Research, Comcast Q4 2013: Boardwalk Empire 2 (Jan. 28, 2014).

195 Todd Bishop, Xfinity X1: How Comcast Roped Me Back in to Cable, GeekWire, Aug. 22, 2013, <http://www.geekwire.com/2013/xfinity-x1/>.

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- “[X1] feels like a genuinely 21st-century way to use a widescreen television set – like a smart TV inside your cable box.”<sup>196</sup>
  - Netflix CEO Reed Hastings praised the X1, noting that it’s a “great product.”<sup>197</sup>

Without this transaction, TWC customers would likely not experience the benefits of this revolutionary video experience at all, or at least not as rapidly or pervasively. TWC by itself has not had the scale to allow it to invest in and deploy this technology.<sup>198</sup> To be sure, Comcast has explored licensing arrangements to enable unaffiliated companies to use X1 technology, but those efforts are time-consuming and face challenges, such as infrastructure limitations of prospective partners, compensation issues, customization, and so on.<sup>199</sup>

In contrast, the combined company may be able to begin deploying Comcast’s cutting-edge X1 entertainment operating system within the first year in certain TWC systems.<sup>200</sup> And the transaction presents the opportunity for Comcast to spread the costs of developing and deploying the X1 platform among more Comcast-owned systems, which will in turn help facilitate future innovation.<sup>201</sup> TWC also has developed certain video service technologies that may be deployed throughout the combined company as well. Notably, TWC offers StartOver

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<sup>196</sup> Tim Carmody, Comcast’s New X1 UI Integrates Real-time and Streaming TV with News and Social Apps, The Verge, May 21, 2012, <http://www.theverge.com/2012/5/21/3033972/comcast-ui-platforms-video-news-social-apps>.

<sup>197</sup> John McDuling, The American Cable Industry’s Cunning Plan to Save Itself: Make TV Work Like It Should, Quartz, Feb. 4, 2014, <http://qz.com/172533/the-american-cable-industrys-cunning-plan-to-save-itself-make-tv-work-like-it-should/>.

<sup>198</sup> Although TWC is now conducting limited employee trials of a new cloud-based user interface, HNav – and plans to conduct a Beta customer trial later this year – it has no firm plans for a commercial launch yet.

<sup>199</sup> See Rosston/Topper Decl. ¶¶ 112-13. The X1 platform currently comprises over 400 separate but to some extent interdependent subsystems. A licensee of the X1 platform might well need or want to swap in several dozens of its own subsystems to handle certain of the platform’s functions, which would require additional design and development work and raise questions as to allocation of responsibility for performance issues that may result.

<sup>200</sup> Angelakis Decl. ¶ 28.

<sup>201</sup> The transaction also will enable Comcast to lower the per-customer costs of developing and deploying in-depth metadata tagging for its video programming, which allows for more efficient and more customer-friendly searching capabilities, thereby accelerating its deployment. See Rosston/Topper Decl. ¶ 93.

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and LookBack, two tools that offer customers flexibility in viewing that Comcast does not have. Comcast will explore whether those capabilities can enhance the X1 platform or other technology in the combined company's footprint.

d. The Combined Company Will Continue to Advance the Transition to IP Cable.

Both Comcast and Time Warner Cable have made great strides in the transition to IP cable and have invested significant resources in these efforts. In 2013, Comcast spent approximately {{ }} on IP-delivered cable service and plans to invest another {{{}} this year, and that does not include any expenditures for customer premises equipment like set-top boxes and gateways. Comcast has begun offering streaming IP cable services to universities, has delivered its VOD service in IP to the Xbox and the Samsung SmartTV, and, as noted, has launched a live in-home IP cable streaming feature in two regions. For its part, TWC also has invested in developing IP cable services and has created IP "simulcast" feeds of the company's linear networks, enabling customers to access such programming on a variety of retail devices.<sup>202</sup>

The combined company will continue to invest in and advance the IP cable transition, combining both companies' strengths and experience. Doing so will yield a number of consumer and public interest benefits. IP cable:

- Enables consumers to access their cable and advanced video services in their homes on a wide variety of IP-enabled retail devices – video game consoles, tablets, and other connected devices;<sup>203</sup>

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<sup>202</sup> Glenn Britt, CEO, Time Warner Cable, Inc., Bank of America Merrill Lynch Global Telecom & Media Conference, Tr. at 9 (June 4, 2013).

<sup>203</sup> See, e.g., Yaron Raz, Migrating to IP in the Cable TV Environment: Benefits, Challenges, and Resolutions, CED, Oct. 16, 2013, <http://www.cedmagazine.com/articles/2013/10/migrating-to-ip-in-the-cable-tv-environment-benefits-challenges-and-resolution> Cable Edges to an IP Future, Digital TV Europe (July 3, 2013),

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- Shifts more of the network intelligence to the cloud, thereby allowing the combined company to rapidly roll out new functionalities to consumers;
- Reduces costs by allowing the combined company to simplify its existing distribution networks by relying on IP technology to transport all of its services and relying on innovative off-the-shelf IP-based retail devices and reducing its home equipment and inventory costs; and
  - Dramatically reduces energy consumption for consumer set-top boxes.

In short, like the parallel transition that is beginning to occur in the traditional phone system, the transition to IP cable will improve the “lives of millions of Americans . . . by the direct and spillover effects of the technology transitions, including innovations that cannot even be imagined today.”<sup>204</sup>

3. The Transaction Will Promote the Deployment of Advanced Voice Services and Enhance Competition in the Voice Marketplace.

By permitting the companies to combine the best aspects of their robust and innovative voice services, approval of this transaction will leave the merged company even better suited to offer an array of advanced voice services in competition with ILECs and other providers. The Commission has long recognized the pro-competitive and pro-consumer impact of cable’s offering of voice services.<sup>205</sup> The combined company will build on this strong foundation, facilitating more advanced services and features and a more robust alternative for voice customers.<sup>206</sup>

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<http://www.digitaltveurope.net/74622/cable-edges-to-an-ip-future> (“IP is seen as a desirable platform for video services as it will enable them to deliver multiroom and multiscreen services much more economically.”).

<sup>204</sup> Technology Transitions, Order, Report and Order, and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, GN Docket No. 13-5, FCC No. 14-5 ¶ 2 (rel. Jan. 31, 2014).

<sup>205</sup> See Press Release, FCC, FCC Approves Merger of AT&T Inc. and BellSouth Corp. (Dec. 29, 2006) (noting that “the rapid growth of intermodal competitors – particularly cable telephony providers . . . – is an increasingly significant competitive force in this market”); Connect America Fund, 26 FCC Rcd. 17663, App. I ¶ 5 n.11 (2011).

<sup>206</sup> Angelakis Decl. ¶ 30.



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Comcast offers its Xfinity Voice customers several enhanced features, including traditional features such as call waiting, three-way calling, and voicemail, as well as newer offerings such as caller ID provided over a television, laptop, or mobile device, and Readable Voicemail. Comcast also offers customers the ability to send and receive unlimited text messages to and from their Xfinity Voice telephone numbers through an application that can be downloaded on a customer's mobile device or using Xfinity Connect on a customer's computer.

Recent network investments have expanded dramatically the features available to Xfinity Voice customers. Comcast has moved to a new advanced and flexible IP Multimedia Subsystem ("IMS") network architecture, in which a handful of geo-redundant switches serve all Comcast voice customers. This architecture enables customers to access the service from different locations using a variety of methods and networks, including not only the wired connections provided by Comcast, but also Wi-Fi connections and public Internet connections provided by third parties, whether wired or wireless. For example, it enables "Voice 2go," which allows users to place calls over a Wi-Fi or data connection from their Comcast-assigned telephone numbers using an app downloaded to a mobile device, and to receive calls to their home numbers at multiple locations and on multiple devices using the "Advanced Call Forwarding" feature.

The transaction will allow Comcast to integrate the best features of its voice offerings with the TWC's best features, creating best-in-class voice service offerings. For example, TWC's voice offering currently lacks many of Xfinity Voice's nomadic features, such as the ability to place calls over a third-party Wi-Fi network or through a mobile device.

Finally, both companies have increasingly expanded their international reach and calling options. For example, TWC recently launched free Mexico calling, and Comcast has implemented eight different international calling options (as compared to TWC's two), thereby

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allowing customers to select from a range of possibilities that best meet their family and/or business circumstances. Together, the combined company's scale and existing relationships will enable it to reach more countries for its customers, and for very reasonable rates.

**C. Businesses of All Sizes Will Benefit from a Substantial Increase in Much-Needed Competition and the Accelerated Deployment of Advanced Services.**

The transaction will produce significant public interest benefits by combining the two companies into a stronger, more cost-efficient competitor that can offer new options and aggressively priced services to small, medium, and enterprise businesses across most of the country, challenging the incumbents that have dominated this marketplace for decades. The competitive benefits for the medium-sized and enterprise markets will be particularly substantial and far-reaching.

Although definitions are not uniform across the industry, Applicants generally view the business services space in which they operate as comprised loosely of the following four segments:

- Small business – generally fewer than 20 employees;
- Medium-sized business – generally 20-500 employees often across multiple sites in different geographic locations (includes certain regional and super-regional businesses);
- Enterprise/national accounts – generally over 500 employees across many sites; and
- Cell backhaul service to wireless carriers.

All four segments will benefit from this transaction.

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1. Comcast's and TWC's Proven Track Records, Though Limited in Scope to Date, Demonstrate the Power of Competition in This Space.

The approximately 23 million small businesses in the United States are the largest source of employment in the country,<sup>207</sup> and many of them, until recently, have been paying too much and receiving too little value from their communications service providers.<sup>208</sup> For many small businesses, until Comcast, TWC, and other cable operators entered the market, the only data transport option available was too often an expensive T1 line (at 1.54 Mbps) from a legacy provider; for too many others, slower services were their only options.<sup>209</sup>

Comcast recognized this opportunity several years ago and, since 2006, has aggressively extended its network to enable it to offer small businesses a competitive alternative for their data, voice, and video needs. Comcast moved swiftly to develop business-class billing, provisioning, and customer interface systems. Comcast has built out its network to {{ }} of the estimated {{ }} premise-based (rather than home-based) small businesses in its footprint and continues to expand this investment. It has recruited an aggressive sales force and built the required service delivery and service assurance expertise and systems. And it has brought to thousands of pharmacies, barber shops, dry cleaners, and restaurants a value proposition that was far better than what was previously available.<sup>210</sup>

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207 See Small Business Trends, U.S. Small Business Administration, <http://www.sba.gov/content/small-business-trends> (last visited Apr. 5, 2014).

208 See Letter from Jamie Belcore Saloom, Assistant Chief Counsel for Telecommunications, Small Business Administration, Office of Advocacy, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 05-25 (Dec. 5, 2013); Columbia Telecomms. Corp., *The Impact of Broadband Speed and Price on Small Businesses 1-4* (Nov. 2010), <http://www.sba.gov/content/impact-broadband-speed-and-price-small-business-1#>.

209 See Charlie Reed, *Comcast-TWC Merger to Create Fourth Largest Business Services Player*, Telecom Reseller, Feb. 13, 2014, available at <http://www.telecomreseller.com/2014/02/13/comcast-time-warner-cable-merger-to-create-fourth-largest-business-services-play>

210 See J.T. Ramsey, *Q&A with Bill Stemper, President of Comcast Business Services*, Comcast Voices (Feb. 12, 2013) (describing evolution of Comcast's Business Services).

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Comcast's investments and innovations in this area have led to growing marketplace success. And the company has won several awards for its small business services, including the Leading Lights Award last year for Most Innovative SMB Service and the Hosted VoIP leader award in 2012 and 2013. In the last several years, Comcast has also entered the medium-sized market segment and has made some promising gains.

TWC also robustly serves the small business segment in its footprint. As in the case of Comcast, this market segment accounts for the majority of TWC's business services revenue. But TWC also has more experience providing advanced services to medium-sized and enterprise businesses because of its presence in the New York and Los Angeles markets, and had an earlier start. Despite the fact that both companies are gaining momentum in their respective segments, in 2013 Comcast and TWC together had only approximately 10-15 percent market share for small- and medium-sized businesses in their footprints, and a de minimis share of enterprise businesses.<sup>211</sup>

Even at these initial levels of service, however, Comcast and TWC have already had a substantial competitive impact in the business services area, driving legacy providers to drop prices and to upgrade their services and add value for customers. Analyst reports have underscored aggressive price competition by Comcast and TWC in the small- and medium-sized

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<sup>211</sup> See Angelakis Decl. ¶ 32; Liana B. Baker, Comcast: Business services is sweet spot in Time Warner Cable deal, Wall St. J., Apr. 1, 2014, available at <http://www.reuters.com/article/2014/04/01/us-comcast-twc-business-analysis-idUSBREA3022F20140401> (“The higher you move upmarket, the tougher it's going to be. The combined company will have a bigger regional footprint than AT&T and Verizon but AT&T and Verizon have developed a national structure that'll be hard to crack . . .”) (quoting IDC analyst Matt Davis)). In particular, Comcast has achieved penetration in an estimated 20 percent of the small-business segment in its footprint, see Doug Mitchelson & Brian Russo, Deutsche Bank, Pay TV Guide / 4Q13 Wrap 35 (Mar. 6, 2014), and TWC estimates that it serves 12 percent of small- and medium-sized businesses in its area. According to third party estimates, Comcast and TWC combined reportedly only had a 6.4 percent share of the market for retail business broadband Internet service customers in the United States in 2013. See Charlie Reed, Comcast-TWC Merger to Create Fourth Largest Business Services Player, Telecom Reseller, Feb. 13, 2014, available at <http://www.telecomreseller.com/2014/02/13/comcast-time-warner-cable-merger-to-create-fourth-largest-business-services-play>

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business segments,<sup>212</sup> with a 2013 research report noting that new entry was decreasing Ethernet pricing for business by 10 percent or more a year.<sup>213</sup> And cable competition has led incumbent competitors to respond with service enhancements and aggressive new investments as well. For example, AT&T and CenturyLink have intensified efforts to expand fiber to businesses and reduce cable’s speed advantage, with AT&T pledging to extend fiber to one million businesses in its footprint and CenturyLink increasing the number of fiber-fed buildings by 17 percent between the third and fourth quarters of 2013.<sup>214</sup> Legacy providers also have responded by improving their offerings to bundle new data and voice features with basic network features.<sup>215</sup>

Comcast and TWC customers have praised price and feature enhancements as compared to their previous options:

- A Chicago school district contracted with Comcast and noted that “the district will save about 42 percent over what we were spending with AT&T.”<sup>216</sup>

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212 Rosston/Topper Decl. ¶ 119.

213 Insight Research Corp., US Carriers and Ethernet Services, 2013-2018, at 5 (Aug. 2013); see also Century Link Petition for Forbearance, WC Dkt. No. 14-9, at 15 n.52 (Dec. 13, 2013) (quoting TeleGeography, Global Enterprise Networks: Enterprise Service Pricing, at 16, 20 (Jan. 2013) (“Median Ethernet market prices remain volatile, fluctuating considerably year to year. . . . With this said however, the long-term price trend is clearly down. . . . As a growing number of carriers offer the service, [Virtual Private LAN Service] prices continue to decline.”); Craig Galbraith, CableCos Gain Ground in Ethernet, But AT&T, Verizon Still Lead, Channel Partners, Feb. 12, 2014, <http://www.channelpartnersonline.com/news/2014/02/cablecos-gain-ground-in-ethernet-but-at-t-verizon.aspx> (“Cable companies have developed a winning formula for the U.S. business Ethernet market. They are successfully leveraging their on-net fiber footprints to offer aggressive pricing and rapid service provisioning.”).

214 See Sean Buckley, AT&T’s \$14B Project VIP: Breaking Out the Business Service, U-verse Numbers, FierceTelecom, Sept. 24, 2013, <http://www.fiercetelecom.com/special-reports/atts-14b-project-vip-breaking-out-business-service-u-verse-numbers>; Glen Post, CEO, CenturyLink, Inc., Q4 2013 Earnings Call, Tr. at 5 (Feb. 12, 2014).

215 See Rosston/Topper Decl. ¶ 120; Israel Decl. ¶¶ 159-60. For example, Verizon has added Google Apps for Business for its business customers. Monte Beck, Vice President of Small Business Market, Verizon, Google Apps for Business Now Available for Verizon Customers, Google Official Enterprise Blog (Jan. 24, 2011), <http://googleenterprise.blogspot.com/2011/01/google-apps-for-business-now-available.htm>. Similarly, CenturyLink has enhanced its Core Connect product for business by adding website design and hosting, domain name registration, fax over email, and data backup services. See Century Link Business, Core Connect, <http://www.centurylink.com/smallbusiness/products/bundles/core-connect/> (last visited Mar. 30, 2014).

216 Denys Bucksten, District 112 Will Have A Tenfold Increase in Bandwidth This Year To Improve Internet Access, Chi. Trib., Aug. 12, 2013, available at [http://articles.chicagotribune.com/2013-08-12/news/ct-tl-lk-0815-highland-park-school-technology-20130812\\_1\\_north-shore-c](http://articles.chicagotribune.com/2013-08-12/news/ct-tl-lk-0815-highland-park-school-technology-20130812_1_north-shore-c)



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- In Pennsylvania, Comcast was able to provide a number of school districts with connectivity to the PA IUnet, an online, statewide, private network that allows teachers and students to communicate, collaborate, and share resources. According to Jared Mader, director of education technology for the Lincoln Intermediate Unit, which helped facilitate the agreement, “Comcast has allowed many of our districts to increase their bandwidth exponentially – and in some cases for half the price – which has given them access to cloud computing, video conferencing, and other online educational tools that had previously been cost-prohibitive for them.”<sup>217</sup>
- “Utz Quality Foods, Inc. is using Comcast Business Ethernet and Business Trunks to connect multiple office locations and distribution centers throughout the Eastern United States. . . . With its recent acquisitions of three major regional brands and distribution networks – Zapp’s Potato Chips, Wachusett Potato Chip, and The Bachman Co. – within the past 24 months, Utz realized it needed to reassess its existing wide area voice and data networking infrastructure to replace its old T1 lines. . . . ‘In aggregate, we realized a significant savings, while enjoying more bandwidth than what our T1 lines had given us,’” (quoting J. Ed Smith, chief information director).<sup>218</sup>
- In Florida, “Comcast has been aggressively pursuing business that traditionally might be handled by legacy phone companies such as AT&T . . . . ‘We are saving money over what we were previously paying for our old phone system, and now we have a completely cloud-based solution that gives our team full freedom to work wherever they need to.’”<sup>219</sup>
- Union Bank in Ohio used T-1 broadband lines provided by five separate telecommunications carriers before switching to TWC. Switching to TWC has provided many benefits. For example, according to a TWC case study: “[T]he data transmission speed has doubled, having gone from 1.5 Mbps on the old T-1 lines to a blazing fast 3 Mbps bandwidth on [TWC]’s state-of-the-art fiber-optic network. As a result, the bank’s data congestion problems are a thing of the past . . . [TWC] was able to fulfill the bank’s most stringent network security needs through its managed security program, which includes filtering and around-the clock monitoring that Union Bank is required to maintain . . . the solution has

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<sup>217</sup> School CIO, Back Office Business: Pennsylvania Districts Get Low-Cost Ethernet Service, Jan. 31, 2014, <http://www.schoolcio.com/cio-feature-articles/0109/back-office-business/54654>.

<sup>218</sup> Utz Upgrades Connectivity for Offices, Distribution Centers, Evening Sun, Apr. 24, 2013, available at [http://www.eveningsun.com/news/ci\\_23096622/utz-upgrades-connectivity-offices-distribution-centers-including-hanover](http://www.eveningsun.com/news/ci_23096622/utz-upgrades-connectivity-offices-distribution-centers-including-hanover).

<sup>219</sup> Kevin Gale, Cutting Edge Phone System Helps Small Business Owners, Road Warriors, S. Fla. Bus. J., Sept. 23, 2013, available at <http://www.bizjournals.com/southflorida/blog/2013/09/comcast-adds-mobile-feature-to.html> (quoting Jordi Tejero, owner of CRS Technology Consultants).





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resulted in a tremendous reduction in the monthly cost of Union Bank’s broadband service.”<sup>220</sup>

- Switching to TWC has provided many benefits to the City of Colleyville, TX. For example, according to a TWC case study: “The [TWC] secure and fiber-rich [Ethernet Virtual Private Line] network, scalable up to 10 Gbps+, helps with routine government tasks . . . . It has also enabled . . . Colleyville to centralize servers, applications and terabytes of data storage from six to two data center facilities. The centralization has brought numerous enhancements to city administration, such as hardware and electricity cost savings, data synchronization across all its facilities, centralized sewage and water monitoring systems, enabling online training for firefighters and police officers and desktop virtualization.”<sup>221</sup>

Nevertheless, Comcast and TWC have faced constraints in attempting to replicate their market success on a larger scale. As described below, and as explained by Drs. Rosston and Topper, and Dr. Israel, respectively, the added scale and geographic reach, as well as the complementary strengths afforded by the transaction, will enhance the combined company’s ability to be a more significant player in the medium-sized business segment and beyond.<sup>222</sup>

2. The Transaction Will Enhance Competition for Medium-Sized, Regional, Super-Regional, and Enterprise Businesses.

a. The Combined Company’s Greater Scale, Scope, and Efficiency Will Overcome Key Constraints.

To date, geographic constraints have hindered Comcast, TWC, and other cable companies from competing effectively against incumbent providers with national scale and scope for larger business customers that have multiple office locations in various states.<sup>223</sup>

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220 Time Warner Cable, The Union Bank Company Cashes in on Blazing Fast Ethernet and Managed Security Services from Time Warner Business Class, Case Study, <http://www.timewarnercable.com/en/business-home/resource-center/case-studies/union-bank-company.html>.

221 Time Warner Cable, City of Colleyville Modernizes their Network with Time Warner Cable Business Class Fiber-Rich Ethernet Services, Case Study (Nov. 2013), <http://www.timewarnercable.com/en/business-home/resource-center/case-studies/city-of-colleyville.html>.

222 See Rosston/Topper Decl. ¶¶ 122-138; Israel Decl. ¶¶ 133-57.

223 See Rosston/Topper Decl. ¶ 125.

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Where a customer’s business spans multiple areas, a cable company with a limited footprint is often not an option at all. And while Comcast and TWC could theoretically partner to serve customers that span both companies’ footprints – and in fact have ongoing efforts to do so – such offerings are often difficult to arrange and manage for both the customer and for the providers. Although some customers are willing to work with an “aggregator” to cobble together multiple providers’ offerings to serve their various sites, many customers refuse to use aggregators or are willing to consider such options only where one provider can serve a majority of the locations using its own network.<sup>224</sup> And customers tend to prefer the higher level of reliability that results when a network is built to a common set of technical standards, is managed by a single network operations center, and offers a single point of contact for technical or other customer-service issues. As Dr. Israel explains, both Comcast and TWC now face significant “coordination problems associated with multiple firms serving a single customer,” including differences in business practices between Comcast and TWC themselves. These coordination problems are often impossible to resolve via contracting.<sup>225</sup>

Another constraint currently faced by Comcast and TWC is “double marginalization” under which the price that Comcast provides to its customer reflects two profit margins: the margin that the other supplier (say, TWC or another provider) includes in its wholesale price to Comcast and the margin that Comcast includes in the retail price to the customer. Dr. Israel details how “lower margins make it less profitable for Comcast (or TWC) to bid on a project and increase the likelihood that a project will fail to meet Comcast’s (or TWC’s) internal hurdle

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224 Angelakis Decl. ¶¶ 35-36.

225 Israel Decl. ¶ 147; see also id.¶ 148; Rosston/Topper Decl. ¶ 141.

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rates. To the extent that the lower return arising from double marginalization prevents Comcast (or TWC) from bidding on a project, competition in the business services segment is reduced.”<sup>226</sup>

As a result of the foregoing constraints, Drs. Rosston and Topper observe, cable companies often are viewed as not being able to make a competitive offering in this market segment.<sup>227</sup> The transaction will help change that by extending Comcast’s geographic reach and enhancing the combined company’s investment incentives.

Medium-Sized, Regional, and Super-Regional Businesses. Economies of scale will allow the combined company to drive fiber and other high-speed capacity technology deeper into the network, creating the broadband infrastructure that is needed to bring business locations “on-net.” <sup>228</sup> TWC already has 58,000 commercial buildings connected with fiber in its footprint, and Comcast has about [[ ]] on-net fiber-connected buildings in its footprint. Both Comcast and TWC provide dedicated Internet access to businesses over their fiber networks, offering speeds of up to 10 Gbps. Where fiber is not an option, Comcast has helped pioneer the offering of “Ethernet over HFC” (hybrid fiber/coax) that delivers Metro Ethernet at guaranteed speeds of up to 10 Mbps symmetrical and provides a cost-effective Ethernet option for many customers.<sup>229</sup> The combined company will service a greater total number of on-net fiber and HFC buildings that can serve multi-site customers than either company does alone, and will have greater incentive to build out even more – making it a more viable competitive alternative to legacy providers. Furthermore, increasing the number of “on-net” sites the company serves will further

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226 Israel Decl. ¶ 151; see also Rosston/Topper Decl. ¶ 127.

227 See Rosston/Topper Decl. ¶ 120.

228 Angelakis Decl. ¶¶ 33-34.

229 With its Ethernet over HFC service, Comcast estimates that it makes Ethernet services available to approximately one million buildings.

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reduce the costs and operational barriers for businesses with multiple sites and facilitate the re-investment of operating cash flow in connecting additional sites to its networks.<sup>230</sup>

An expanded footprint will also enable the combined company to provide an attractive unified service to regional businesses and super-regional businesses with offices adjacent to or clustered around areas previously split between the Comcast and TWC markets. These opportunities may be greatest in:

- Northeast Corridor: Boston (Comcast) New York (TWC) New Jersey (Comcast) Philadelphia (Comcast) Baltimore (Comcast) Washington, DC (Comcast);
- Midwest: Pittsburgh (Comcast) Cleveland (TWC) Columbus (TWC) Detroit (Comcast) Chicago (Comcast);
- Midwest 2: Milwaukee (TWC) Green Bay (TWC) Chicago (Comcast) Indianapolis (Comcast) Kansas City (TWC) Lexington (TWC) Louisville (TWC);
  - Texas: Houston (Comcast) Dallas/Fort Worth (TWC) Austin (TWC) San Antonio (TWC);
- Southeast: Greensboro (TWC) Charlotte (TWC) Columbia (TWC) Charleston (Comcast/TWC) Atlanta (Comcast) Mobile (Comcast) Tallahassee (Comcast) Jacksonville (Comcast) Miami (Comcast); and
- Pacific Coast: San Diego (TWC) Los Angeles (TWC) San Francisco (Comcast) Sacramento (Comcast) Portland (Comcast) Seattle (Comcast).

In addition to making it possible to reach and serve larger multi-site customers in a uniform fashion, the combined company's larger scale will enhance competition in other dimensions as well. Notably, it will allow the company to build super-regional Metro Ethernet clusters, thereby further consolidating key parts of the company's network and fostering more efficient delivery of services. Scale also will enable the combined company to spread its

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<sup>230</sup> Likewise, a reduction in "off network" sites will allow Comcast to spend fewer dollars on processes devoted to managing interconnection contracting, service delivery, and service assurance efforts.

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investments in product procurement and development over a larger potential base of customers, which will facilitate more investment and enhance the combined company’s ability to compete with the incumbents (e.g., Comcast’s Business Voice Edge Hosted PBX Service, described further below, is currently available to 6 million businesses, and post-transaction the service could be made available to 10 million prospects).

As Drs. Rosston and Topper explain, “the combined entity will be able to offer lower prices and will therefore be a stronger, more aggressive competitor, to the benefit of business customers,” because “[t]he transaction will likely reduce prices for businesses whose locations span the Comcast and TWC networks by reducing or eliminating double marginalization and reducing the cost of underlying network services required for an out-of-footprint connection.”<sup>231</sup> Dr. Israel similarly concludes that “the transaction alleviates both the coordination issues and the double-marginalization problems and makes it more profitable for the combined firm to bid on (and win) contracts from super-regional businesses.”<sup>232</sup>

All of these scale, integration, and operational efficiencies will mean the combined company will be better equipped than either company alone could be to develop, deploy, maintain, and consistently upgrade innovative products and services for larger business customers.

Enterprise Businesses. Delivering services to national enterprise customers requires substantial investment in network infrastructure, data centers, and other facilities.<sup>233</sup> Comcast estimates that the cost of these network investments alone will exceed \${{ }} billion.<sup>234</sup> The

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231 Rosston/Topper Decl. ¶ 129; see also Israel Decl. ¶¶ 117-118, 142-144.

232 Israel Decl. ¶ 153.

233 See Rosston/Topper Decl. ¶ 136.

234 See id. ¶ 137.

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increased number of on-net fiber and HFC buildings that can serve multi-site customers, as well as the increased scale, integration, and operational efficiencies described above will also establish the combined company as a meaningful alternative for enterprise companies that have many locations throughout the expanded Comcast-TWC footprint.<sup>235</sup> An enterprise customer may still need to rely on an aggregator for some of its locations to fill in the holes outside the combined company's footprint. However, with its greater footprint post-transaction, the company will be more likely to be a contender for the aggregator role because of its larger number of locations.<sup>236</sup> And as the main provider, the company can play a bigger role in ensuring quality service and reducing cost by avoiding double marginalization.<sup>237</sup>

Even where Comcast and TWC have been able to win some of this enterprise business in the past, they have been able to do so only on a patchwork basis. For example, TWC currently provides business services to the Cleveland Clinic and is partnering with the clinic to provide an in-home health solution to reduce the rate of readmissions. The Cleveland Clinic has two large campuses in Florida in the Comcast footprint, so TWC has not been able to offer those campuses its services or extend the in-home health solution trial to patients of the Cleveland Clinic who live in Florida or are there from Cleveland for part of the year. Approval of the transaction would change that for the first time, allowing the company to offer a unified solution to the Clinic. In short, for that entity, and for many others like it, the transaction offers a new alternative solution for business communications, and the promise of lower prices and more innovation – benefits that will redound to the consumers those businesses serve.

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235 See Rosston/Topper Decl. ¶¶ 135-138.

236 Angelakis Decl. ¶ 37.

237 Israel Decl. ¶¶ 153-58.

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b. Combining Comcast's and TWC's Complementary Business Innovations Will Further Enhance Competition.

Beyond the significant benefits driven by larger scale, the combined company will be able to compete more effectively for medium-sized and enterprise business customers by combining Comcast's and TWC's respective product offerings into a "best of the best" service portfolio, thereby capitalizing on their complementary strengths and marketing expertise.<sup>238</sup>

For example, Comcast currently offers some services to business customers that TWC does not, including Comcast's Business VoiceEdge ("BVE"), which provides web-based PBX functionality with a host of nomadic features. This includes a "Be Anywhere" feature that allows customers to make and receive calls from any device at any location with one phone number, and to use 4-digit extensions to contact colleagues from their mobile phones. BVE also includes "Teleworker," which enables seamless integration of remote and work-at-home employees into a company's phone infrastructure. In 2013, Comcast was listed as a Leading Hosted VoIP Provider on the Infonetics Research 2013 North America Business VoIP Service Leadership Scorecard.<sup>239</sup>

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238 Comcast is currently listed as the 8th largest U.S. Metro Ethernet provider. TWC is 5th. See Press Release, Vertical Systems Group, 2013 U.S. Carrier Ethernet Leaderboard (Feb. 12, 2014), <http://www.verticalsystems.com/vsglb/2013-u-s-carrier-ethernet-leaderboard/>. Additionally, although Comcast only launched its efforts in the medium-sized business market segment in 2010, it has already been recognized for its innovative efforts, winning a variety of Carrier Ethernet awards, including 2013 Metro Ethernet Forum awards for Regional Service Provider of the Year, Best Marketing, and Best Carrier Ethernet Business Application, as well as a 2012 Best Practices Award from Frost & Sullivan for North American MSO Ethernet Services Competitive Strategy Leadership. See Press Release, Comcast Corp., Comcast Introduces New Metro Ethernet Services for Mid-Sized Businesses (May 16, 2011), <http://corporate.comcast.com/news-information/news-feed/comcast-introduces-metro-ethernet-services-to-address-bandwidth-a> Bill Stemper, Comcast Wins Metro Ethernet Forum Service Provider of the Year Award, Comcast Voices (Nov. 22, 2013), <http://corporate.comcast.com/comcast-voices/comcast-wins-metro-ethernet-forum-service-provider-of-the-year-award>.

239 Press Release, Infonetics, Infonetics Scoreboard Ranks Comcast, Verizon, 8x8, XO Top N. American Business VoIP Providers, IP Connectivity Becoming Commodity (May 14, 2013), <http://www.infonetics.com/pr/2013/North-America-Business-VoIP-Scorecard.asp>.

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Meanwhile, TWC, through its NaviSite subsidiary, provides a range of cloud-based solutions that appeal to medium-sized and enterprise businesses, including “Infrastructure as a Service” and “Desktop as a Service,” and customized managed hosting, managed application, and message solutions, along with other related IT solutions and professional services.<sup>240</sup> TWC also offers Session Initial Protocol (“SIP”) trunking, data center services, and other high-end business services products, and has received a “Metro Ethernet Forum” 2.0 Certification in all eight Ethernet product categories.<sup>241</sup> As Drs. Rosston and Topper conclude, “[c]ombining the complementary products and services offered by Comcast and TWC under a single company will enhance competition in business services” in a way neither company can do today.<sup>242</sup>

3. The Transaction Will Enhance Competition for Wireless Backhaul Services.

With mobile data traffic growing incredibly rapidly, wholesale wireless backhaul is also an emerging and significant national service that the combined company will be better positioned to provide in the years ahead.<sup>243</sup> Comcast and TWC have both responded to the growing need for wireless carriers to transport wireless traffic from their cell towers on high-capacity fiber facilities to make the mobile broadband ecosystem work more efficiently and reliably. TWC has grown its business through strategic acquisitions – recently purchasing DukeNet, an 8,700-mile regional fiber-based network that provides wholesale wireless backhaul and other business

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<sup>240</sup> See Cloud Services, NaviSite, <http://www.navisite.com/> (last visited Apr. 5, 2014).

<sup>241</sup> See The MEF Certification Program, MEF, <http://www.metroethernetforum.org/certification/mef-certification-programs> (last visited Mar. 30, 2014). Comcast was the first service provider to receive CE2.0 certification. See Comcast Business Services is World’s First CE 2.0 Service Provider, Telecom Review, [http://telecomreviewna.com/index.php?option=com\\_content&view=article&id=334:comcast-business-services-is-worlds-first-](http://telecomreviewna.com/index.php?option=com_content&view=article&id=334:comcast-business-services-is-worlds-first-) (last visited Apr. 2, 2014). Comcast is certified in six of the eight CE 2.0 categories.

<sup>242</sup> Rosston/Topper Decl. ¶ 139.

<sup>243</sup> Angelakis Decl. ¶ 38.



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services to customers in Alabama, Florida, Georgia, North Carolina, South Carolina, Tennessee, and Virginia. TWC currently provides wireless backhaul to approximately 14,000 cell sites, while Comcast serves approximately 8,500 cell sites. Comcast's and TWC's current shares in this segment are small: the companies together had only an estimated 2.8 percent market share in 2013.<sup>244</sup>

As with the medium-sized and enterprise segments discussed above, the transaction will make the combined company a more effective wireless backhaul competitor to the ILECs due to:

- Improved network reach that will allow the company to serve a much higher proportion of a mobile operator's sites;
- Improved operations resulting from consistency in approach and technology on a larger fraction of a mobile operator's sites;
- Increased ability to build out fiber and invest in wireless backhaul infrastructure because of additional scope and scale; and
- Increased number of on-net locations, which will allow the operating cash flow from those sites to be re-invested in plant expansion to marginal sites.<sup>245</sup>

By utilizing not only TWC's assets, but also its knowledge and expertise of this business, Comcast will be better positioned to offer mobile operators the services they want in more locations.

4. The Transaction Will Inure to the Benefit of Small Businesses.

The combined investments and network upgrades that are necessary to serve medium-sized, enterprise, and wholesale wireless backhaul customers across the combined company

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<sup>244</sup> Charlie Reed, Comcast-TWC Merger to Create Fourth Largest Business Services Player, Telecom Reseller, Feb. 13, 2014, available at <http://www.telecomreseller.com/2014/02/13/comcast-time-warner-cable-merger-to-create-fourth-largest-business-services-play>

<sup>245</sup> See Angelakis Decl. ¶ 39.

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footprint will also inure to the benefit of small business (and residential customers as well) in a number of ways.

First, since products developed for the medium-sized or enterprise segments can often be offered to/repackaged for small businesses, new product development driven by greater competition for larger businesses will also benefit small business customers. Second, small businesses (and residential customers) will enjoy the “spillover effects” from investments and plant upgrades made to serve larger businesses.<sup>246</sup> For example, consider a strip mall with 10 separate small business stores that previously did not have a competitive alternative to the ILECs for their broadband, voice, or video services, because it was cost-prohibitive for Comcast or TWC to build out its network for so few additional customers. If the combined company extends the last mile of its network to serve a medium-sized or enterprise customer with, say, five different sites, one of which is near the strip mall, those 10 stores may become serviceable from the same network extension. As Dr. Israel observes:

[T]hrough a forward-looking lens, every build-out Comcast does for a business customer in the future lays down more network infrastructure to serve more businesses and residential customers. Building out the network infrastructure in a way that creates excess capacity effectively reduces the marginal costs of connecting more business and residential customers near the build-out. All expansions of cable plant and investments in core network to serve newly profitable business customer opportunities directly benefit residential customers as well (through a faster core network and more homes passed). In a similar vein, the expansion of broadband to certain businesses within a footprint increases the likelihood of providing access to other business and residential customers in the future.<sup>247</sup>

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246 Israel Decl. ¶¶ 181-86; Rosston/Topper Decl. ¶ 63.

247 Israel Decl. ¶ 184.

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The FCC has recognized that cable entry “foster[s] facilities-based competition in the enterprise market,” and that this promotes “a long-standing goal.”<sup>248</sup> As shown above, the transaction will increase competition in all business segments in multiple ways. This is an area of the communications marketplace that is in serious need of increased competition. The Commission can move the needle substantially in this regard by approving this transaction.

D. The Transaction Will Accelerate the Deployment and Adoption of Next-Generation Cable Advertising Technologies that Will Benefit Advertisers and Consumers.

The transaction will accelerate the expanded deployment and adoption of next-generation advertising technologies – notably (1) dynamic ad insertion for VOD and other platforms, and (2) addressable advertising – that will create new benefits for advertisers, content providers, and consumers alike.

Dynamic Ad Insertion. Traditionally, VOD advertising was static and often became stale. The ads were inserted in programming in advance and could not later be modified, regardless of how long the VOD asset was available to consumers. Dynamic ad insertion transforms this platform by separating the ads from the programming stream and dynamically inserting them into VOD segments, and ultimately into other platforms like TV Everywhere (and even cloud DVR).<sup>249</sup> This technology thus allows advertisers to tailor their messages on this platform in a more timely manner, giving them more meaningful access to the increasingly large

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<sup>248</sup> Applications Filed for the Acquisition of Certain Assets of CIMCO Commc’ns, Inc. by Comcast Phone LLC, Comcast Phone of Mich., LLC and Comcast Business Commc’ns, LLC, Memorandum Opinion and Order and Order on Reconsideration, 25 FCC Rcd. 3401 ¶ 4 (2010) (“Comcast’s acquisition of CIMCO’s assets and expertise will result in significant public interest benefits, in part because the transaction will foster facilities-based competition in the enterprise market, a long-standing goal of the Commission.”); Applications Filed for the Transfer of Control of Insight Commc’ns Co. to Time Warner Cable Inc., Memorandum Opinion and Order, 27 FCC Rcd. 497 ¶ 23 (WCB 2011) (“[T]he proposed transaction likely will provide benefits to residential and business customers through the combined companies’ increased ability to compete with the incumbent LEC in the provision of voice service and service bundles.”).

<sup>249</sup> See Angelakis Decl. ¶ 41.

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segment of consumers who engage in time-shifted viewing or view content using devices other than a traditional television (e.g., a computer, tablet, or smartphone).<sup>250</sup>

Comcast and TWC have both been developing and deploying dynamic ad insertion in VOD, online, and other platforms.<sup>251</sup> However, further investment and work is needed to make this platform more attractive to advertisers, by improving existing dynamic ad insertion technologies and unifying measurement metrics across platforms.<sup>252</sup> The transaction will help address these challenges and unlock the real potential for this new technology for three reasons.<sup>253</sup>

First, being able to spread the costs for this new technology over an expanded customer base will allow for greater investment in enhancing and further deploying this technology across multiple platforms.

Second, the combined company's increased scale will likely spur advertisers and ratings agencies to unite around common audience measurement and effectiveness tools for these new platforms and ad technologies. This, in turn, will create greater momentum for their adoption

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<sup>250</sup> See, e.g., Comcast Spotlight, Dynamic Ad Insertion: Unlocking the Value of Video on Demand, at 6, 9, [http://www.comcastspotlight.com/takefive/assets/Take\\_Five\\_10\\_DAI\\_Webcast\\_FINAL.pdf](http://www.comcastspotlight.com/takefive/assets/Take_Five_10_DAI_Webcast_FINAL.pdf). Nielsen estimates that between 2011 and 2013 the average time spent per adult per day watching time-shifted television has increased from 25 minutes to 32 minutes. Additionally, the time using the Internet, a smartphone, or a multimedia device has increased from 112 minutes to 130. See Nielsen Co., An Era of Growth: The Cross-Platform Report, at 9 (Mar. 5, 2014), <http://www.nielsen.com/us/en/reports/2014/an-era-of-growth-the-cross-platform-report.html>.

<sup>251</sup> 40 percent of Comcast's VOD viewing is in the C3 window. See Jeff Baumgartner, Advanced Ads: 40% of Comcast VOD Viewing Is in C3 Window, Multichannel News, Feb. 28, 2014, available at <http://www.multichannel.com/distribution/advanced-ads-40-comcast-vod-viewing-c3-window/148580>. Comcast had about 1 billion dynamic ad insertion impressions last year and expects to double this in 2014. Id.

<sup>252</sup> See Leslie Ellis May, Dynamic Ad Insertion and the Upfronts, Multichannel News, May 19, 2013, available at <http://www.multichannel.com/blogs/translation-please/dynamic-ad-insertion-and-upfronts>.

<sup>253</sup> See Jeff Baumgartner, Mega-Merger Could Be A Boon for Advanced Ads, Multichannel News, Feb. 24, 2014, available at <http://www.multichannel.com/finance/mega-merger-could-be-boon-advanced-ads/148461> (“[T]he proposed Comcast-TWC deal could lead to seismic shifts in how programmers and operators buy and sell ads, and pave the way for a broader use of new technologies.”).

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and deployment.<sup>254</sup> As Drs. Rosston and Topper point out, despite the technical capabilities, uptake by content providers and advertisers of dynamic ad insertion has been far short of its potential “because viewer measurement tools that include VOD and alternate devices and could accurately value dynamic ad insertion on those platforms are not fully developed.”<sup>255</sup> They further explain:

With Comcast’s increased scale and ability to offer more VOD advertising to more customers following the transaction, Comcast may be able to work more closely with ratings firms to accelerate development of measures that include VOD and alternate devices, which in turn would provide incentives for content providers and advertisers to take advantage of dynamic ad insertion in VOD content.<sup>256</sup>

Third, as discussed above, Comcast is a leader in VOD platforms and content. The transaction will extend Comcast’s VOD and TV Everywhere platforms and digital rights to TWC’s systems, particularly in the important markets of New York<sup>257</sup> and Los Angeles, creating additional cable advertising options in these Direct Marketing Areas (“DMAs”).<sup>258</sup>

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254 See Rosston/Topper Decl. ¶ 145.

255 Id.

256 Id.

257 In the New York market in particular, the integration of TWC with Comcast Spotlight may also help the company build on complementary strengths in managing local “interconnect” advertising arrangements. Interconnects allow MVPDs to pool their advertising avails in an area and then offer them to advertisers. For example, using an interconnect, a car dealer, in one transaction, can schedule a commercial to run at the same time on the same channel on all participating MVPDs. The largest television market in the country, New York, has one interconnect managed by Cablevision that includes Cablevision and Comcast, and a quasi-interconnect (a joint sales agreement that does not easily allow for simultaneous insertion) managed by TWC. Following the transaction, Comcast intends to combine the two interconnects to serve advertisers better. In particular, a single interconnect would create efficiencies for local advertisers by allowing them to target virtually all MVPD households in the greater New York market with a single buy. The combined interconnect would also facilitate hyper-local advertising. Manhattan currently contains two local zones. Comcast’s philosophy is to create smaller, more discrete zones. This would increase the number of local zones in Manhattan and benefit advertisers who want to reach hyper-local audiences. In addition, consolidation of a large base of the advertising technologies discussed above into one interconnect may help galvanize other interconnect participants to accelerate adoption of these technologies.

258 See id. ¶ 152.

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While dynamic ad insertion will be of most interest to advertisers themselves, the increased deployment and uptake of this technology made possible by the transaction will yield benefits for content providers by allowing them to better monetize programming on VOD and other cable platforms, providing a new source of revenue to support high-quality programming and possibly even reducing pressure on license fees.<sup>259</sup> This, in turn, should help consumers by making it more likely that programmers can and will make more popular programming available, including “banking” entire past seasons on VOD to allow consumers to catch up, as USA Networks recently did with *Suits*.<sup>260</sup> As Drs. Rosston and Topper point out, if this proves successful and monetizable, “[a]dvanced advertising at the greater scale afforded by this transaction could result in consumers receiving discounted or free access to some of the same content they are purchasing elsewhere at a monthly out-of-pocket cost of \$8-10/month.”<sup>261</sup>

Addressable Advertising. Similar benefits may result with respect to addressable advertising technology.<sup>262</sup> Addressable advertising allows marketers purchasing advertising spots on cable network programs to augment geographic zone targeting (i.e., advertising targeted at specific zip codes or neighborhoods) with advertising targeted to individual households based on demographics and other household-specific characteristics.<sup>263</sup> The advertiser identifies the preferred demographics of its target audience, and then the cable operator targets ads to matching neighborhoods or households using various data, in compliance with the Cable Act’s stringent

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259 See id. ¶ 147.

260 See Jon Lafayette, VOD Stunt Has Viewers Trying On USA’s ‘Suits’, *Broadcasting & Cable*, Jan. 14, 2013, available at <http://www.broadcastingcable.com/news/advertising-and-marketing/vod-stunt-has-viewers-trying-usas-suits/53067?nopaging=>

261 Rosston/Topper Decl. ¶ 147.

262 See Ryan Joe, CES 2014: Advances in Addressable TV, *Ad Exchanger*, Jan. 14, 2014, <http://www.adexchanger.com/digital-tv/ces-2014-advancements-in-addressable-tv/>.

263 See Jeanine Poggi, The CMO’s Guide to Addressable TV Advertising, *Advertising Age*, Feb. 19, 2014, available at <http://adage.com/article/cmo-strategy/cmo-s-guide-addressable-tv-advertising/291728/>.

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privacy protections.<sup>264</sup> Addressable advertising offers important benefits to existing advertisers who can improve the efficiency and cost-effectiveness of their marketing efforts, and may provide a new option to advertisers that might not previously have considered the cable network ads because their products appeal to narrow, niche markets rather than a mass market.

The transaction will accelerate the deployment of addressable advertising not just due to the greater scale and investment potential discussed above,<sup>265</sup> but also for two additional reasons.

First, while Comcast has addressable ad technology that it is planning to roll out more widely by the end of 2014, TWC has not deployed addressable advertising on its platform. Accordingly, the transaction will extend Comcast's addressable ad technology and plans to the TWC systems.

Second, the expanded geographic reach of the combined entity will create attractive new options for advertisers to reach cable network audiences efficiently. As Drs. Rosston and Topper explain, “[a]dvertisers who seek to advertise to a television audience today generally purchase advertising time from cable and broadcast networks and sometimes supplement those purchases with a handful of spot market advertising purchased from local broadcast stations and aggregator

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See 47 U.S.C. § 551.

<sup>265</sup> The advertising success of other technology-focused companies – with an even more expansive reach (and earlier start) than the combined company would have – underscores the benefits of scale for developing next-generation advertising technologies that enable more precise audience targeting. For example, Google's advantage in targeted advertising technology is well documented; it is recognized as “far and away the biggest player in the ad-tech industry,” serving over 300 billion ad impressions per month. See Alex Kantrowitz, Just Look At How Google Dominates Ad Tech: Rate New Data Shows Just How Big Google's Ad-Tech Advantage Is, Advertising Age, Oct. 18, 2013, available at <http://adage.com/article/digital/google-dominates-ad-tech/244824/>. And the once nascent mobile advertising space has now seen huge growth thanks to efforts by Facebook and Google. See Victor Luckerson, The Mobile Ad Market is Exploding Because of These Two Companies, Time, Mar. 19, 2014, available at <http://time.com/#30517/the-mobile-ad-market-is-exploding-because-of-these-two-companies/>. Google netted 49 percent of all mobile ad revenue in 2013, and is projected to \$14.7 billion in mobile ad revenue this year. See Driven by Facebook and Google, Mobile Ad Market Soars 105% in 2013, eMarketer, Mar. 19, 2014, available at <http://www.emarketer.com/Article/Driven-by-Facebook-Google-Mobile-Ad-Market-Soars-10537-2013/1010690#EhhmEWkZ> with 172 million users in the U.S. and Canada alone, earned 53 percent of its ad revenue, or \$1.37 billion, from next-generation mobile ads. See id.

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NCC Media.”<sup>266</sup> The “spot” cable advertising<sup>267</sup> available from NCC runs across a variety of MVPDs, many of which do not offer addressable advertising and other advanced capabilities. As such, “Comcast’s greater geographic footprint and accelerated rollout of advanced advertising services resulting from this transaction will create an alternative for advertisers that want Comcast’s targeted or addressable ad services in its markets and can accept the absence of full national reach.”<sup>268</sup> Further, if the addressable advertising technology becomes more standardized, as it may once Comcast has invested in and developed it, and spreads across the industry, it will be increasingly interesting to advertisers, since addressability is more valuable as the target audience grows – i.e., with a bigger starting audience, a larger number of “hits” is likely.<sup>269</sup>

And when addressable technology is combined with the dynamic ad insertion capability described above, the enhanced value and benefits are particularly significant.<sup>270</sup> For the first time, advertisers of all types and sizes, including national advertisers, seeking to target customers with spot cable advertising in certain key markets across the country will be able to look to the

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<sup>266</sup> Rosston/Topper Decl. ¶ 151. NCC Media, a joint venture owned by Comcast, TWC, and Cox Cable, represents national spot ad sales for MVPDs in all 210 U.S. markets and reaches more than 80 million households. See NCC Media – Local Hits the Spot, AdWeek, Apr. 22, 2013, available at <http://www.adweek.com/sa-article/ncc-media-148715>.

<sup>267</sup> “Spot advertisers” are advertisers that buy advertising at a local Designated Market Area, zone, or subzone level. See, e.g., Spot Cable Advertising, Comcast Spotlight, <http://www.comcastspotlight.com/advertising-solutions/on-air/spot-cable> (last visited Apr. 3, 2014).

<sup>268</sup> Rosston/Topper Decl. ¶ 152; see also Jeanine Poggi, What Comcast-Time Warner Cable Means for Advertising: A Better Alternative for National Advertisers, More Reach for Addressable Ads, Advertising Age, Feb. 14, 2014, available at <http://adage.com/article/media/comcast-time-warner-cable-means-advertising/291713/> (“Acceleration of addressable advertising. One of the biggest obstacles to ad targeting at the household level has been a lack of broad reach, which makes running campaigns across multiple operators a clumsy and inefficient effort. The merger should eventually help expand the addressable universe to the kind of scale that advertisers desire and speed up advances in areas such as dynamic ad insertion.”).

<sup>269</sup> See Rosston/Topper Decl. ¶ 149.

<sup>270</sup> Jeanine Poggi, NBC Universal to Start Selling Addressable Ads in Video on Demand: ‘NBCU+ Powered By Comcast’ Will Expand VOD Addressability,” Advertising Age, Jan. 30, 2014, available at <http://adage.com/article/media/nbcu-comcast-partner-advanced-advertising-product/291401/>.



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combined company to insert their timely, dynamic, addressable ads in a VOD asset or other platform.<sup>271</sup>

Finally, consumers not only will be able to enjoy additional highly popular content on this convenient platform as described above, but they will also receive advertisements, promotions, and discounts that are more relevant to them and their families.<sup>272</sup>

E. The Transaction Will Generate Other Significant Public Interest Benefits.

1. Consumers Will Benefit from the Extension to the TWC Systems of Various Commitments and Obligations in the NBCUniversal Order, as Well as Comcast's Best-in-Class Community Investment and Diversity Programs.

Additional benefits and protections will arise from the extension to the acquired systems of (1) various pre-existing obligations and other commitments developed in connection with the NBCUniversal transaction and (2) Comcast's best-in-class diversity and community investment programs.

The NBCUniversal transaction contained more than 150 conditions, including substantive subparts. As demonstrated in the last three annual compliance reports, and as detailed in Exhibit 9, in over three years, Comcast has had only one instance where the FCC took issue with the company's compliance, which was fully addressed by a voluntary consent decree.<sup>273</sup>

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<sup>271</sup> Rosston/Topper Decl. ¶ 145; see Jon Lafayette, What a Comcast-TWC Merger Would Mean for the Rest of the TV Business, *Broadcasting & Cable*, Feb. 17, 2014, available at <http://broadcastingcable.com/sites/default/files/public/CommFeb17.pdf> (“[T]he merger hastens tech innovation on the advertising front, as it ‘eventually harmonizes 30 million households on a common ad tech platform.’ That could enable addressable advertising and dynamic ad insertion in VOD, something that industry consortium Canoe Venture could never do . . . .”) (quoting Tim Hanlon, CEO, Vertere Group).

<sup>272</sup> The transaction also will help support the development of interactive advertising, a technology which TWC has not previously prioritized due to the required investment. See Rosston/Topper Decl. ¶ 157. Bringing Comcast's efforts to develop interactive advertising technology to TWC systems will benefit both advertisers and consumers. See *id.*

<sup>273</sup> See Comcast Corp., Order, 27 FCC Rcd. 6983 (EB 2012) (“Comcast EB Consent Decree”). Comcast promptly resolved the FCC's concern. Comcast had made a good faith effort to comply with the condition, but the FCC questioned the adequacy of the initial implementation of Comcast's standalone broadband obligation. In



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Comcast otherwise consistently has met, and often exceeded, all of its commitments and obligations. And no serious objections have been filed – either on these reports or otherwise – regarding Comcast’s compliance track record. Comcast intends to build on that record to bring new benefits to customers in TWC markets. Indeed, even when no longer mandated or required, many of these conditions and commitments have become part of Comcast’s core business ethics and operations. Key benefits that will be extended to the acquired systems include:

**Open Internet Commitment.** As noted above, this transaction will extend the protections of the Open Internet rules that were rejected by the D.C. Circuit to millions of TWC customers, providing greater certainty for consumers and edge companies as the FCC considers a new legal framework.<sup>274</sup> Specifically, this Comcast commitment will extend the enforceable protections of the no-blocking and non-discrimination rules to millions of additional broadband customers.<sup>275</sup>

**Standalone Broadband Commitment.** Comcast is committed to offering consumers the option to procure their broadband service on a standalone basis. Indeed, this condition has become a core feature of Comcast’s broadband business, with standalone broadband services vigorously marketed and selling well.<sup>276</sup> Thus, customers will have faster speeds, as well as the

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resolving the issue, Comcast agreed to extend the commitment to offer standalone broadband service at a specific price point for one extra year. Other than this, there were two disputes involving the conditions, both relating to interpretative issues – one with Bloomberg, as to the parties’ different views of the neighborhooding condition, and one with Project Concord, as to the terms of its requested deal – neither of which resulted in the Commission finding or even suggesting noncompliance. See *Bloomberg v. Comcast Cable Commc’ns, LLC*, Memorandum Opinion and Order, 28 FCC Rcd. 14346 (2013); *Project Concord, Inc. v. NBCUniversal Media, LLC*, Order on Review, 27 FCC Rcd. 15109 (MB 2012) (“Project Concord Order on Review”) (Commission review pending). A copy of the Comcast-NBCUniversal conditions is attached as Exhibit 10.

<sup>274</sup> See supra Sections IV.B.1.b, V.C.1.b.

<sup>275</sup> See, e.g., Comcast-NBCUniversal Order ¶ 94. Further, this commitment is reinforced by Comcast’s additional agreement not to offer “specialized services” for its own or a third party’s content in TWC systems. *Id.* App. A § IV.E.

<sup>276</sup> As of January 21, 2014, the aggregate number of standalone broadband lines Comcast provisioned was [[ ]] million, more than [[ ]] percent of Comcast’s total residential broadband subscribers. Letter from Lynn R. Charytan, Senior Vice President, Legal Regulatory Affairs and Senior Deputy General Counsel, Comcast Corp., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 10-56 (Feb. 21, 2014).



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assured flexibility to mix and match any speed of broadband with the services of Comcast, another video provider, or no traditional video service at all. Although TWC offers a standalone broadband option today, this commitment ensures that this option will continue to be offered and actively marketed in the TWC acquired systems.<sup>277</sup>

**Program Access Commitment.** NBCUniversal will continue to make its programming available to MVPDs at fair market value and on non-discriminatory terms. Notably, NBCUniversal has been able to successfully reach commercial agreements with multiple MVPD partners over the past three years; not a single MVPD has submitted a program access dispute to arbitration. As a safeguard, the NBCUniversal Conditions provide MVPDs the right to seek arbitration with respect to NBCUniversal networks in specific circumstances.<sup>278</sup> While not necessitated by this transaction, which involves relatively little new content, this same commitment and approach will be extended to TWC’s controlled programming networks as appropriate; for example, TWC’s controlled RSNs will be subject to standalone arbitration.<sup>279</sup>

**Online Video Commitment.** NBCUniversal is committed to working with online video distributors (“OVDs”), and developing mutually advantageous distribution deals.<sup>280</sup> The NBCUniversal Condition allowing OVDs to demand, and, if necessary, arbitrate over access to NBCUniversal programming networks in certain circumstances will apply to TWC’s controlled programming assets as appropriate – though, again, nothing in this transaction creates any new issues in this regard. In addition, TWC’s carriage agreements, to the extent they remain in place

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<sup>277</sup> This commitment has subsequently been reinforced – and, with respect to training, expanded. See Comcast EB Consent Decree.

<sup>278</sup> See Comcast-NBCUniversal Order, App. A § II.

<sup>279</sup> Id. App. A § VII; see also discussion *infra* Section V.C.3.

<sup>280</sup> For example, NBCUniversal has entered into or renewed agreements with several OVDs, including, among others, Amazon, Drama Fever, Hoopa, Netflix, and Sensio. Third Annual Compliance Report, at 3-4; see also discussion *infra* Section V.D.2.

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following the transaction, would be subject to prohibitions against practices that unduly influence or unfairly limit the provision of the acquired programming to OVDs.<sup>281</sup>

**Broadband Adoption Commitment.** This condition will have expired prior to the consummation of this transaction. However, as discussed above, Comcast has already improved and committed to extend its very successful Internet Essentials program for broadband adoption, and will expand it to TWC territories, enhancing opportunities for low-income families across the combined company's footprint.<sup>282</sup>

**Broadcast Commitment.** Comcast is proud of its close relationships with affiliated and unaffiliated local broadcast stations, and the commitments captured by letter agreements with both the NBC Television Affiliates Association and the ABC/CBS/Fox Television Affiliates Associations.<sup>283</sup> The concerns underlying many of those provisions have proved unfounded, as Comcast enjoys positive relationships on all sides in retransmission consent and affiliation agreement negotiations.<sup>284</sup> Nevertheless, these commitments will continue to apply and will extend to the TWC markets. Specifically, Comcast maintains separation between its cable and broadcast businesses with respect to NBCUniversal's negotiation of retransmission consent agreements with MVPDs, NBCUniversal's negotiation of affiliation agreements with local broadcast stations, and Comcast's negotiations of retransmission consent agreements with broadcast stations. Moreover, Comcast Cable has committed not to import distant NBC

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281 See Comcast-NBCUniversal Order, App. A § IV.A, G.

282 See *id.* App. A § XVI; see also *supra* Section IV.B.2.d.

283 See Comcast-NBCUniversal Order, App. F.

284 Indeed, over the past three years, Comcast has not been party to any retransmission consent disputes resulting in a blackout with respect to its cable or broadcast properties.

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broadcast network signals into an affiliate's market where retransmission consent negotiations have failed.

Other Programming Commitments. Comcast has dedicated considerable resources to expanding access to local programming and children's VOD content, and to empowering parents. And Comcast will approach the acquired systems with the same goals, though some of these may require more time and technological development to incorporate fully in TWC systems. These include:

- Making available broadcast content in the acquired TWC systems at no additional charge on Comcast's VOD.
  - Expanding VOD programming choices that appeal to children and families.
  - Providing improved on-screen program ratings icons.
- Restricting the use of "Interactive Advertising" in programming produced primarily for children.

Non-Commercial Educational ("NCE") Station Carriage Commitment. Comcast is obligated to continue carrying qualified NCE and local NCE stations that had must-carry rights as of December 31, 2010 and relinquish their broadcast spectrum. NCE stations in the acquired systems will enjoy this protection as well,<sup>285</sup> affording such broadcasters the opportunity to both participate in the FCC's upcoming incentive auction and to continue to deliver important local programming to their local communities.

Diversity Commitments. The transaction will promote significant diversity interests in the TWC markets, because Comcast will extend its best-in-class diversity program to the acquired systems and networks and will incorporate and build upon those TWC programs that would enhance Comcast's own diversity practices.

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285 See Comcast-NBCUniversal Order, App. A § XV.

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Diversity is part of Comcast's corporate DNA. As detailed in Exhibit 11, Comcast is recognized nationally for its commitment to promoting diversity.<sup>286</sup> For the past several years, its diversity program has been enhanced by a variety of commitments memorialized in three Memoranda of Understanding ("MOUs") with diverse leadership organizations in 2010 in connection with the NBCUniversal transaction.<sup>287</sup> Those voluntary undertakings span five key focus areas across all aspects of the company's business: (1) governance, (2) workforce recruitment and retention, (3) procurement, (4) programming, and (5) philanthropy and community investment. Comcast's progress and accomplishments in its diversity and inclusion programs are detailed in the company's annual Corporate Social Responsibility Report.<sup>288</sup> The first report after consummation of the transaction will include TWC's operations.

Since approval of the NBCUniversal transaction, Comcast has made demonstrable progress toward these goals, in many cases exceeding its commitments and expanding upon them with new or modified initiatives. That focus and progress will continue with respect to the expanded, post-transaction company, bringing concrete benefits to the TWC markets.

- a) Governance. Comcast's Board of Directors is one-third diverse, including representation of people of color and women. In addition, Comcast and NBCUniversal each have an executive Internal Diversity Council to provide oversight and guidance on development and implementation of diversity and inclusion strategies across the company. These executive councils meet separately and jointly; further, several business units within the company also have diversity councils or committees participating directly in diversity initiatives. In addition, for the past three years, Comcast has received advice and guidance

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<sup>286</sup> See also Eric Lipton, Comcast's Web of Lobbying and Philanthropy, N.Y. Times, Feb. 20, 2014, available at [http://www.nytimes.com/2014/02/21/business/media/comcasts-web-of-lobbying-and-philanthropy.html?\\_r=0](http://www.nytimes.com/2014/02/21/business/media/comcasts-web-of-lobbying-and-philanthropy.html?_r=0); Awards & Recognitions, Comcast Corp., <http://corporate.comcast.com/news-information/awards-and-recognition> (last visited Apr. 3, 2014) (listing awards, recognitions, and honors received by Comcast and its leadership).

<sup>287</sup> See Comcast-NBCUniversal Order, App. G.

<sup>288</sup> 2012 Corporate Social Responsibility Report, Comcast Corp., [http://corporate.comcast.com/images/Comcast\\_NBCUniversal\\_CSR\\_2012.pdf](http://corporate.comcast.com/images/Comcast_NBCUniversal_CSR_2012.pdf) ("2012 Corporate Social Responsibility Report").



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from the Joint Diversity Advisory Council (“Joint Council”), a unique external advisory group consisting of more than 40 nationally recognized advisors on diversity from business, community-based organizations, and the media/entertainment industry, representing a broad spectrum of diverse constituents and perspectives. The company ensures transparency and measurement of progress through rigorous benchmarking and reporting processes, including regular reports to the Board, Internal Diversity Councils, and external Joint Council.

Within 120 days of the close of the transaction, Comcast will develop a new master strategic plan that will set forth the vision and goals for the combined company’s (including TWC’s) diversity programs, similar to the plan adopted shortly after the NBCUniversal transaction closed. The new plan, like the existing plan, will be formulated with the advice of the Joint Council. This transaction will afford Comcast the opportunity to ensure that the best and most effective approaches to governance for diversity and inclusion are deployed throughout the combined company by extending Board, executive Internal Diversity Council, and Joint Council review to TWC systems.

- b) **Workforce Recruitment and Retention.** Comcast approaches workforce diversity issues with a broad range of initiatives designed to increase diversity at all levels of the workforce, with a particular emphasis on hiring, promoting, and retaining diverse leaders. Since the closing of the NBCUniversal transaction, the numbers of people of color and women have increased among the Comcast’s executive leadership, vice president and above (“VP+”), and director levels, and in the full-time US workforce overall. Of all the VP+ positions added to the workforce since year-end 2010 and year-end 2013, 40 percent were filled by people of color and 57 percent by women. More specifically, the number of people of color at the VP+ level increased by 111 (or 32 percent), which drove a corresponding increase in their proportional representation to 18 percent of the company’s total VP+ population at year-end 2013. During the same time, the number of women at the company’s VP+ level increased by 157 (or 21 percent), which also drove an increase in their proportional representation – to 36 percent of the VP+ population.

This has been accomplished through the company’s multifaceted approach to recruitment, leadership training programs, and innovative engagement initiatives, all aimed at attracting and developing a diverse talent pipeline. In terms of senior leadership, the company requires at least one candidate of color on all hiring slates for positions at and above VP levels. And, to ensure accountability, progress on diversity initiatives is a component of Comcast’s bonus determinations at the executive level.

Comcast is prepared to extend its workforce (and other) diversity commitments to TWC properties. As part of developing the TWC master strategic plan for the company’s workforce, noted above, Comcast would, for example:

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- Analyze TWC’s talent acquisition, development, and promotion, employee engagement practices and programs, and the overall workforce diversity metrics, and identify potential areas for action.
- Develop a plan to build on TWC’s positive workforce initiatives and integrate them into Comcast’s approach to practices and programs.
  - Identify specific initiatives and aspirational goals, with quantifiable steps, to increase diversity in the leadership ranks and overall employee base.
- o These proven methods for creating a culture of inclusion and driving workforce diversity have been recognized time and again. While a complete list of awards is attached as Exhibit 11, it bears noting that Comcast tied for first among Women in Cable Telecommunications’ 2013 Best Operators for Women in Cable (NBCUniversal was the top programmer in the same survey); has been named among the “Top 50 Companies for Diversity” by DiversityInc magazine; and has received the New York Urban League’s 2013 “Champions of Diversity” Award; ranked third in the 2013 LATINA Style 50 Report; and earned a 100% score on the Human Rights Campaign’s 2014 Corporate Equality Index.
  - o In addition, Comcast is a leader in supporting and honoring the serving military and in hiring the nation’s veterans. Over the last 12 months, Comcast has hired over 1,400 veterans company-wide and has supported their career development through our VetNet employee resource group. Comcast has been recognized as a 2012 G.I. Jobs Top 100 Military Friendly Employer and a 2013 US Veterans Magazine Top 100 Best of the Best Veteran Friendly company, and is a recipient of the 2012 U.S. Chamber of Commerce Foundation’s Lee Anderson Award for its commitment to veteran employment and support as a key partner in their national “Hiring our Heroes” initiative.

The TWC systems, employees, and customers will benefit significantly from the extension of Comcast’s comprehensive diversity program.

- c) Procurement. Comcast’s vendors will have more opportunity to do business with the combined company and increase prime vendors (i.e., Tier I) spend. In addition, the combined company will be able to expand opportunity for diverse subcontractors (i.e., Tier II). In the NBCUniversal transaction, Comcast committed to expand its supplier diversity program to increase the amount spent with Tier I and to expand its Tier II program. The company has demonstrated the seriousness of its resolve to create more opportunities for diverse suppliers, increasing its total Tier I spend with diverse suppliers to over \$1.3 billion in 2013 alone – a 44 percent increase since the year before the NBCUniversal transaction.

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Over the course of three years, Comcast has spent almost \$3.2 billion with diverse Tier I vendors. Since Comcast formally launched its Tier II program in 2012 and over the course of the two years ending 2013, prime suppliers have reported over \$325 million in diverse Tier II subcontracting, including \$186 million in 2013 alone. Comcast's supplier diversity program has been recognized by Black EOE Journal; Hispanic Network Magazine; Professional Women's Magazine; and U.S. Veterans Magazine.

TWC has a supplier diversity program as well, and Comcast will combine the best aspects of both companies' programs to drive increased opportunities for diverse vendors.

d) Programming. Since the NBCUniversal transaction, Comcast has met its commitment to expand minority-focused programming, increasing the amount, quality, and diversity of national and local programming for its customers across its platforms. For example, in the last three years, Comcast has launched four independent networks with Hispanic American or African American ownership or management. In addition, Comcast has expanded the distribution of diverse African American, Asian American and Hispanic content:

- Comcast expanded distribution of The Africa Channel in the Detroit, Chicago, and Washington, D.C. markets. Comcast also launched The Africa Channel in its Northern Santa Barbara County, Savannah, Charleston, and South Florida markets, growing the network's audience by more than 2 million homes.
- Comcast expanded carriage of TV One on its Xfinity TV lineup, making it available to over 600,000 additional customers in the Chicago and Miami markets.
- Comcast announced a significant new carriage agreement with Mnet, the only 24/7 English-language nationwide television network in the U.S. targeting Asian Americans and fans of Asian pop culture, and subsequently extended carriage of Mnet to millions of additional Comcast subscribers in the San Francisco, Chicago, Sacramento, Boston, Washington, D.C., and Philadelphia DMAs in 2012. Comcast also launched MYX TV, a channel made for and by Asian Americans, in Seattle and western Washington.
- Comcast extended distribution of seven Hispanic programming services (Azteca America, Galavisión, HITN, LATV, nuvoTV (formerly SÍTV), Telefutura, and Univision) by more than 14 million subscribers. With this accomplishment, Comcast exceeded by more than 40% its commitment to expand carriage of three Hispanic networks by 10 million subscribers.

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- Comcast fulfilled its commitment to launch a package of 40 to 60 Spanish-language channels in all major Hispanic markets, including Northern California, Houston, South Florida, Chicago, Boston, Philadelphia, Washington, D.C., Denver, Salt Lake City, and Atlanta.

Comcast also has expanded the quality and quantity of diverse programming available through its VOD and online platforms – increasing the number of diverse VOD hours by more than 270 percent and the number of diverse online hours by nearly 170 percent over the past three years. These results are driven by the launch of new diverse-oriented VOD services, including Black Cinema On Demand, Hispanic Cinema On Demand, and Cinema Asian America, and the launch of first-of-their-kind, online destinations for entertainment and news for diverse audiences, such as Celebrate Black TV, Xfinity Latino, Xfinity Asia, and Xfinity TV LGBT.

With this transaction, Comcast will commit to use its VOD and Online platforms to feature Telemundo programming and increase the number of Telemundo and mun2 VOD choices, as well as other diverse VOD content, available to customers in the acquired TWC systems, as soon as TWC's VOD content and delivery platforms can be upgraded.

NBCUniversal has also undertaken initiatives intended to increase news, information, and entertainment choices for diverse viewers. The new NBCNews.com features a new microsite focused on original reporting and analysis relevant to the Latino community ([www.nbcnews.com/news/latino](http://www.nbcnews.com/news/latino)), and will soon launch an additional microsite dedicated to serving the Asian Pacific Islander community. By integrating these microsites into the main site, that coverage will benefit from greater exposure to the broader NBCNews.com audience and the more significant promotion of the NBCNews.com site.

NBCUniversal has long been a leader in offering diversity development programs to improve the interest and presence of diverse writers, directors, journalists, and on-screen personalities. Under Comcast's leadership, NBCUniversal has added even more signature programs. Highlights include:

- Universal Pictures Emerging Writers Fellowship is designed to identify and cultivate new and unique voices with a passion for storytelling in the context of film. Emerging writers who are chosen to participate in the program will work within the studio to hone their skills and gain access and exposure to Universal executives, producers, and other key industry professionals.
- The Writers on the Verge program focuses on grooming diverse writers not just for NBCUniversal but for the entire television industry. More than 50% of Writers on the Verge alumni are currently staffed on television shows across the industry landscape (alumni write for NBC

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shows such as “The Blacklist”, “Dracula”, “Chicago Fire”, and “Chicago P.D.” Alumni write for USA Network series “Burn Notice & Suits” and for the Universal Television production “Brooklyn Nine Nine.”

- The Diverse Staff Writer Initiative gives writers from diverse backgrounds an entrée into the writers’ room. The program encompasses NBC’s late-night programs, in addition to prime-time scripted programs from NBC, USA and Syfy. Participants are selected and hired by the showrunners/producers of each show, with the guidance of the network and studios. The program has launched the careers of many talented writers in the past 13 years, including Mindy Kaling (“The Office,” “The Mindy Project”) and Donald Glover (writer on “30 Rock,” and later talent on “Community”).
- The Late Night Writers Workshop is designed for up-and-coming sketch and comedy writers to learn about NBCUniversal’s late night line-up, gain insight into the dynamics of a late night writers’ room, and provide insights on securing a staff writer position.
- The Casting Apprentice Program is a rotational program designed for individuals with diverse backgrounds who aspire to join a casting office.
- The Director Fellowship Program gives well-established directors from the worlds of music video, commercials, and theater and gives them a chance to shadow directors of episodic television, and learn the craft. In the last two years the program has seen three directors had their first episodic directing assignments on “Parenthood,” “Grimm,” and “Community” through the program.
- The NBC News Associates Program is dedicated to identifying outstanding aspiring journalists. In 2011, this program was extended to the newsrooms of NBC Owned Television Stations and CNBC. In keeping with NBCUniversal’s strong commitment to develop a diverse editorial staff across NBC News assets, the News Associates program is designed to attract candidates from diverse racial, ethnic, economic and geographical backgrounds, as well as candidates with disabilities.
- The Reporter Training Program is aimed at developing talented young on-air journalists from diverse backgrounds. Participants, who are selected annually, must hold a bachelor’s degree in Journalism, Communications, or a related field and have a minimum of one to two years of experience in the news room or on-air reporting television news.
- The News Summer Fellowship Program gives paid internships for nominees from the National Association of Black Journalists (NABJ), National Association of Hispanic Journalists (NAHJ), and Asian

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American Journalists Association (AAJA). Participants are college sophomores or above who are members of NABJ, NAHJ, or AAJA.

NBCUniversal has been recognized for its exemplary commitment to diverse programming. For example, MSNBC received a Diversity and Inclusion Award in the Media category; USA Network was honored with the American Association of People with Disabilities Image Award for its work to promote equal rights and opportunities for people with disabilities; on the National Latino Media Council 2011 Network Diversity Report Card, NBCUniversal earned an A+ for “Actors: On-Air Primetime Reality Shows” and an A in the “Entertainment Creative Executives” category; and the 25th Annual GLADD Media Awards included 16 NBCUniversal nominees.

- e) Philanthropy and Community Investment. In 2010, Comcast and NBCUniversal committed to increase aggregate cash support to minority-led and minority-serving (“MLMS”) organizations by ten percent per year in 2011, 2012, and 2013. The company significantly exceeded this commitment, increasing its cash spending to diverse communities MLMS organizations by more than 100 percent over the three-year period. Comcast achieved this unprecedented level of support for MLMS institutions, in part, through the extensive activities and programs of the Comcast Foundation, led by the corporate team, but extended throughout Comcast’s footprint by the cable divisions and NBCUniversal’s MLMS giving. This included extensive outreach to and work with the company’s community partners, as well as the important work of its signature programs. In addition to Internet Essentials, discussed above, some other examples of our deep community roots include: 289
- Comcast Cares Day: This is the largest single-day corporate volunteer effort in the nation. In 2013, more than 85,000 volunteers participated in over 750 project sites, contributing their time and energy to clean up parks, make over schools, and landscape playgrounds.
  - Comcast Leaders and Achievers: Now in its 13th year, the Comcast Leaders and Achievers® Scholarship Program recognizes high school seniors for their community service, academic achievement and leadership skills. Funded through the Comcast Foundation, the program recognizes high school seniors from Comcast communities for their commitment to community service, academics and demonstrated leadership. To acknowledge these accomplishments, Leaders and Achievers are awarded one-time scholarships, with a base award of \$1,000. Since 2001, Comcast has awarded close to \$20 million in scholarships to nearly 20,000 students. More than 950 scholarships awarded last year benefitted students from diverse backgrounds.

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- **Digital Connectors:** The Comcast Digital Connectors program trains youth from primarily diverse, low-income backgrounds in Internet and computer skills. Teens meet weekly after school, have the option to earn a Cisco IT Essentials certification of completion, and receive a complimentary laptop upon graduation from the program. Comcast Digital Connectors is also a community service program, as participants volunteer at senior centers, churches, local schools and other community organizations, spreading digital literacy in their communities. Since the program began, more than 2,000 Digital Connectors have participated, volunteering more than 100,000 hours to bridge the digital divide in their communities. Through training and service, Comcast Digital Connectors is preparing today's youth for the jobs of tomorrow.
- **United Way:** Each year, Comcast and NBCUniversal employees rally around our communities by supporting United Way. Through an annual employee giving campaign, company employees pledged nearly \$6.4 million to United Way during the 2013 campaign. Not only did the company employees break the company record for dollars pledged, with year-over-year, double-digit growth, the campaign also had record-breaking employee participation. Combined with matching Comcast Foundation grants, the campaign will provide almost \$8 million next year to local United Ways and affiliate organizations across the country – taking us beyond \$50 million in total historic support to United Way.
- The company supported more than 50 teams around the country competing in the FIRST Robotics Competition and introduced the Comcast and NBCUniversal Media and Technology Innovation Award.
- The NBCUniversal Foundation partnered with our NBC Owned Television Stations division last year to launch 21st Century Solutions, a competitive grant program that supports innovative, high-impact social entrepreneurship projects. The company awards grants to nonprofit organizations in seven categories: arts and media, civic engagement, community development, education, environment, jobs and economic empowerment, and technology. The competition took place in ten major U.S. cities, with one winning organization and two runners-up in each market, for a total of \$1.2 million shared among 30 organizations. Winners included a micro-savings initiative aimed at helping low-income working families develop strong financial habits and an employment program that helps expand work opportunities for disabled youth.

For the first time in 2013, The Civic 50 has recognized Comcast's community investment achievements. In addition, Comcast has received awards from the United States Hispanic Chamber of Commerce, United Way Worldwide, and the Congressional Black Caucus Foundation.

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Moreover, in 2011, Comcast Ventures established a \$20 million venture capital “Catalyst Fund” for investments in early-stage ventures led by diverse entrepreneurs with innovative technology ideas and solutions that fit within its investment focus. The Fund’s goal is to create the most diverse and valuable early stage portfolio in the venture industry.

The Catalyst Fund’s first investment was in the startup accelerator DreamIt Ventures, which operates DreamIt Access, a concentrated effort to increase the number of high-value, minority-led tech startups. During this three-month program, participating startup companies receive seed funding and access to DreamIt Ventures’ benefits and services, including business talent, legal and accounting services, mentoring, office space, guidance from leading business visionaries, and contacts to reach the next level of development. In addition, DreamIt Access offers mentors, special events, and advisors with a particular interest in increasing the number of successful minority-led startups.

Through its DreamIt Access partnership, the Catalyst Fund has sponsored 20 minority-led startups since 2011, sixteen of which are still operating. The majority of these companies are focused on web and mobile technologies. In January 2014, Comcast Ventures announced its commitment to support the DreamIt Access track for two more years, with the ability to support up to 20 minority-led companies over the course of four cycles.<sup>290</sup>–

In addition, the Catalyst Fund has made direct investments in seven minority-led startups:

- ElectNext, a political data analysis firm (Philadelphia Fall 2011 DreamIt participant) (August 2012);
- Quad Learning, an online two-year honors program for community and junior college students to enhance their college transfer options (January 2013);
- Reactor, Inc., a speech enabled news assistant for mobile devices firm (New York Summer 2012 DreamIt participant) (March 2013);
  - Lovely, an online wedding discovery and inspiration site (May 2013);
- Viridis Learning, an educational and technology company combining workforce education and human capital solutions for the middle-class workforce (June 2013);

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<sup>290</sup> See Press Release, DreamIt Ventures, DreamIt Ventures & Comcast Ventures Sign Two-Year Partnership to Support Minority-Led Startups in New York & Philadelphia (Jan. 20, 2014), <http://www.dreamitventures.com/nyc2014announcement/>.



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- Maker’s Row, an online marketplace for connecting designers with American-based factories (July 2013); and
- Mercaris, a market data service and online trading platform for organic, non-GMO, and certified agricultural commodities (October 2013).

To ensure that both companies’ community partners enjoy the full benefit of the transaction, Comcast’s community-focused ethos and programs will extend to the TWC markets and will honor and build upon TWC’s existing partnerships and programs.<sup>291</sup>

2. The Transaction Will Generate Significant Public Interest Benefits for People with Disabilities.

Both Comcast and TWC have been deeply committed to providing accessible solutions to customers with disabilities. TWC currently supports many accessibility services, including, among other things, closed captioning on its TWC TV apps on a wide range of device platforms,<sup>292</sup> voice-to-text features for its phone services,<sup>293</sup> and large-button remote controls.<sup>294</sup> And, as discussed below, Comcast has undertaken a host of technology and other initiatives over the past several years that have made it an industry leader in this area. Following the transaction, Comcast will be able to bring its leadership to bear, building upon TWC’s strong foundation to deploy new assistive technologies and support to TWC customers. As TWC systems are