April 11, 2016

Chairman Tom Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O'Rielly
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

RE: Docket No. 16-42, Expanding Consumers' Video Navigation Choices; Docket No. 97-80, Commercial Availability of Navigation Devices

Dear Chairman and Commissioners

We are submitting a research report we published today which addresses the issues from your recent Video Navigation docket. We disagree that it is necessary for the FCC to pursue additional regulation in this regard. We make this point in detail discussing each of our respective research segments in our note.

In summary, we believe it would be a mistake to introduce additional regulatory burden on a sector that is largely solving these through technology migrations that go beyond Set top Boxes Establishing a standard for CPE risks stifling innovation and bringing unintended consequences in the requisite network changes. A standard based platform could dissuade operators from introducing new features because of a lack of competitive advantage, and operators could face a costly burden of replacing existing equipment with new standardized boxes. The industry has already begun a market driven evolution that will result in a meaningful change in CPE over the next several years, in our view. The industry transition to IP distribution, enabled by legacy and "over-the-top" video service providers will likely radically change how consumers pay for CPE in the future. To regulate what is likely a declining and transitioning market/business model today, the FCC runs the risk impacting the ability for both existing and new players in the video distribution industry to provide innovative pricing and technology. Lastly, we suggest there may be a compromise solution to allow customers to purchase CPE directly from the carriers.

We respectfully submit our research note dated April 11, 2016 *entitled "FCC Set Top Box Proposal Commentary; Not the BYOB Party the Commission Envisions"* with all notifications and disclosures as part for the comment process for docket No. 16-42. We want to thank the Chairman and Commissioners for giving our commentary consideration as they move forward with the current proposal.

Sincerely,

Frank Louthan | Simon Leopold | Tavis McCourt

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Industry Brief

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Technology & Communications: Industry Tidbit

TMT: FCC Set Top Box Proposal Commentary: Not the BYOB Party the Commission Envisions

- We wish to provide comment on the Navigation Device NPRM currently underway at the FCC. This NPRM has the potential to negatively impact several sectors within the Raymond James TMT research group, and we believe it would be a mistake to introduce this additional regulatory burden on a sector that is largely solving the problems that the FCC is attempting to address through technology migrations, software, and other individual technology solutions that go beyond set top boxes. We make several assertions:

- Establishing a standard for customer premises equipment presents a risk of stifling innovation and unintended consequences. We cite the past example of CableCARDs complicating the implementation of Switched Digital Video, a technology for cost effectively adding channels. A standard based platform could dissuade operators from introducing new differentiating features because of a lack of competitive advantage. Operators could face a costly burden of replacing existing equipment with new standardized boxes.

- Current technology does not support a universal Customer Premises Equipment (CPE) or Set Top Boxes (STB). The network investment required for a "Bring Your Own Box (BYOB)" environment would increase cost burdens on carriers and ultimately consumers, resulting in less innovation and consumer choice, in our view.

- Current operator networks lack sufficient capacity to distribute all video as Internet traffic today. When a few homes in a neighborhood use consumer IP video, the experience works well, but if the majority tries, the networks will not have sufficient capacity. The vast majority of modern pay-TV networks distribute most video using broadcast technology that sends the same stream of traffic to each home. To send all traffic via IP could require a unique stream to each household; although the operator may send only a subset of channels at a time, the total network capacity need can be 100x higher, adding to network costs and lowering investment returns.

- Options exist for customers to avoid renting CPE, and are naturally increasing through private industry initiatives and non-related third party hardware and software. An increasing percentage of customers are replacing traditional cable services with media streaming services that do not require a traditional set-top-box, and for those staying with their cable service provider, there are options to purchase some CPE at retail such as modems, gateways and routers rather than renting through one's cable service provider. We believe the rate of adoption of these technologies is faster than the FCC's STB proposal could become a reality.

- We believe the industry, operators, equipment suppliers, and content owners have already begun a market-driven evolution that will ultimately result in a meaningful change in Customer Premise Equipment. The industry transition to Internet-based video distribution, enabled by both legacy and new "over-the-top" video service providers will likely radically change how consumers pay for CPE in the future. To regulate what is likely a declining and transitioning market/business model today, the FCC runs the risk of impacting the ability for both existing and new players in the video distribution industry to provide innovative pricing and technology into this market in the future.

- We believe there is an opportunity to compromise. We would look to Shaw Communications in Canada that provides its customers with the ability to rent or buy their STB. This avoids the risks associated with creating a standard single STB for all networks, while giving the customer the option of how to engage with their service provider. We believe this is a better way to offer consumers the option of avoiding the STB rental fees, while leaving the networks fully functional for future innovation including apps and other non-STB access methods that we believe are on a firm path to replace current STB regimen, while avoiding disruption for consumers that want to keep their current STB set up.

Please read domestic and foreign disclosure/risk information beginning on page 7 and Analyst Certification on page 7.

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The FCC has recently requested comments on its Notice of Proposed Rulemaking (NPRM) titled, "Expanding Consumers' Video Navigation Choices; Commercial Availability of Navigation Devices," which is focused on changing the current set-top-box (STB) regimen in the U.S. We are submitting this research note from our TMT (Telecom, Media, & Technology) research team to the FCC as part of the public comment process for the NPRM. **The NPRM supports the requirement of cable and pay-TV operators to adapt open source platforms that would allow consumers to attach any device or after-market box to their cable plan and receive content.** The current industry norm is generally a closed platform developed by each pay-TV provider separately that requires customers to rent a box from their pay-TV provider that is compatible with that provider's network protocol, channel line-up, video guide, and other features. **Several of the stocks under our coverage that could be affected by this initiative include operators such as AT&T, Charter, Comcast, Time Warner Cable and Verizon as well as equipment suppliers ARRIS, Cisco and Netgear along with Internet video providers such as Apple.**

We believe this approach could stifle innovation, add costs to consumers, add costs to the network providers, reduce carrier competition, and ultimately limit choice. While the concept of consumers having choice in their STB is a noble one, we believe technology evolutions are making these devices obsolete already and the additional regulation will not benefit customers. Today, operators implement a variety of technologies to deliver video, so the concept of a universal STB is impractical without significant and costly changes to the delivery networks. This is not to suggest networks will not change over time because the evolution is already underway. Several well-known examples of network upgrades to advanced IP systems include Comcast's X1 initiative, AT&T's Genie platform, and Time Warner Cable's IPTV pilot. The cable TV industry defined its CCAP (Converged Cable Access Platform) architecture as a road map for this evolution.

We believe the CableCARD initiative illustrates a precedent for unintended consequences. We believe CableCARDs were an obstacle to implementing Switched Digital Video (SDV), a technology that enabled operators to deliver more video channels without rebuilding their networks. A poorly implemented specification could represent a hurdle. We believe operators implement new features in their networks with some frequency, and the potential for placing a standard in the process could both delay implementation and perhaps reduce competition because operators would lose the ability to create and implement differentiated services.

The industry spent $5.4 billion on STBs in 2015 according to IHS/Infonetics. Comcast, likely the largest buyer, reported Customer Premises (CPE) capital expenditures (capex) of $3.4 billion in 2015; this represented 48% of its cable TV capex. This is already a significant capital expenditure for the industry just to maintain the current status quo, let alone if it was required to change its platform to a new, ill-defined and undeveloped open source platform. Future investment could also be slowed as each carrier would need the currently non-existent standards body to approve network upgrades and enhancements. Lastly, we note that all apps that have been or will be developed by carriers for the wide variety of access devices would have to be altered to meet the standard and be made available on the new open source hardware, further adding to the conversion costs as well as ongoing upgrades and future innovation.

The impact of this regulation, if adopted, is expected to be higher overall costs, less service, and potential limitations on content and innovation. Additionally, we do not believe the ownership of a customer STB is in high demand. Just as consumers buy drill bits because they want the holes they make, true STB demand is for the features and functionality the devices provide and not the box itself, not to mention the fact that many of these features are quickly migrating to apps on tablets, smartphones, or streaming devices (Roku, Amazon Fire, Google Chromecast, etc.). Also, STBs are more complex pieces of equipment. The complexity of owning and personally operating a relatively expensive piece of equipment requiring proper 2-way connectivity to the network is a proposition we do not believe many consumers have the appetite for. Consider the problems that result in the average service call for a box that is not working, and then imagine the customer is responsible to troubleshoot the issue, then fix the problem themselves. **To further support our idea that consumer demand is miniscule, we note that our research suggests the average personal modem ownership (far easier technology to understand and operate, with a longer operating life) is well under 20% of total subscribers. We do not believe the true consumer demand for STBs is much above this, and may be far below it.**

Content contracts are likely to be a significant impediment to the FCC's plan. We find it difficult to believe that the content industry will allow the carefully orchestrated channel lines ups (which determine advertising rates they can charge, the costs paid by the pay-TV operators to distribute the content, and other factors) to be thrown away, nor will they consent to just any provider manipulating the content presentation. In effect, the NPRM envisions a world where the content is given up without a contract. The FCC proposal would do just that, while allowing the generic STB manufacturer access to customer data that could be sold or potentially violate privacy rules. The FCC proposal also gives serious concern to the content providers about the quality of the video being provided. Is it truly HD? Will it be displayed to consumers as promised by the pay-TV provider once the STB platform has control? These questions are the subject of significant debate with the pay-TV providers under the traditional negotiations and also factor into the cost of programming, but they are unanswered with the FCC's proposal, in our view, and we believe they pose significant challenges to the outcome. This will become more important as 4K TV begins to emerge and picture quality and display integrity become more important.

On June 16, 2015, we published a report on the evolution of video delivery titled, "Field of Streams: The Evolution of Video to IP and the Impact to Networking" that offered our perspectives on a multi-year evolution of video services and networks. One of the key points addressed in the report is that as consumers and operators continue to embrace the world of digital IP video, the traditional "set-top-boxes" that we are currently familiar with has already begun to evolve.

The migration of subscription services and adoption of all IP distribution for broadcast TV is many years away. When examining IP traffic growth, one generally needs to look no further than one's own Internet usage to realize that the largest and fastest growing component of broadband traffic is IP video. During peak usage times, IP video is 67% of all Internet traffic, and this is expected to grow to 80% in 2019. Our report examined some of the key trends related to video delivery and consumption, and areas of networking equipment it touches over the next several years. Higher quality video and an increasing shift to on-demand will pressure networks; however, the number of pay-TV subscribers is now higher than it was in 2008, and the total number of subscribers in 2014 was slightly higher than it was in 2013, according to the latest release from third-party

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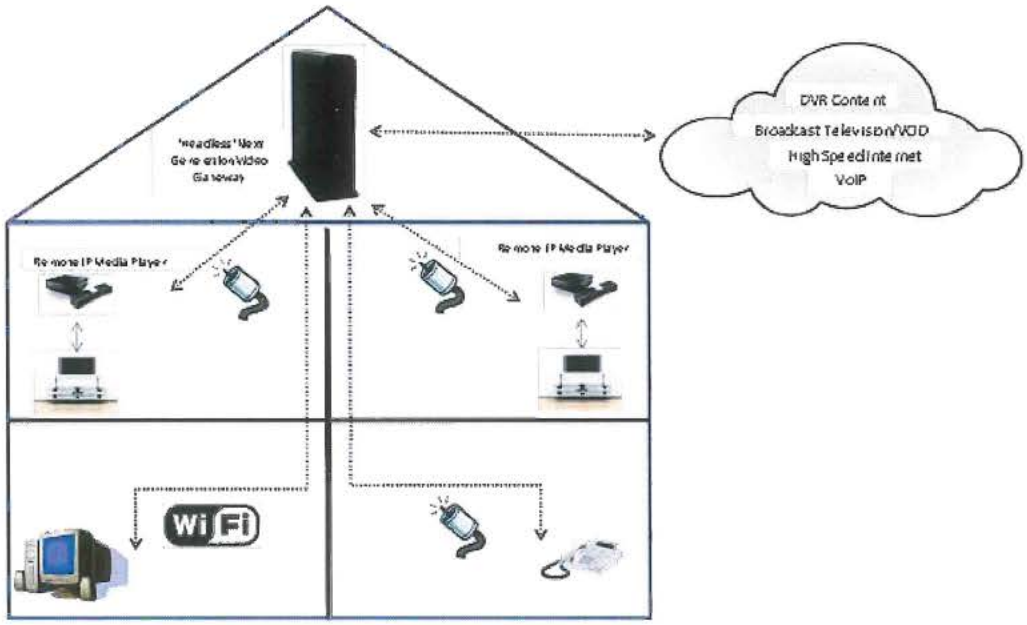
market research provider Infonetics. Furthermore, subscribers still watch over five hours of broadcast video per day, largely unchanged since 2012. Most households in the U.S. have an option to select video service from a cable operator, a telco, satellite, or via the Internet. It is possible for a residential consumer to purchase a high speed data service and enjoy over-the-top video and when coupled with an antenna to obtain broadcast content, all without renting an STB, yet most consumers opt to subscribe to a service that includes rented STBs.

Market research firm comScore published its "Total Video Report" whitepaper providing a granular look at viewing habits by age. One of the most revealing data points is that millennials (viewers age 18-34) are 77% more likely than the average viewer to be a "cord never," who has never subscribed to pay-TV, and 67% more likely than the average to be a "cord cutter," who has subscribed to pay-TV before in the past but no longer does. We believe this argues the market is going away form STBs on its own. While this generational change may not be as fast as the FCC wants, it is a significant deviation, and implies the vast majority of current STB renters simply have a different set of buying habits (including a preference for both paying for TV and renting equipment) that they are unlikely to change.

Millennials are also the most likely to deviate from traditional TV viewing habits. As an example, only 55% of millennials responded that they typically watch original TV series on "traditional TV only," compared to 70% of the respondents in the 35-54 age group, and 83% of the respondents in the 55+ age group. Not surprisingly, millennials are also the most likely to use next generation devices to watch video, with 49% of the millennial group noting that they had watched original TV series on a tablet, compared to 29% of the respondents in the 35-54 age group and 14% of respondents in the 55+ age group.

Rather than employing a separate digital STB for each television in the household, we are more likely to see the adoption of a video gateway/media player model. Video gateway deployments can take on several different forms, but at the basic level, a video gateway typically includes several QAM tuners, which allow cable operators to continue delivering video through legacy digital RF QAM transmissions. They also include an integrated DOCSIS modem and wireless router to allow them to function as a broadband gateway for high-speed Internet service and to pave the way for the eventual delivery of all video over IP. In some early concept model specifications also integrated an EMTA VoIP modem and hard drive as well. A next generation video gateway is also typically "headless" meaning that the gateway itself does not connect directly to a TV (doesn't directly render video). Rather, it sits in a closet or garage, and delivers TV streams over a home's existing co-axial lines or over Wi-Fi to smaller, low cost IP media players, which render the video and connects directly to the television (see figure below). CPE deployments such as this allow customers to receive the maximum benefits of next-generation IP services, but results in a more advanced setup than simply plugging a cable box to the wall.

We could foresee a number of technical hurdles in attempting to standardize such deployments across the board, given the challenges that something as simple as cable-cards faced previously. We find it difficult to see customers embracing the idea of purchasing several hundred dollars' worth of equipment, and potentially setting aside a weekend or two to wade through the process of setting it all up, especially when ongoing maintenance, replacement, and upgrades are on them as well.



Source: Raymond James research.

For companies such as Apple, Roku, Amazon, and others that are looking to partner with content providers to disrupt the traditional cable TV service, our view is that disallowing the renting of STBs is likely irrelevant, and could impede these companies' ability to develop new business models in the future. For instance, would this stop Apple, Amazon or Roku from providing leases for media streaming boxes in the future similar to smartphone plans? Would that be somehow okay, but for some reason cable companies leasing STBs is not okay? If so, why? We note that Apple

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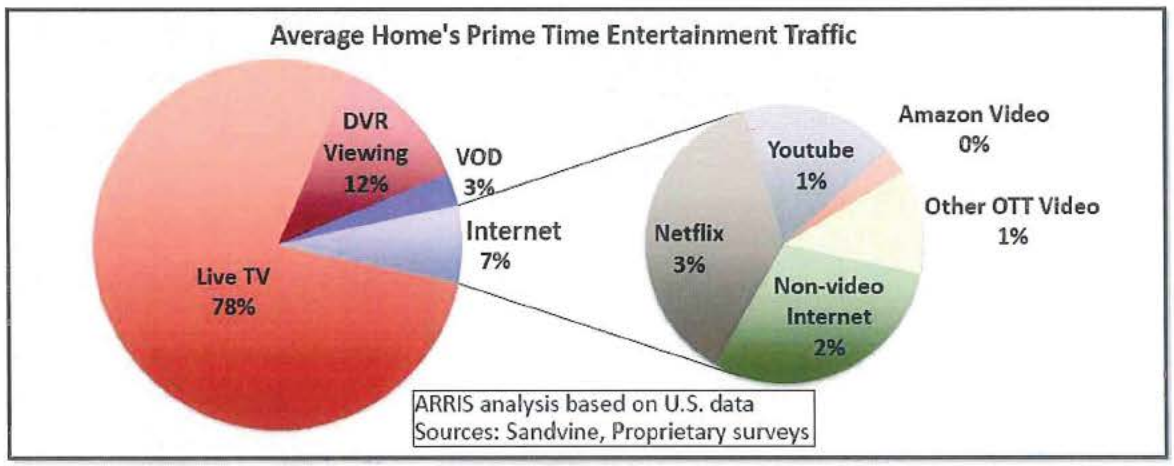
and the wireless industry have innovated greatly in how consumers purchase smartphones, with most customers now paying on some kind of monthly basis, and many customers choosing leasing options. Would this have been possible if the FCC or some other regulatory body disallowed leasing cell phones years ago?

From a technology standpoint, STBs are the consumer long distance service of media consumption. Just as consumer long distance services were, over a period of a decade or so, largely made irrelevant due to changes in regulation, technology and industry structure, STBs are similarly a product that for technology and industry structure reasons are already in decline, which will likely continue for many years. Effectively all players in the media distribution ecosystem agree that ultimately media will be served up over Internet links with some sort of CPE in the home likely serving the functions that today are provided by STBs, cable/DSL modems and potentially Wi-Fi routers. No one knows what this CPE will be called, it may maintain the moniker of media streaming device, or a marketing department somewhere may come up with a better name, but by regulating what appears to be near-term monopolistic profit pools of cable companies today, regulators run the risk of stymieing the very competitors and their ability to innovate financing options for their solutions in the future.

Implementing specification for customer premises equipment presents a risk of stifling innovation and unintended consequences. In the current environment, network operators maintain networks and often update software remotely to either correct flaws (e.g., software bugs) or provide new features. The introduction of a standard would introduce a delay in delivering fixes to customers. The establishment of a standard also could reduce competition among operators because new differentiating features would likely need to work within the framework of the standard; operators may need approval from a standards body prior to implementation, which would alert competitors. We believe the implementation of CableCARDs, while well intended, inhibited new technologies. For example, a technology known as Switched Digital Video (SDV) enabled operators to provide customers with more channels without the need to upgrade the entire delivery network. Because CableCARDs were incompatible with SDV, some customers did not obtain the benefit of these advances on a timely basis. We also note it could take years to develop a true standard and standards body, while technology is quickly taking the industry in a different direction.

Today's pay-TV technology does not support universal CPE. Each operator purchases equipment based on its own specifications. Equipment provided by operators such as Comcast (X1), AT&T (U-verse), AT&T (DirecTV), Verizon's (FiOS), etc. are not interchangeable. Operators, some of which compete directly within markets, have selected different technologies. Following its acquisition of DirecTV, AT&T's primary video service is based on satellite. Comcast's X1 initiative allows it to provide its customers with a unique experience based on a User Interface (UI) developed internally. Verizon's FiOS service is delivered via Fiber to the Home (FTTH) and while its broadcast implantation resembles most of the cable TV operators' methods, its implementation of Video on Demand is different and employs an alternative IP technology. The ability of the carriers to update software for all the necessary platforms in the delivery stack would be substantially limited if a standards body had to be consulted and involved every time. We believe the pay-TV operators make hundreds of updates and patches per month and this would be more difficult should the FCC proposal go into effect.

Most video today is delivered via broadcast technology, an approach in use since the earliest broadcasts beginning last century. Unicast technology exists and is widely employed, but networks cannot support a flash cut because of the enormous capacity needed. Sure, the experience works when one or a few homes enjoy video via IP streams; once an entire neighborhood tries to watch video via IP, the networks simply do not have sufficient capacity. U.S. operators would need to support about 94 million video subscribers. The switch from broadcast QAM to on-demand IP video more than doubles demands on networks, and demands increase further as picture quality improves from standard definition to high definition to ultra-high definition. Data from ARRIS and Sandvine indicate that the average home obtains 78% of its prime time entertainment via live broadcast vs. 7% from the Internet, 12% from recordings and 3% on-demand.



Source: ARRIS.

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Options exist for residential customers to avoid renting CPE. Such users are referred to as "cord-cutters" or "cord-never," and based on data from ComScore, only a modest number of households have implemented such a strategy. These households purchase a high speed data service and then utilize free services or subscribe to over-the-top providers such as Netflix, Amazon, Hulu, among others. The package can be enhanced with news and sports content from an aerial antenna, but this option is not universally available. The point we would like to make to investors and regulators alike is that the transition away from the traditional STB world is already happening.

The industry has embarked on a market-driven evolution of video delivery. We believe operators eventually embrace a strategy that employs the Internet Protocol (IP), but making this transition requires considerable capital investment and operators have disclosed strategies that allow for a gradual transition. Operators like AT&T and Comcast have identified hybrid strategies; whereas, others such as Time Warner Cable have introduced an IP solution in select markets. The cable TV industry, through the Cable Labs body, has developed a specification known as CCAP (Converged Cable Access Platform) to provide a framework to enable an evolutionary transition.

Cisco's latest VNI (Visual Networking Index) report notes that global IP traffic has increased fivefold over the past five years, and will increase nearly threefold over the next five years. The report also forecasts that global IP traffic will grow at a five-year CAGR of 23% from 2014 to 2019, reaching 1.1 zettabytes in 2016 and growing to 2.0 zettabytes in 2019. Not surprisingly, the largest component of IP traffic today is video, with IP video making up 67% of all Internet traffic globally, according to the report, and expected to reach 80% in 2019.

IP Traffic, 2011–2016

	2014	2015	2016	2017	2018	2019	CAGR (2014–2019)
By Type (Petabytes [PB] per Month)							
Fixed Internet	39,912	47,811	58,321	72,261	90,090	111,894	23%
Managed IP	17,424	20,460	23,371	26,087	29,274	31,858	13%
Mobile data	2,514	4,163	6,751	10,650	16,124	24,221	57%
By Segment (PB per Month)							
Consumer	47,743	58,145	71,470	88,740	111,019	138,410	24%
Business	12,108	14,289	16,973	20,258	24,469	29,563	20%
By Geography (PB per Month)							
Asia Pacific	20,729	24,819	29,965	36,605	44,217	54,423	21%
North America	19,630	23,557	28,228	33,649	41,465	49,725	20%
Western Europe	9,604	11,237	13,516	16,407	20,058	24,691	21%
Central and Eastern Europe	4,085	5,269	6,894	9,381	12,596	16,855	33%
Latin America	4,297	5,373	6,663	8,299	10,356	12,870	25%
Middle East and Africa	1,505	2,179	3,177	4,658	6,797	9,409	44%
Total (PB per Month)							
Total IP traffic	59,851	72,434	88,443	108,999	135,489	167,973	23%

Source: Cisco VNI, 2015.

A compromise may exist. Mandating a universal network technology comes at a cost, and we do not believe it is the best path forward for the industry or for consumers. Perhaps a solution exists that allows operators to maintain current network evolution plans while offering residential customers the option to either rent or purchase TV equipment. Shaw Communications of Canada currently operates in such a structure and sells a basic HD STB for just over $100 and a high-end gateway for $270. Some U.S. operators already offer customers the ability to purchase or rent cable modems (i.e., devices used to enable high speed Internet service). Time Warner Cable has reported that with this option, only 14% of their customers take the purchase option, which suggests that the majority of consumers may prefer the rental option. Customers accepting the purchase option may sacrifice the ability to obtain free replacement equipment in the event of failure or obsolescence. If equipment is obtained from a supplier other than the operator, customers face the risk of interoperability issues and the prospect that some network features are not supported. The FCC proposal, unfortunately, pushes a for-purchase box by everyone except cable. We believe allowing the natural migration towards app-based access to STB features and functionality would save consumers the most money overall.

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Company Citations

Company Name	Ticker	Exchange	Currency	Closing Price	RJ Rating	RJ Entity
Alphabet, Inc.	GOOG	NASDAQ	$	739.15	2	RJ & Associates
Amazon.com Inc.	AMZN	NASDAQ	$	594.60	2	RJ & Associates
Apple Inc.	AAPL	NASDAQ	$	108.66	3	RJ & Associates
ARRIS	ARRS	NASDAQ	$	21.73	1	RJ & Associates
AT&T Inc.	T	NYSE	$	38.50	2	RJ & Associates
Charter Communications, Inc.	CHTR	NASDAQ	$	202.55	2	RJ & Associates
Cisco Systems	CSCO	NASDAQ	$	27.69	2	RJ & Associates
Comcast Corp.	CMCSA	NASDAQ	$	61.60	1	RJ & Associates
NETGEAR Inc.	NTGR	NASDAQ	$	39.03	2	RJ & Associates
Time Warner Cable Inc.	TWC	NYSE	$	204.46	2	RJ & Associates
Verizon Communications	VZ	NYSE	$	52.18	2	RJ & Associates

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Market Perform (MP3) Expected to perform generally in line with the S&P 500 over the next 12 months.
Underperform (MU4) Expected to underperform the S&P 500 or its sector over the next six to 12 months and should be sold.
Suspended (S) The rating and price target have been suspended temporarily. This action may be due to market events that made coverage impracticable, or to comply with applicable regulations or firm policies in certain circumstances, including when Raymond James may be providing investment banking services to the company. The previous rating and price target are no longer in effect for this security and should not be relied upon.

Raymond James Ltd. (Canada) definitions

Strong Buy (SB1) The stock is expected to appreciate and produce a total return of at least 15% and outperform the S&P/TSX Composite Index over the next six months.
Outperform (MO2) The stock is expected to appreciate and outperform the S&P/TSX Composite Index over the next twelve months.
Market Perform (MP3) The stock is expected to perform generally in line with the S&P/TSX Composite Index over the next twelve months and is potentially a source of funds for more highly rated securities.
Underperform (MU4) The stock is expected to underperform the S&P/TSX Composite Index or its sector over the next six to twelve months and should be sold.

Raymond James Argentina S.A. rating definitions

Strong Buy (SB1) Expected to appreciate and produce a total return of at least 25.0% over the next twelve months.
Outperform (MO2) Expected to appreciate and produce a total return of between 15.0% and 25.0% over the next twelve months.
Market Perform (MP3) Expected to perform in line with the underlying country index.
Underperform (MU4) Expected to underperform the underlying country index.
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Outperform (2) Expected to appreciate and outperform the Stoxx 600 over the next 12 months.
Market Perform (3) Expected to perform generally in line with the Stoxx 600 over the next 12 months.
Underperform (4) Expected to underperform the Stoxx 600 or its sector over the next 6 to 12 months.
Suspended (S) The rating and target price have been suspended temporarily. This action may be due to market events that made coverage impracticable, or to comply with applicable regulations or firm policies in certain circumstances, including when Raymond James may be providing investment banking services to the company. The previous rating and target price are no longer in effect for this security and should not be relied upon.

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Rating Distributions

	Coverage Universe Rating Distribution*				Investment Banking Distribution			
	RJA	RJL	RJ Arg	RJEE/RJFI	RJA	RJL	RJ Arg	RJEE/RJFI
Strong Buy and Outperform (Buy)	57%	67%	59%	47%	18%	42%	0%	0%
Market Perform (Hold)	38%	31%	41%	39%	5%	14%	0%	0%
Underperform (Sell)	5%	2%	0%	14%	7%	0%	0%	0%

* Columns may not add to 100% due to rounding.

Suitability Ratings (SR)

Medium Risk/Income (M/INC) Lower to average risk equities of companies with sound financials, consistent earnings, and dividend yields above that of the S&P 500. Many securities in this category are structured with a focus on providing a consistent dividend or return of capital.

Medium Risk/Growth (M/GRW) Lower to average risk equities of companies with sound financials, consistent earnings growth, the potential for long-term price appreciation, a potential dividend yield, and/or share repurchase program.

High Risk/Income (H/INC) Medium to higher risk equities of companies that are structured with a focus on providing a meaningful dividend but may face less predictable earnings (or losses), more leveraged balance sheets, rapidly changing market dynamics, financial and competitive issues, higher price volatility (beta), and potential risk of principal. Securities of companies in this category may have a less predictable income stream from dividends or distributions of capital.

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High Risk/Growth (H/GRW) Medium to higher risk equities of companies in fast growing and competitive industries, with less predictable earnings (or losses), more leveraged balance sheets, rapidly changing market dynamics, financial or legal issues, higher price volatility (beta), and potential risk of principal.

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