

OTT/VOD a Cable Provider Necessity, But Studios Guard Content

Companies: AAPL, AMZN, BBY, CBS, CHTR, CMCSA, CVC, DIS, DISCA, DISH, DTV, GOOG, LSTZA, MSFT, NFLX, ROVI, T, TWC, TWX, TYO:752/PC, TYO:6753, TYO:6758/SNE

December 15, 2011

Research Question:

How successful will cable companies be in distributing OTT content themselves?

Summary of Findings

- Cable companies require an OTT solution in order to address viewers' demands, but are in the best position to do so because of customer relationships. Customers will remain MSO subscribers.
- Older content costs will rise for <u>Netflix Inc.</u> (NFLX), <u>Amazon.com Inc.</u> (AMZN) and <u>Apple Inc.</u> (AAPL). Studios will guard newer content.
- Comcast Corp. (CMCSA) is expected to make an OTT-related announcement at CES 2012. Our July and October reports found Comcast to be best positioned to benefit from OTT growth.
- Cable companies should benefit from day-and-date smaller-movie releases over premium <u>VOD</u> and see growth in regular VOD offers.
- OTT growth is slowed by limited content and a lack of standardization between devices and TVs. A studio executive said studios have focused on <u>UltraViolet</u> as a distribution model.
- One industry specialist expects Apple to join the TV game in 2012. This source and a studio executive also said consumer electronics companies, particularly Sharp Corp. (TY0:6753) and Panasonic Corp. (TY0:6752/PC), will be challenged by South Korean competitors and industry consolidation.
- ➤ A content creator expects an alliance between cable companies and consumer electronics manufacturers. A studio executive reported working with manufacturers on connected devices.
- Rising subscription costs were customers' top reason for dropping cable, and may result in an a la carte system for sports. A studio executive and an industry survey reported a drop in TV ownership.

	Cable Companies' OTT	VOD Demand	Content Costs & Restriction
Cable Operators	1	1	1
OTT Content Creators	1	N/A	N/A
Software Developers	1	N/A	N/A
Studio Executives	1	1	1
Industry Specialists	1	1	→

Silo Summaries

1) CABLE OPERATORS

Cable companies continue to expand VOD and OTT content, and are ready to directly distribute more OTT content but are constrained by content owner licensing and regulatory restrictions, according to these four sources. Comcast is expected to make an announcement regarding OTT at CES 2012. One source said Apple and Amazon will not be able to compete with live TV because their relationships with content creators are not as strong.

2) CONTENT CREATORS

One of these two sources was optimistic about cable companies' OTT adoption. Cable companies have an advantage of already having customer relationships and content providers. Our second source sees competition developing between cable/TV manufacturers and the Web.

3) SOFTWARE DEVELOPERS

All three sources said demand for OTT is increasing. One said Comcast and AT&T are ahead of the OTT and VOD curve. The second source said OTT growth benefits cable companies, OTT device makers and software developers. Two sources cite a lack of standardization between device manufacturers and TVs.

4) MOVIE STUDIO EXECUTIVES

Two of these three sources believe smaller movies are going to a day-and-date release for premium VOD, which will benefit cable companies. All three said VOD is looking positive for cable companies. One source's studio is actively developing OTT platforms. He said Netflix will continue to get older content but at a higher cost and will struggle to get new content from studios. Another source expects consolidation among studios and consumer electronics companies, particularly with studios working with South Korean consumer electronic companies on connected devices.

5) INDUSTRY SPECIALISTS

All four sources expect more growth in VOD. Cable companies stand to benefit from growth in VOD ad revenue. Our second source expects cable operators to succeed in distributing OTT/VOD content themselves because they control the delivery system and in many cases own the content. TV manufacturer consolidation is likely, placing Sharp in a dangerous position. Our fourth source said large cable operators are well-placed to distribute content themselves but barriers include content owner licensing costs and regional broadcast restrictions.

6) CABLE AND OTT CUSTOMERS

Four of these five customers cut cable subscriptions because of cost, and the fifth source is considering cutting the cord. Sources have been satisfied with cost and availability of content through Hulu, Netflix, Roku and other OTT providers. Sources use a combination of OTT options. Two voiced an interest in cable companies' a la carte services.

Background

Over-the-top (OTT) TV via the Internet has been deemed a means through which subscribers can "cut their cable cord" and cancel cable subscriptions, but so far reports of cable cutting have been overblown. Still, cable companies now are creating their own OTT content and enticing viewers with video-on-demand (VOD) alternatives, including premium options with new release movies.

Blueshift's July 21 report found Comcast best positioned among cable companies to benefit from growth in OTT viewing. Sources also reported a need for aggregation and curation service providers. Blueshift's Oct. 20 report on Redbox and Netflix found that VOD had become more popular because of its convenience and movie selection while OTT use continue to increase. Again, Comcast was labeled as in the lead to benefit most from OTT and VOD growth.

CURRENT RESEARCH

In this next study, Blueshift assessed whether cable companies will be successful in distributing OTT content. We employed our pattern mining approach to establish and interview sources in seven independent silos:

- 1) Cable operators (4)
- 2) Content creators (2)
- 3) OTT software developers (3)
- 4) Movie studio executives (3)
- 5) Industry specialists (4)
- Cable and OTT customers (5) 6)
- 7) Secondary sources (5)

We interviewed 21 primary sources, including five repeat sources, and included five of the most relevant secondary sources focused on Verizon Communications Inc.'s (VZ) rumored partnership with Coinstar Inc.'s (CSTR) Redbox, Verizon's streaming service plans, the increase in programming costs prompting the consideration of a la carte packages, the future of metered broadband, and declining TV ownership.

Silos

1) CABLE OPERATORS

Cable companies continue to expand VOD and OTT content, and are ready to directly distribute more OTT content but are constrained by content owner licensing and regulatory restrictions, according to these four sources. Cable companies are adapting to provide OTT offerings in order to meet customers' demand for content at any moment. Comcast is expected to make an announcement regarding OTT at CES 2012. One source said Apple and Amazon will not be able to compete with live TV because their relationships with content creators are not as strong. DISH Network Corp. (DISH) may be at a disadvantage because it lacks broadband for OTT distribution.

VP of video product development for a large cable operator/MSO

The top 25 cable operators continue to expand VOD OTT content, along with access through viewing on multiple devices. No one company has taken the lead. Success and rapid growth are constrained by content owner licensing and regulatory restrictions that control regional distribution. Netflix's growth and customer fluctuations have had no effect on cable operators although Verizon's FiOS may become a threat to Netflix. To date, MSOs have not gained new customers from expanded VOD/OTT offerings. Comcast, by virtue of its size and customer base, may have a slight advantage. DISH may lag in offering VOD OTT because distribution requires telecom and/or broadband.

"We and others are expanding our OTT services by making the content available on alternative devices. Recently we introduced an iPad app that offers viewing of 30 to 35 channels, but it will only be available for viewing in the home because of certain programming rights. We also offer OTT content on the computer. ... Soon you may be able to buy Turner [Time Warner Cable Inc./TWC] content. You may be able to get last month's but not last week's episode. That's how Turner is approaching it."

- "No one company has expanded OTT offerings faster in the last six months. All are moving forward, especially the larger MSOs such as Comcast, Time Warner, Cablevision [Systems Corp./CVC] and Charter [Communications Inc./CHTR]. It's more a matter of sequencing. Comcast has aggressively moved on-demand content over the computer. Cablevision has started with live linear. We have some on-demand on the computer but not 'live linear.' We all are aiming for the end goal of providing any content on any device in any location. And all are taking a slightly different path."
- "You can already stream OTT to the iPad. ... [Comcast's] Xfinity has a TV app, and so do Cablevision and Time Warner."
- "Has there been a change in the availability of movies on VOD? The short answer is no. There have been some tactical changes, changes in storage capacity. Only older titles have been added."
- "There is no evidence that anyone is gaining new customers. Comcast and Verizon are making content available through [Microsoft Corp.'s/MSFT] Xbox and that makes sense, but will they get incremental customers because of that? Not yet. Maybe in the long run, say a year, they may get more customers, but is it really going to be a game changer?"
- Large Cable Operator/MSO "We are in the same category regarding content, but you can also look at scale. Comcast ... or ... DISH TV might be large enough ... to get the
- rights to additional video and charge for it. But they would have to pay an awful lot for it. To date, no one has crossed that threshold."
- "For operators, there are a couple of problems. The content providers make a lot of money on fees they charge to operators for content, even if it's only for access on a short-term basis. This is irritating to us as content providers. But as operators, our relationship is first with the networks: [The Walt Disney Co.'s/DIS] ABC, CBS [Corp./CBS], The Food Network [Television Food Network G.P., 70% of which is owned by Scripps Networks Interactive Inc./SNI] and Discovery [Communications Inc./DISCA]. In some cases, [networks] decide how the content can be accessed. In other cases, they may not have that ability because Warner Bros., for example, retains the rights. But we are all mostly in the same boat when it comes to our distribution agreements as cable operators. Our right to distribute content is restricted regionally. ... The PC lets us distribute outside of our footprint, but access is still contingent on having a subscription or by virtue of being a subscriber. Licensing and regulatory restriction have tempered everybody's progress."
- "As we keep raising prices, we are getting to a threshold of pricing ourselves out of the market. When we think about consumers and consumption of OTT content, we have to ask what are the drivers. You can get access to
 - content that is not otherwise accessible, such as what is offered by Netflix. You can get content on different devices through Netflix and Hulu Plus [joint venture by Comcast, Disney and News Corp./NWSA]. And they have broken the barrier for charging but at a rate of \$8 to \$10 for access to a different class of subscription services. But the consumption is also driven by cost. ... Right now most OTT is free and a complement to the operators' current offering. If you want to see live content such as in sports or tonight's episode of Dancing with the Stars,-if you want timely viewing, you still have to work with the operators."
- "In general, the satellite providers are at a bit of a disadvantage for distributing VOD OTT. They can offer VOD, OTT, but by definition they ride on someone else's network. They need a telco or broadband. That said, the bundled customer is a sticky proposition."

satellite ln general, the providers are at a bit of a disadvantage for distributing VOD OTT. They can offer VOD, OTT, but by definition they ride on someone else's network.

Has there been a change in the

availability of movies on VOD?

The short answer is no. There

changes, changes in storage

capacity. Only older titles have

some

VP of Video Product Development

tactical

been

have

been added.

VP of Video Product Development Large Cable Operator/MSO

- "The Netflix customer might be inclined to look at free VOD content, but that is provided by most [MSOs]."
- "Verizon poses a threat to Netflix, but they are competing in a tangential, subset market."
- "Amazon is really just another viewing alternative and not a threat to cable. Customers will watch content on the best screen available."
- "Content creators are fundamentally indifferent to Amazon or Apple. They will sell to anybody."

Executive, video product development, midsize MSO

Cable companies/MSOs are in the best position to distribute OTT content because they have existing relationships with content creators, a knowledge of the process and the means to encode content. No one company is yet gaining paying customers from OTT offerings because OTT is more of a necessary evil for keeping customers. Netflix's streaming services continue to grow, but the company has not moved to obtain licenses for recent feature film content, unlike Vudu Inc. and Best Buy Co. Inc.'s (BBY) CinemaNow. Central to moving the OTT pay/access model forward would be the creation of a unified user-interface guide available for TV and accessible from the Internet.

- "It has kind of become cable's stakes to provide OTT content. It's making the TV Everywhere play, at least to current subscribers. The question is whether it moves from current subscribers to other or new subscribers."
- "Currently a lot of content is subscriber-based, and the cable operators are in a good position to benefit from OTT growth. Most of the large MSOs already have a relationship with [Disney's] ESPN, for example, so that at least given them a big advantage in knowing the process, knowing already how to encode content. They should benefit as long as the cable operators provide access on multiscreen viewing. They also have developed relationships with local advertisers. I believe [MSOs] are well-placed to continue to be the primary content providers of packages and licensed programming."
- "There are no losers among the big cable operators/MSOs. It is the smaller companies that are trying and struggling to do this. Some have asked whether someone is going to offer wholesale OTT that can be delivered to the smaller operators. There is definitely a lot of talk about it and has been with the realization of the need when digital came out, but no one is doing it vet."
- "I don't think anyone is gaining paying customers. The offering is now secondary to just keeping your existing customers."
- "All of the players offer the concept of content licensing. Once you pay through a [household] subscription, to date, there is no additional charge for viewing on other devices."
- "The attitude of the content creators/movie studies is ... the more the merrier."
- "There is a general economic piece in the picture when you limit the way consumers can gain access to content. There is a power shift back to the studios with regard to feature films, and as a result they are crafting better deals for themselves."

There is a general economic piece in the picture when you limit the way consumers can gain access to content. There is a power shift back to the studios with regard to feature films, and as a result they are crafting better deals themselves.

Executive, Video Product Development Midsize MSO

- "I do not know anyone who has benefited from those who have stopped getting Netflix. One reason people have jettisoned Netflix is because they are running out of things they want to see from their archive library. They have new additions to the library, but they are not new movies. I expected Netflix, which still has a \$9.99 package, to start offering new titles. Others are licensing including Vudu, which gives you access to a newer movie for \$1.99. You can do the same with CinemaNow, owned by Best Buy."
- "Netflix still is seen as having a growing rate for its high-speed Internet services. There was a steady increase in 2010 and 2011 in bandwidth usage, and it has somewhat leveled off. But [streaming] continues to grow but at a slower rate."
- "In six months, you will hear announcements about OTT from some of the big guys. Most speculate Comcast is about to make an announcement about OTT content and they will make it at CES in January. They tend to take big steps when they do something so that's what is expected."
- "A lot of things go back to who will own the user interface or guide. How do you create a unified interface, one guide that gets you everything? No one has captured that space, yet but everyone is moving toward it. That is the key. ... Set-top boxes are a gateway. The theory is that Google [Inc./GOOG] may be able to do it."
- "Cablevision, Time Warner and almost everyone has live viewing of linear channels through iPad apps."
- "Regarding the Boxee [Inc.] tuner, it's an interesting ideal. But what is missing is that Boxee doesn't have a DVR capability to watch, for example, live sports or news. If they really want to provide consumers with the option of cutting the cord, they have to have all three pieces. Right now Boxee has two of the pieces."

Vice president of operations for a regional cable service provider; repeat source

Few consumers are pulling the plug on their cable service because operators are offering a vast amount of VOD content. Physical entertainment media and stand-alone streaming video distribution have the most to lose as VOD absorbs their

business. Broadband subscribers view cable companies' offering of live TV as a bonus. This source is proud of his VOD offering (from Rovi Corp./ROVI) and said it competes well against Netflix and similar streaming video networks.

- "Consumers aren't pulling the plug, at least in our area, because we're also their broadband provider and the triple play bundle is cheaper for them than either service by itself. So if they're watching video online, it makes sense for them to pay a little extra every month for live TV and our VOD content."
- "We do charge more for broadband without basic TV. People have to have a very good reason not to take TV along with the broadband."
- "At this point, live TV is like a bonus. It used to be the whole proposition, even three or five years ago. Now it's something we give away to keep the content providers happy. It's like how magazines switched from charging people for subscriptions to basically giving the magazine away to boost their ad rates."
- "We have extensive video on demand in place. I'm not sure you would call it OTT because it's delivered through our cable box. Maybe you'd call our cable box an OTT device with live TV built in. We're OK with that. It's very successful."
- "Our VOD makes us a local Netflix with unlimited viewing and a live TV option on top. Netflix can't deliver live TV. The Internet can't deliver live TV. So if we can deliver more or less what they can, plus live TV, they're in trouble."

Our VOD makes us a local Netflix with unlimited viewing and a live TV option on top. Netflix can't deliver live TV. The Internet can't deliver live TV. So if we can deliver more or less what they can, plus live TV, they're in trouble.

> Vice President of Operations Regional Cable Service Provider

- "Video rental is dead. We're the new Blockbuster and the new Netflix." We're also the new cloud video vendor, the new iTunes. Actually, Apple has a real challenge here to their TV download business, which might be what they're up to with Apple TV.
- "[Amazon's] Kindle Fire has the problems of any other tablet service: small screen, bad picture."

Government relations employee for a large cable company

OTT video services for cable are necessary as a defensive strategy. TV Everywhere still is not fulfilling its potential because of issues with content licensing, but remains important for cable customer retention. Cable has stumbled with VOD in terms of navigation. Cable companies can fix this issue, but TV Everywhere may be a bigger priority.

- "If [a cable company] is smart enough to have [Time Warner's] HBO Go on their system, then people can see their cable bill and think, 'Well, I can watch Boardwalk Empire on my iPad in the backyard."
- "We don't really have TV Everywhere now. It's a nice marketing term."
- "Licensing impediments ... seem like ... the most important thing. There's a lot of money being spent on lawyers."
- "Cable kind of fumbled the ball with VOD. They didn't market it well. And navigation is still a problem."
- "Can they fix it? Yes. But do they want to? Because of TV Everywhere, it might get pushed to the back burner."
- "The big roadblocks for VOD are marketing and navigation ... to be user-friendly and obvious."
- "One of the best things [CBS'] Showtime did was to hire Robert Greenblatt, who was a known commodity. He brought a lot of people and shows in [for Showtime]: Nurse Jackie, Homeland, etc."

2) CONTENT CREATORS

One of these two sources was optimistic about cable companies' OTT adoption. Cable companies have an advantage of already having customer relationships and content providers. Our second source sees competition developing between cable/TV manufacturers and the Web. Cable and TV will dominate simply because the user experience is better and these companies have more resources to buy truly compelling content.

Founder of a content-on-demand company traded OTC

This source was extremely optimistic about cable providers' OTT adoption, which presents an opportunity for start-up content producers to get a place on cable companies' platforms. Hospitality markets are a major buyer of OTT content.

"Our product is already on the box for the three major MSOs, which is Time Warner, Comcast and Cox [Communications Inc.]."



- "I think the cable companies have come back swinging, and the various boxes and gadgets designed to bypass cable will be marginalized at best. Cable has the advantage of already owning the pipeline, so while they rarely own the content, they act as gatekeepers and can collect a toll on anyone looking to use their distribution network."
- "In terms of relationships with the content providers, I can tell you we are very happy to work with the cable companies and at least the big three-Time Warner Cable, Comcast and Cox-have been happy to work with us. They're eager to get more than just movies on their on-demand channels. They want niche content that's not time-sensitive, so companies like us can basically provide an entire channel right out of the box without needing to take up an entire number on the remote or an entire live stream."
- "Cable can turn OTT content into a revenue center or at least a revenue-neutral proposition."

Head of a TV production studio traded OTC

Competition is developing between cable/TV manufacturers and the Web. Cable and TV will dominate simply because the user experience is better and the related companies have more resources to buy truly compelling content. OTT is more advanced in foreign markets. Cable companies and TV manufacturers are mutually reliant on one another.

- "We are getting a lot of interest driven by the television manufacturers. They're working through the cable operators to subsidize programming that looks awesome on the latest screens. Think of it like the shift to HD, only voluntary because it gives
- "The TV makers want to stay relevant, but they have no content arm of their own. This is especially important when it comes to 3D and other enhanced screens, which are very expensive and need that 'killer app' in terms of programming that makes the upgrade worthwhile."

the big screens a competitive edge this time around."

- "Cable and the TV are married at this point. What threatens the TV makers probably threatens the cable company, because if you cut the cable you're left with a huge mirror on your wall that you can maybe watch DVDs on. If you throw out the TV, the cable box becomes equally
- "Against this marriage you have the Internet. ... The TV makers don't want that. In many cases, they're already the computer makers, so they gain nothing from another computer maker colonizing their screens."
 - "What the screen makers can control is the user experience. They can provide a premium picture quality, onboard interface like TiVo had, 3D, whatever it takes to remain relevant. But they need content to show off those features, and that's where cable comes in."
- "Every cable operator on earth wants a 3D channel to make the TV makers happy and show off their own continuing importance in the new entertainment industry. Obviously, you can stream 3D content online, but it won't look great even if you're wearing the glasses."
- "Comcast may do it first because Time Warner has its own ways of approaching premium content and is less married to being a television company. Comcast has the money and the need, and they've got the channels to cross-market into."
- "We find the biggest interest in Asia where the triple play is more entrenched. At this point people there are used to the idea of the screen as being their game screen, their Internet screen. Sometimes the game box is their Internet box, and it all routes through the television anyway. They're very eager for this kind of enhanced content because it's nothing new or strange to them. Content is content there."

3) OTT SOFTWARE DEVELOPERS

All three sources said demand for OTT is increasing. One said Comcast and AT&T Inc. (T) are ahead of the OTT and VOD curve. Content still is lacking, and Verizon's national streaming efforts are at risk because of this. Content is restricted because studios and cable companies resist changes to their business models. The second source said OTT growth benefits cable companies, OTT device makers and software developers. Two sources cite a lack of standardization between device

at this point. What threatens TV makers probably threatens the cable company, because if you cut the cable you're left with a huge mirror on your wall that you can maybe watch DVDs on. If you throw out the TV, the cable box becomes equally useless.

Cable and the TV are married

Head of a TV Production Studio

manufacturers and TVs. TV operators are considering charging for bandwidth. Our third source expects HBO to offer a la carte service, and said Amazon's film content threatens Netflix.

Executive of Solve LLC, developer of an OTT delivery system; repeat source

Comcast and AT&T are the most progressive in adding features that consumers want, including OTT and VOD. OTT content overall still is lacking because movie studios and cable operators want to keep the current model in place. This source does not think Verizon's efforts to offer a national streaming service will work because of content licensing issues.

- "[Cable providers] all have some sort of OTT strategy, even the very small ones. Comcast and AT&T are definitely in the forefront of trying to deliver additional features to their subscribers."
- "There's really nothing wrong with cable, especially now as they're providing more of what the consumer wants."
- "I don't believe [significant cord cutting will occur]. There is a significant increase in [OTT] content, but the content that people really want is not available. The studios are keeping [that content] pretty close to the vest. They realize the mistake they made in the beginning, and they're starting to charge true value for it."
- "Verizon is a telecommunications company. The difficulty they're going to have [with a national OTT strategy] is that they're trying to break the model that has worked for very large movie studios and cable companies for a very long time. They're going to have the same difficulty getting content that Netflix is having."
- "I think it's doomed to fail. There's no reason for [the studios and cable operators] to break up the model. You can't become a nationwide cable company. For the studios, they would be trading dollars for pennies."
- "A lot of the studios haven't entered the [OTT] market themselves. That's a pretty good indication that they think it threatens their business model and they don't think they're going to make money doing so-even to the point where they've talked about shuttering Hulu, which makes \$500 million in advertising. That seems like a lot of money, but that pales in comparison to the damage it's doing in aftermarket DVD sales, to syndication and to advertising buys during firstrun."
- "[The OTT market] is not nearly big enough. Even the companies that on the surface have been successful still are not entirely delivering what people want. The studios are starting to clamp down on those licensing schemes so the content really goes from A-minus to a D level."
- "We've seen growth [in demand for OTT], but ... it's really a gradual slope."

A lot of the studios haven't entered the [OTT] market themselves. That's a pretty good indication that they think it threatens their business model and they don't think they're going to make money doing so.

Executive Developer of an OTT Delivery System

- "It's mainly cable operators and the content owners [that are] benefiting from OTT technology. For the cable operators, it will help to keep people tethered. The biggest benefit is to the small content producer who doesn't have a distribution outlet. They produce something that just doesn't have mass appeal, and prior to this technology, they just didn't have any way to get it out to people and to make money off of it."
- "The people that are cutting the cord are those who don't want to pay for things. It's very difficult to separate people from their money for content."
- "The consumer is more concerned about price than moving to a different delivery platform. In these economic times, people are trying to cut everything they can."
- "The only people that are completely cutting the cord are tech geeks and people who are too cheap to pay for cable. The entire industry has a very difficult time getting people to pay for subscriptions. People just do not see the value in the content. I think people who are leaving Netflix are just going back to cable or doing without completely."
- "Netflix is charging ... not nearly enough. They're spending billions of dollars on [content] libraries, but their customers are abandoning them when they try to raise their price to something reasonable."
- "For us and other [OTT] companies I've talked to, mobile is a complete waste of time. A 30-second or two-minute clip? Sure. But no one is going to sit there for an hour and a half and watch a movie on their iPad. ... It's less than 1% of our daily views. If we could go back and do it again, we wouldn't have put the development time into mobile."

President of an IPTV software development firm

Internet-connected device makers and OTT software developers have the most to gain from the expansion of streaming options, but even cable and satellite providers can benefit by allowing customers to watch what they want, whenever and wherever they want. He expects movie studios to seriously consider offering OTT options themselves rather than licensing their content to others. As bandwidth use increases, TV operators are considering charging for bandwidth use.

- "[Demand for OTT] is definitely ramping up quickly. 2011 was a pretty big year, and I think 2012 can be even bigger. Everyone I talk to knows what a Roku [Inc.] is, so that's a sign of progress."
- "There's a big influx of companies wanting to get their feet wet [with OTT TV]. They're looking to get into Roku, gain some traction, gain some subscribers and then build on that and move into other devices."
- "Certainly the device manufacturers, such as the makers of Roku or connected TVs, [have a lot to gain from OTT expansion]. We're not anywhere near any kind of standardization between these platforms. The OTT solutions providers can benefit as well."
- "Even the traditional pay TV operators stand to benefit. They're taking more of a reactive approach than a proactive approach because they're seeing subscribers drop and bandwidth increase from their
- "The idea of these pay TV operators offering an OTT solution is definitely attractive [to consumers] and part of that reactive approach."

They're considering charging for bandwidth because they realize a lot of their customers that have cable and Internet are using the Internet to watch content that's not on cable.

IPTV Software Development Firm

- "It's attractive that even with a traditional pay TV subscription service that you can take that content with you to a hotel or to the airport. It goes with the whole concept of watching what you want, where you want."
- "I have Comcast; I've shaved the cord but not cut it. I'll watch Netflix, and obviously Comcast is going to see my bandwidth consumption go up. I've heard some talk about some of these pay TV operators considering charging for bandwidth, which is definitely going to turn people off and make people think about what they're paying for in terms of content."
- "They're considering charging for bandwidth because they realize a lot of their customers that have cable and Internet are using the Internet to watch content that's not on cable. ... Time Warner tried to charge for bandwidth back in the mid- to late '90s and it didn't go over too well."
- "If I could get my sports [through an OTT solution], I would completely cut the cord. If I could just go on my Roku and fire it up for a fraction of the cost, why wouldn't I do that?"
- "We provide solutions for companies looking to deliver and monetize their content to any Internet-connected device. ... If there's a device that connects to the Internet and pulls video, we can get an application on there for a customer."

Microsoft executive: repeat source

Lack of new content and rising cable bills are driving cord cutting, but OTT TV is hindered as an alternative by a lack of a standardized device and of a central marketplace to buy content. A big industry shakeup could take place in the next few years. This source expects HBO to offer its channel directly to consumers. If combined with sports packages, the move would be a boon to the OTT market. Amazon's film content provides serious competition for Netflix.

- "People are running out of money. You can't have cable bills going up 10% a year every year with the same stuff you had last year on repeat."
- "That's likely to drive cord cutting in general. As cord cutting starts to roll along, as the demand for OTT content goes up-which I anticipate happening-there's going to be a balance between ISPs and video services. ISP costs are going to keep going up until they make up for whatever the loss is on the video service margins. ISP margins are better because you don't have to keep paying these programmers who keep raising their prices every year."
- "It's still years away for anybody to realistically cut the cord. It's still difficult for people to find a central source where they can buy all their media. Do I want to lock myself into the Apple ecosystem? Or do I want to work on the opposite end of the spectrum and use the Android ecosystem, where there are 50,000 apps and I have to remember all

From an OTT perspective, there needs to be a solid central platform for people to grab onto. Right now there's Google TV, Apple TV, both of which are miniscule.

Microsoft Executive



- these different passwords? And does it work with my TV, and can I store it in the cloud?"
- "From an OTT perspective, there needs to be a solid central platform for people to grab onto. Right now there's Google TV, Apple TV, both of which are miniscule-Google TV for good reason because it's terrible. Logitech [International S.A./LOGI] can't get away from it fast enough, and their search function is broken. Apple TV is fine, but you can't really rent TV content. You have to buy episodes that you're only going to watch once, which is partly a terminology thing. But Apple TV provides a pretty solid cloud-based platform to watch the stuff you own."
- "Lack of a central device is huge right now. Microsoft threw its hat in the ring in a very big way when it updated its operating system on the Xbox. Microsoft has 60 million Xbox consoles in the world. They will get close to 40 million next year from a Gold subscriber standpoint—people that can connect to the Internet and have the ability to access OTT content."
- "Microsoft has opened up the Xbox platform to allow for other apps, such as Vudu or Amazon on-demand, to sell media. They now have Comcast and Verizon on the system. Verizon will be selling live channels [through the Xbox] on an IPTV basis. Comcast is not providing live channels yet, but is providing access to on-demand content if you're a Comcast video subscriber."
- "ESPN reupped [its NFL contract], and they're now paying \$2 billion a year for Monday Night Football. You know what the new content is? It's 'shoulder content,' talking heads, access to a little more clips. It wouldn't seem any different to someone sitting down watching Monday Night Football. But that additional \$1 billion a year is going to flow down to your cable bill. Comcast isn't going to eat that cost."
- "I anticipate in the next two to three years we're going to see HBO [divorcing itself from the cable providers] and going a la carte. There's just so much money available to them. They may lose some subscribers because a lot of the ISPs may say, 'Fine, we're not going to give discounts anymore' and it's going to cost \$30 a month for HBO through Comcast. But I anticipate they'll just find the business is too big. They could increase their revenues by \$1 billion a year."
- "The things to keep an eye on are when is HBO going to break off and then how do [cable operators] start gaining subscribers for a la carte sports. DirecTV [DTV] is basically selling the NFL Sunday Ticket a la carte to the 10% of people who can't receive their signal. They have at least a limited right to do that, so it's possible that these a la carte packages become a premier way for people to watch sports. That would likely result in ESPN going a la carte. Right now, only 20% of the people who receive ESPN actually watch it. ESPN is having 80% of the people subsidize 20% of the viewers just because they happen to order cable."

"There could be a breaking point where the cable providers start chopping up non-sports video packages. If you strip out ESPN and its networks, you will see your cable bill fall by about \$10 per month."

The things to keep an eye on are when is HBO going to break off and then how do [cable operators] start gaining subscribers for a la carte sports.

Microsoft Executive

- "TV Everywhere isn't going to make a big difference [in slowing cord-cutting]. It's fine. Time Warner Cable has the most robust TV Everywhere package, but it tends to cut off when you leave the house. You can watch live TV on your iPad in your house, but it's not TV Everywhere. If I'm a Time Warner subscriber and I go to an area [served by Comcast] and I want to watch Iron Chef tonight on my iPad, I'm then running over Comcast lines to watch Time Warner content. There are issues with net neutrality and whether they want to allow each other to do that because they can block that traffic."
- "The Comcast and Verizon stuff isn't really OTT because you're still locked into a subscription to access it. But the other stuff on the Xbox is definitely OTT, like UFC [Ultimate Fighting Championships]. Right now, UFC uses DirecTV, Comcast, etc., to sell pay-per-views. They do about 15 a year for \$50 each. They sell roughly 500,000 to 800,000 per event. Up until now, the only way to see it was to buy it through a cable or satellite provider. Microsoft has now put 14 million households on the market that can now buy UFC pay-per-view outside of the [cable or satellite] relationship. So the money would be flowing to Microsoft instead of [the TV operator]. Yes, you'd still have to be an ISP subscriber but you wouldn't have to be a video service subscriber, which is a pretty big deal because the UFC market is about an \$800 million a year marketplace for just that content."
- "Xbox is now the largest alternative set-top box in the United States."
- "Amazon will be different from Apple because they have the ability to offer a subscription service and Apple doesn't. I think Amazon provides serious competition to Netflix. Amazon is now available on just as many devices as Netflix, and they seem to have done a targeted capture of film content."

- "If you look at Netflix's movies, especially when the [Liberty Media Corp./LSTZA] Starz deal goes away, they're kind of bad. Amazon seems to have the better catalog films like Star Wars, maybe Lord of the Rings, targeting the big films that people are likely to rewatch on subscription, films that would likely continue to sell well at retail. They keep re-releasing DVDs of Star Wars because they sell, so there was a hesitancy to release them on subscription. I think Amazon is paying more out-of-pocket to go after films that will attract people, whereas Netflix, the bulk of the viewing is really TV content."
- "If you look at Netflix, you can see that aside from the cash that's flowing out, which is somewhere around \$400 million to \$500 million per quarter ... there's stuff that is sitting in off-balance-sheet accounts that when you total it up is \$3 billion to \$4 billion in content costs. They

Amazon provides serious competition to Netflix. Amazon is now available on just as many devices as Netflix, and they seem to have done a targeted capture of film content.

Microsoft Executive

- can't bring those accounts on the balance sheet until they know what's included in them. So if they bought the rights to show Relativity [Media LLC]'s movies on Netflix, but they haven't made three years of that slate yet, they can't book it. From a content perspective, they are starting to spend more and are showing a commitment toward it on a broad basis—billions of dollars over five or seven years—but they're really only spending about \$1 billion a year on streaming content."
- "Comcast acquiring the rights to offer more on-demand content, that's typical of the affiliate negotiations that are taking place. Comcast is passing through the charges for the Food Network. ... That ... allows them to compete with the more a la carte services."

4) MOVIE STUDIO EXECUTIVES

Two of these three sources believe smaller movies are going to a day-and-date release for premium VOD, which will benefit cable companies. All three said VOD is looking positive for cable companies. One source's studio is actively developing OTT platforms. He said Netflix will continue to get older content but at a higher cost and will struggle to get new content from studios. The second source said studios will not stream content themselves but will offer it on a nonsubscription basis to Amazon, Apple and others. The third source said cable companies are forced to develop an OTT solution in order to compete with the likes of Netflix, Roku and Hulu. One source expects consolidation among studios and consumer electronics companies, particularly with studios working with South Korean consumer electronic companies on connected devices, a theme of CES 2012. Panasonic could be threatened by increased competition and consolidation. Another source said TV ownership has decreased.

Executive at one of the big six studios

This source's studio is actively developing OTT platforms. He sees future potential for VOD on cable. Netflix has been a wakeup call in terms of realizing the importance of streaming rights. Netflix will continue to get catalog content but at a higher cost, and will struggle to get newer content. OTT will boost rentals, but the ownership model of movie content remains a challenge. Studios are focused on the distribution model of Digital Entertainment Content Ecosystem LLC's UltraViolet. This source foresees problems in consumer electronics, particularly for Panasonic, and expects consolidation as South Korean manufacturers take control of the electronics market.

- "From meetings I've been in, cable sees the opportunity and they're thinking about how to get into OTT. I don't know if it happens in the next six months? How they launch it and when, I don't know. But I've been in some of the labs and they're working on big stuff. Netflix opened their eyes to both the danger and the opportunity."
- "The studios' great hope is VOD. Comcast's demo at CES where you saw tablets controlling TVs was important. Consumers are so interested in the second screen. You're going to be able to throw things from tablet to TV and that will play well with TV."

I think Netflix, Amazon and Apple will continue to get access to our older catalog, and it'll cost a lot more money. I don't know if they can get into the currents and compete with HBO. It's hard to believe they'll be able to buy that stuff. The cable companies are definitely meeting with us about buying streaming rights.

Executive at one of the Big Six Studios

- "Premium VOD is really interesting but really challenging for exhibitors. We're trying to figure that out. I am encouraged for the potential for VOD. I think in the short term on a movie like Margin Call you don't have much to lose with day-and-date release. With bigger movies, we can't afford to do testing and throw weight around with exhibitors to do testing with a \$150 million movie so we can prove to exhibitors they won't get hurt. My next guess is that the next wave of premium VOD testing will be on indie, smaller titles. The day will have to come when the studios all have a huge movie and independently decide that it goes out on VOD, so the exhibitors get crushed if they don't carry it, just so there's finally a test."
- "When we went to day-and-date on VOD, cable companies were happy, but now they gripe about paying 70%. They were paying us 55%. They're very excited to get product earlier, but they don't like paying more."
- "I think Netflix, Amazon and Apple will continue to get access to our older catalog, and it'll cost a lot more money. I don't know if they can get into the currents and compete with HBO. It's hard to believe they'll be able to buy that stuff. The cable companies are definitely meeting with us about buying streaming rights."
- Executive at one of the Big Six Studios "I don't think anyone else will want to get into original production. The biggest opportunity is in home entertainment. I would be surprised if there isn't some consolidation in the studio space. It's hard to get a movie green lit right now. It's a tough business. When you're DVD business is mostly rental except the coolest movies, it puts a lot of pressure on the business. There are less movies being made but they are much bigger. They're ownable and repeatable."
- "Tablets are going to be key to the future. It's a game changer. It just makes everything OTT. It's yet to be seen whether there will be an ownership model that consumers will embrace. We know tablets and OTT will explode rental, but that's not big enough. We need an ownership model. That's the challenge. We're spending a lot of time on UltraViolet."
- "I worry a lot about the consumer electronics companies. ... There's going to be a huge consolidation. It looks like the Koreans are going to win. We're working with them aggressively on all the connected devices. That's what CES is going to be about."

Former VP for the distribution arm of a major motion picture studio; repeat source

This source does not expect studios to distribute streaming content themselves, but said they will make their premium content available to aggregators such as Amazon and Apple as long as movies are distributed on a rental or sell-through basis, rather than a monthly subscription model like Netflix. Cable operators' OTT content will help keep some subscribers loyal, and VOD services will continue to grow dramatically.

- "The cable companies are benefiting from OTT because they have apps now as well and you can watch cable product on your iPad. That's going to grow."
- "The growth of video on demand has been pretty dramatic. ... People are getting used to it because movies are more available and convenient. I thought they'd be resistant because of the cost, but people have accepted adding another \$5 or \$10 [to their cable bill] for a couple of movies."
- "I think VOD is going to continue to grow because the technology is going to improve. It's gotten better, but there's a long way to go. The marketing and interactivity need to get better."
- "Cable is growing. It's much more consumer-friendly than it used to be."
- "Cable companies offering OTT content is just going to continue to fragment the market. I do think it helps to keep their subscribers loyal, but I don't think it grows the market much."
- "I don't see a studio like Sony [Corp./TYO:6758/SNE] creating their own over-the-top model just for Sony products. It's a lot more lucrative and they can reach a lot more customers through an aggregator [like Amazon]. They tried that before in the music business and it just didn't work. ... To have all these different studios offering their own channels, it's not consumer friendly."
- "Studios are [distributing streaming content] through Amazon already. With Amazon, there's a multipronged approach to the business. They have a streaming service, an EST [electronic sell-through] service and a rental service. On the rental and the EST side, there's premium and new releases going through there, and studios are willing to provide that content to Amazon because it's a paper transaction type of model. But if it's a subscription model where you're only paying \$7 or \$10 a month, that's a different animal. You're only going to see older, catalog material."

We know tablets and OTT will

explode rental, but that's not

ownership model. That's the

challenge. We're spending a lot

big enough. We need

of time on UltraViolet.

- "The studios are happy that Netflix is stumbling a little bit. They'd like to see some competition for their products, so Netflix is not so dominant. The studios definitely learned a lot from their dealings with Netflix. They learned they can charge a lot more money."
- "The studios feel real good about distributing content to Apple because of the iPad and because there is no [monthly fee-based] streaming model at the moment. It's all paper transactions."
- "The typical customer can watch a new release on cable, have Netflix for the [older] library content and the hardto-find stuff, and they can use Redbox too for \$1. I think people are using all of those things."
- Independent production house's creative director, partners with Vivendi S.A. (EPA:VIV) for cable and digital distribution Cable companies will have to adopt OTT video because of declining cable subscription rates and shifts in consumer behavior. Cable VOD use is increasing, particularly for smaller movies, and studios will continue to push content onto tablets. Physical TV ownership has decreased.
 - "Cable companies have to figure out a way to compete because people are increasingly getting rid of their cable packages. When they see they can get content on Netflix, Hulu, Roku, it would only make sense for cable companies to figure out very quickly a way to do OTT. ... TV ownership is down because you don't have to own a TV screen. I feel very old watching content on a TV. It'll be interesting to see how many people
 - have canceled their disc subscription to Netflix. I know I did." "There is this frustration with Apple, Amazon, Netflix because it has complicated how we make money. ... It comes down to trying to develop a model to predict profits because everything is changing so quickly. Before, you could project video sales; now you can't. It's just so new. There isn't a history. Five years down the line, we'll have a better picture. The per-unit cost is significantly less. You've lost a big chunk of revenue."

TV ownership is down because you don't have to own a TV screen. I feel very old watching content on a TV.

> Creative Director Independent Production House

- "It seems to me it's in the studios' best interest to adapt and let content onto tablets. Or they risk ending up like the music industry where people try to find other ways of getting content."
- "The story of home video has completely changed. It's really hard to predict how much money a film is going to make. When we look at potential market, we do home video projections and our predictions are often off, because it's very hard to predict."
- "I'm exploring the breakdown between cable and streaming. I think VOD is an interesting way to bring films to people who don't have access to them, and can't get to an art-house theater. But I also think it can be cannibalizing the audience."
- "We do our own theatrical distribution and we've partnered with Vivendi to handle TV and video distribution. Vivendi negotiates our TV, video deals, the on-demand, digital deals. The amount that we can make theatrically is finite. With the video deals, that can go on for a long time. That will continue to bring in money for years to come. We use Vivendi because they have the built in infrastructure and relationships with cable nets, vendors ... and the staff to handle that."
- "Digital distribution is here to stay. The way people watch TV and film is changing. People have Netflix, Hulu, Amazon and go from one to the next on their computer screen. It's just so much easier. You can just stream content on your Blu-ray player or PlayStation. The problem companies are having is how to monetize it. You have Netflix but also Redbox, which is killing the home video business."
- "It's interesting to see a company like Netflix transition into a studio and buy content without going through the middleman. That's just been in terms of TV; it's not clear what that means for film. Hulu is starting to air original content with episodic TV. Who's to say they won't do films? Are you going to spend \$10 a month to get original content through Hulu?
- "It becomes harder for independent movies to get financing. Studios will always make Spiderman and Batman. There are fewer and fewer financiers out there, and fewer independent distributors. Edward Burns is distributing his movie as a digital download on his website. It's following the path music has gone down. Maybe now people will go to theaters to watch big studio movies and use digital downloads for smaller movies."
- "When I think about the networks or the channels I watch, it comes down to maybe 10. A la carte makes sense."
- "It will be hard for studios to begin to do their own distribution if the cable system breaks down. They're just not branded."



5) INDUSTRY SPECIALISTS

All four sources expect more growth in VOD. Cable companies stand to benefit from growth in VOD ad revenue. A large cable industry organization executive said OTT video fits in with consumers' desire for mobility. HBO may create its own stand-alone service. Our second source expects cable operators to succeed in distributing OTT/VOD content themselves because they control the delivery system and in many cases own the content. Netflix will suffer in the long run. The third source said cable companies will develop their own OTT viewing platforms and that cord cutting is over-exaggerated, and that Netflix will be able to secure content rights. Also, Apple will get into the TV game in 2012. TV manufacturer consolidation is likely, placing Sharp in a dangerous position. Our fourth source said large cable operators are well-placed to distribute content themselves but barriers include content owner licensing costs and regional broadcast restrictions. OTT/VOD growth already has benefited HBO Go and Time Warner's AMC and next will help Comcast's NBC Universal and Apple TV.

Executive for a large cable industry organization

As a supplemental service to existing cable customers, OTT video (or TV Everywhere) does feed consumers' desire for mobility and anytime access. HBO may create its own stand-alone service. Netflix and new market entrants are the winners from OTT services. Studios have yet to leverage their libraries of TV shows. VOD remains popular and offers room for revenue growth from ads. Canoe Ventures could improve cable companies' ability to sell ads for VOD.

"TV Everywhere is preserving the existing [cable] model today." "[TV Everywhere] fits within the mobility framework, which is what I want, when I want it and where I want it. I am satisfied by multiple things by Netflix: price, interface, etc. But one of the things that satisfies me is that I can watch it at my convenience. Biggest thing is that it satisfies that consumer urge. Some people look at [Netflix] and think 'price.'

- "The one aspect of OTT that fascinates me ... if you actually subscribe to Netflix and watch it on a regular basis, what you recognize is this is mostly junk. But I'm only paying X dollars a month, and I'll just flip through it, and whatever."
- "Operators' [OTT] offerings ... have tended to be very supplemental and very much tied into the existing models. ... Why would HBO sell [its service] some other way when they're just going to anger their existing clients? Maybe someday they can make just as much money selling HBO Go as a stand-alone service, but how do you get from here to there?"
- "Every studio has decades of television shows that they're not doing anything with. I don't understand why the studios don't leverage the depth of their libraries. It would take money. They'd have to dig out the masters and convert them ... but I am a little baffled why the studios aren't experimenting with that."

I don't think that's it. We're feeding that [desire for] convenience and mobility."

- "I'm always surprised by how light the ad load is [on VOD]."
- "People have totally overlooked the VOD ad insertion [initiatives that are] part of Canoe. Flexibility's always been a huge issue."

Netflix and watch it on a regular basis, what you recognize is this is mostly junk.

If you actually subscribe to

Executive Large Cable Industry Organization

I'm always surprised by how light the ad load is [on VOD].

> Executive Large Cable Industry Organization

Dan Rayburn, executive vice president of the Streaming Media blog

Cable operators are expected to succeed in distributing OTT/VOD content themselves because they control the delivery system and in many cases own the content. To date, true OTT does not exist beyond Sling Media's Slingbox. Comcast and other large MSOs and content creators/studios are immediate winners, but Netflix would be a loser in the long run because of slowing growth and escalating licensing costs. Cable cutting is a nonissue. MSOs continue to gain customers overall, demonstrated by increasing revenues and consumer-accepted rate hikes. OTT/VOD streaming will supplement but never replace cable.

- "Comcast and all of the cable companies will be successful in distributing their own OTT content. They are the ones that in many cases own the content, and they have the delivery system. That's why Netflix will be toast in the long run. They don't own the content and they can't afford to compete."
- "The cost of content is always going up. Netflix spent \$1.5 billion last year, and they will spend \$3 billion next year. At the same time Netflix growth is slowing. The real question is are they still growing fast enough to pay for the content?"

- "One thing that is amazing about Amazon: they have buying power and they have the size, the reach and the subscriber base. In the seven months since they launched, they have gotten licensing rights to 12,000 titles. It took Netflix four years to get 20,000 titles."
- "I don't think Amazon will eat into cable's market share at all. They have no sports, and there are local blackouts. I don't believe they are taking time away from cable just from different devices. But the consumer is still watching the same content from the same content owner."
- "All of a sudden Netflix has ten competitors with a subscriber base for OTT services that they did not have before."
- "People are just shifting their viewing habits from one screen to another. When I think of OTT, it is content you get on top of the cable service that you cannot get anywhere else. Now you are mostly watching the same content on the TV or, if you want, on another device. You have shifted your viewing from one device to another. If you want to show content on your iPad, you can't do it outside of your house. Cable companies have actually set up the wrong expectations for TV Everywhere. It doesn't exist. And you'll

notice that not too many people are still talking about TV Everywhere. True TV Everywhere is Slingbox."

- "Movie availability is increasing. It's always increasing. The studios will make their content available to anyone. They would have no issue with distributing to Amazon or Apple. They can make more money licensing to 10 different operators or services than to five. The content providers can't do it themselves. They don't have the reach, they don't have the services, and they don't have the devices or infrastructure. The studios love it because they are getting checks from everyone."
- "The pricing of OTT/VOD has not changed at all in the last six months, and I don't think it will change."
- "The media likes to compare OTT to cable, but this is an unfair comparison. Netflix and Hulu are not trying to replicate the cable experience. They offer no live news, no live sports. If people cut the cable, it is not to go to an OTT service, it's to save money in the short term."

Comcast and all of the cable companies will be successful in distributing their own OTT content. They are the ones that in many cases own the content, and they have the delivery system. That's why Netflix will be toast in the long run. They don't own the content and they can't afford to compete.

> Executive Vice President Streaming Media Blog

- "All of the cable companies are gaining customers, even the ones that are losing customers [regionally] because their losses are so small and market-specific. Cable does not have a problem with its core business. They continue to raise rates; they continue to increase revenue. Comcast offers Xfinity TV as a value-added service, but people do not sign up and pay. Verizon FiOS and [AT&T] U-verse are not available in many areas. ... One is not replacing another and Netflix is not replacing cable."
- "The cost of ad-spend for online commercials continues to increase. Maybe online is gaining ad share to a certain degree, but the rate of growth is too small to matter. Most consumers are not replacing cable for Internet viewing. Even if cable loses 200,000 subscribers this year, that is probably equivalent to two-tenths of 1% of the overall cable subscribers. It just doesn't matter."

Product designer for an OTT hardware developer

Cable companies soon will move to produce a full OTT platform. These companies will benefit from their cash position and strong customer relationships, but the expanding market will have room for others like Netflix. The source said Netflix will be able to secure content rights, and is undervalued. Apple will get into the TV game in 2012. TV manufacturing consolidation is likely, placing Sharp in a dangerous position.

- "I don't think any cable is doing that much with OTT. They will soon. It's still too early. I do think VOD will increase on cable. I guess the way I look at it is that cable companies are in an exceptionally good position. They're well positioned for the future. They're underappreciated in terms of their cash positions. Their infrastructure is so strong, and their relationship is so strong with their customers. At the end of the day, the cable companies can do more than most other companies around them can."
- "I don't think it's too soon or too late for anybody to be significant in the space. I could see every cable or TV company adopting OTT. I could see Amazon and Netflix massively expanding their offerings. ... I don't see much real cord cutting. It's too soon for this to be really significant. Eventually cable sub rates will fall, but that's not in the short term. The Internet has not yet disrupted TV in any way."

- "Historically, what's happened in any other industry, sooner or later, the powers come to bear on distribution of resources, power and control. Consumer want more access to do more stuff and prices drop, offerings go up. We haven't come close to that happening with TV, video, the Internet. TV is TV, and you can buy a bunch of stuff online OTT. If we agree that that's kind of the case, we have a ways to go before we are at a substantial point of differentiation."
- "Both cable and Netflix/Amazon are in good positions to distribute OTT. Netflix is still really the only game in town with a good sweeping service for consumers. Until we see some other companies do some good things, I can't see a clear winner."
- "I don't think any of the challenges Netflix has faced are real. There's a lack of understanding on Wall Street on what Netflix is all about. Wall Street thinks they lost subs and now they're doomed. They're clearly not doomed. I actually think Netflix is massively undervalued. I personally bought more Netflix stock fairly recently. I don't think securing rights for them in the future will be a problem. They have 20 million customers."
- "With regards to Netflix, I think the company is being looked at through the wrong lens. I don't think they're going to have a lot of trouble getting rights worked out. I think the biggest challenge they're going to have is there's a window of time now where other companies from Blockbuster to Comcast are going to start catching up. What other

Apple is definitely building a TV. When they do that, there'll be a shockwave across the industry. I think it'll cause a bigger whiplash effect than the iPhone did to mobile. I think in 2012 we learn about an Apple TV, if not a new product. Apple doesn't let rumors go on without knocking them down.

> Product Designer OTT Hardware Developer

- company for \$9 a month can offer the product Netflix offers? All some other company has to do is copy them."
- "I think the Kindle Fire is important, but I don't think they built the right product. I think gen-2 Kindle Fire will be a lot more interesting."
- "I think everyone betting that Siri for television is a solution is a big mistake. Apple is definitely building a TV. When they do that, there'll be a shockwave across the TV industry. I think it'll cause a bigger whiplash effect than the iPhone did to mobile. I think in 2012 we learn about an Apple TV, if not a new product. Apple doesn't let rumors go on without knocking them down. I think it's a traditional TV with an Apple TV built in. I'm exceptionally bullish on Apple. They're the only company in tech that understands the market and has the experience. What's finally happening is that people realize Apple isn't just clever design or marketing, it's end-to-end product experiencing. There just isn't enough talent out there to compete with Apple in that game. If the market for TV products starts to dwindle, Apple will do to [consumer electronics manufacturers] what it did to Nokia. I think Sharp is the one that will go first."

Founder of a leading digital media consulting firm; repeat source

Large cable operators are in a good position to distribute content, but barriers include licensing costs and regional broadcast restrictions. Comcast's NBC Universal and Apple TV are strong contenders, but HBO Go and AMC already are benefiting from OTT VOD growth. No one company has gained new paying customers as a result of OTT/VOD

offerings or from Netflix. Cable viewing remains strong and steady.

"We recently met with Google executives about media consumption. Despite the explosion in Internet streaming growth, they have found that TV viewership holds steady. The 100-plus hours that people might be using to view content is achieved by multitasking with a number of devices. This came from Google's advertising unit, which was trying to convince people that you need to advertise ... on the Internet and on TV. It's not a matter of shifting one to the other, and they had the numbers to validate. Their study showed there is not a clear loss in TV viewing despite the exponential growth of viewing on the Internet. And that explains why, despite the growth in web-based opportunities and the growth in OTT boxes, there is still a huge demand for cable. I have never seen cord cutting and the study explained why."

"The cable operators are in as good a position as anyone to benefit because they have six decades of experience distributing content. The

There is not a clear loss in TV viewing despite the exponential growth of viewing on the Internet. And that explains why, despite the growth in webbased opportunities and the growth in OTT boxes, there is still a huge demand for cable. I have never seen cord cutting and the study explained why.

Founder Leading Digital Media Consulting Firm



- content has not changed. The way people are viewing it has changed."
- "Some have generated a lot of attention and interest, like HBO Go, but there are no statistics to demonstrate that it has translated into new customers."
- "I don't know of anyone who has jumped ahead in the last six months with a faster rate of movie offerings. It has stayed the same and as a consequence you see prices staying consistent across all platforms."
- "Those in the best position to expand their OTT content would be the largest players, cable companies such as Comcast, which is making a play to offer to offer the content themselves."
- "Licensing and regional broadcast restrictions present a challenge. HBO Go has done a good job of it, and AMC has done a good job of it in both creating original content and making it available. Comcast has been very aggressive in this area for example in rolling out lots of iPad apps. Time Warner also has done a good job of enabling access."
- "The consumer would like to see them offer a more open platform, especially to non-cable subscribers and customers. They want to know 'Why, if I want HBO Go, do I also have to be an HBO subscriber?' How do you address this issue? It's a little like biting the hand that feeds you. Apple TV has done well with this by providing content [fee-based] on top of offering TV."
- "The studios in dealing with Netflix have learned they can get more with Apple. Amazon has some of the same problems as Netflix because you can buy specific movies [content] as opposed to having access to a la carte."
- "Movie studios and content owners will be more inclined to deal with Amazon. Amazon has enough market power and a built-in audience. Netflix had issues over getting the premium content, but the problem was about the price, not about getting the content."
- "The Apple box is great."
- "There has been some talk in the industry about premium VOD access with the studios' releasing DVDs under a different window and charging for it. I have not seen anyone break out on such an offering but it would enable operators to get ... movies/DVDs earlier than the current release window. The customer would then pay a premium to see it. ... If I could pay \$20 for a movie six weeks after its first-run release to view at home, it starts to sound like a good bargain."
- "I just got an email from Boxee announcing a new service called Boxee Live. It would still require a box, but the new box would incorporate a tuner so you could pull any signal that comes into the house. ... That would address one of the challenges to the boxes, which was getting live programming such as live news or live sports."

6) OTT CUSTOMERS

Four of these five customers cut cable subscriptions because of cost, and the fifth source is considering cutting the cord. Sources have been satisfied with cost and availability of content through Hulu, Netflix, Roku and other OTT providers. Sources use a combination of OTT options. Two voiced an interest in cable companies' a la carte services.

34-year-old in Seattle

This former Comcast subscriber cut the cord earlier this year because of cost. He gets his TV and movie content through a combination of OTT options, including a Roku box and Netflix subscription. Cable companies offering more OTT content would not bring him back in the fold, and he does not expect the companies to succeed in distributing streaming content.

- "I can afford cable, but I chose not to because there are better alternatives and it's a bad value. I always felt ripped off every single month paying the cable bill. Dropping the cable package saved me \$75 a month once you take into account the jacked-up Comcast Internet price [by not being bundled with cable]. That's a savings of \$900 a year."
- "I broke even in six months. Since I'm saving all that money, I was able to justify a MLB.tv season pass for \$100 and plan on getting it next year."
- "If I were a die-hard NBA or NHL fan, I would go buy those packages, but I'm not. I wish the NFL weren't so beholden to their DirecTV money and would offer an Internet package, as I would probably spend \$100 just to watch 16 guaranteed Saints games."
- "Netflix and YouTube [LLC] satisfy the kid programming concerns. I basically have an endless amount of content that I can't possibly ever hope to watch, especially with MLB.tv during the summers. All I had to do was a little legwork to get it set up on the front end."



- "I subscribe to Netflix streaming. ... Netflix is a vastly superior option compared to what I had with Comcast. I had four rotating episodes of Dora the Explorer [through Comcast on-demand] while Netflix has four seasons."
- "It was a bit of a hassle to set everything up and it's a bit of a pain to switch sources between the media PC and Roku, [but] I'm very happy [without cable]. I'm saving tons of money."
- "The over-the-air content is the best thing ever. It's uncompressed data, so I can actually see a noticeable difference in the quality versus compressed Comcast. And it's free and 'DVR-able' forever."
 - "Just adding some nicer OTT options at the same price would not drive me back to cable. The only two things that would drive me back to cable would be a drastic price reduction-something in the \$20 to \$25 a month range-or a la carte channel selection, although the prices would have to be reasonable for this. ESPN couldn't be a \$30 channel but more of a \$5 channel. I'm assuming that this would never happen until they're hemorrhaging something like 50% of their customer base."
- "A greater selection of OTT content would not cause me to reconsider [cable] because it's still too pricey for subpar service."
- "I don't think [cable operators] will be very successful [in distributing OTT content] as they are hardened monopolies and not agile, consumer-focused companies. Comcast is a dinosaur compared to Netflix or Amazon."

31-year-old in New York

This former Time Warner customer cut the cable cord because of cost and the availability of content elsewhere. He gets most of his TV content through over-the-air channels and uses Netflix and Hulu for other shows and movies. Cable operators offering streaming content would not draw him back to cable though he would consider buying OTT content if not too expensive and not linked to a bundle or equipment. He believes cable providers' level of success in distributing OTT would depend on a major change in their business model that would involve giving up regional monopolies.

- "The initial decision [to ditch cable] came from a twofold realization: First, most of the content we were consuming was available elsewhere legally, and we didn't really gain much value from the content that we would lose out on. Second, cable, along with satellite, is far more expensive."
- "The main plus [of ditching cable] is a total savings of \$200 to \$300 a year. ... The solution required more time to set up and implement, which some might find daunting. The advent of options like Roku probably should make the decision easier for new adopters of OTT."
- "A factor ... was our opposition to local/regional monopolies. The ongoing lack of competition in the cable space—further cemented by the very recent Verizon spectrum license acquisition alongside content deals with cable companies, indicating an end to FiOS rollouts-is lamentable and results in what is ultimately a low-quality and high-cost product. It's not smart to support a bad business model that you believe is anti-consumer."
- "We have a TiVo HD lifetime subscription hooked up to an antenna, and we time-shift over-the-air content. We have Netflix streaming for a good deal of TV and movies. We supplement this with Hulu on my HTPC [home theater PC] that's connected to the TV."
- "For non-sports content that we do not want to wait for and cannot get, we buy from Amazon and either watch through the TiVo or HTPC. For baseball, I have subscribed to MLB.tv-another victim of cable monopolies with absurd blackout restrictions."

Cable companies need to drastically rethink their approach to customers to bring them back to the table. ... Cable's problem is that it sees its biggest weakness as a

It was a bit of a hassle to set

everything up and it's a bit of a

pain to switch sources between

the media PC and Roku, [but]

I'm very happy [without cable].

OTT Customer, Seattle

I'm saving tons of money.

OTT Customer, New York

- "Cable compression of content is lamentable-noticeable even on my 27-inch TV. I also don't like the lock-in to my cable provider."
- "If OTT content [from cable operators] was extremely reasonably priced, required no bundling and could simply be made available without installation or cable boxes, I may consider it."
- "As long as there are more online competitors that don't require archaic and, frankly, terrible cable boxes, cable companies will continue to lose ground to options like Netflix and Hulu."

strength and vice-versa.

- "Cable companies need to drastically rethink their approach to customers to bring them back to the table. The only way to win in the long run is to simplify and use the Internet logically: If I were given a choice tomorrow of subscription on-demand content delivered via Internet from Verizon, Comcast, TWC, Cablevision, Cox and RCN [Telecom Services LLC] and if I can pay a Netflix-competitive price, the real question will be why I'm still with Netflix. Cable's problem is that it sees its biggest weakness as a strength and vice-versa."
- "The insistence on the box and network lock-in is bad for cable in the face of Netflix and Hulu. Cable companies ought to divorce content-delivery from the infrastructure, and sell content nationally to all people connected to the Internet. They can then also sell Internet service to people as a separate utility."
- "Netflix compares very favorably [to cable]. I watch more movies now than I ever did with cable, given that it's an all-you-can-eat subscription, not a per-item service like most on-demand options."
- "PC/OTT boxes like Roku and mobile devices of all sizes [will have the most growth]."

43-year-old in Connecticut

This source has canceled his Comcast service because of cost and is satisfied with using Hulu Plus, Netflix and other OTT providers for TV and movies.

- "We were using Comcast—phone, cable and Internet—and paying about \$175 per month. We cut off the cable television and home phone for financial reasons. With only one income in the house, we had to economize."
- "Now we use Hulu Plus, Netflix and an antenna for local stations. We kept Comcast Internet service and increased the bandwidth on it, paying about \$95 per month."
- "We can now watch most any show we usually watch, sans a few, at any time. We just log into Hulu Plus, and away we go. Movies come from Netflix, and we get them quickly and easily. Occasionally, we'll use Redbox for very new titles. But to sit down and watch TV, we don't do that as much as we used to."
- "I get the MLB.tv package for the computer, which worked great last year."
- "The downside [to OTT] comes in search for content we want to watch."
- "I believe cable companies overcharge for service. I believe content, equipment and service can and should be much cheaper. The profits cable companies earn tell me that they could and should be looking at how to drop prices to appeal to the masses."
- "Today's economy has people cutting the cord all the time. In fact, now that I have Hulu Plus, I can watch TV on my iPhone. Same for Netflix."
- "We have both [DVD and streaming from Netflix]. I think the streaming service needs some improvement, but the DVD service is great."
- "I believe Hulu Plus is a growth business, with many networks going to an online distribution setup soon. I don't expect them to charge as they will be impacted by the same economic issues cable companies are feeling."

Man in his early 40s, New York City

This source has been please with this decision to cut cable a year ago. He bought a Boxee to transfer Web content to the family's TV.

- "Time shifting was the cable company's own demise. Once we got in the habit of waiting a week or even a few days for a show, there was no reason not to shift back and watch it for free online. We already had the broadband connection."
- "I would like to think the cable companies are in trouble here. They became enormously rich providing terrible monopoly service. We may be in the minority, but at least we're free of their monthly bill. The more of us there are, the merrier. For everyone else, it's their loss."
- "It's not rocket science. We save \$70 a month and maybe spend \$5 on Hulu. The rest is a la carte Netflix or iTunes. We'd have to watch a lot of television-too much-to recover that \$65 every month."
- "We are those people who cut the cable. We are real. Boxee is great, but at this point we probably won't go for the live version. All we wanted was a hardware solution to take the streaming Web files to our wall display."
- "We are unlikely to migrate from Netflix back to Time Warner or Comcast."

Time shifting was the cable company's own demise. Once we got in the habit of waiting a week or even a few days for a show, there was no reason not to shift back and watch it for free online. We already had the broadband connection.

OTT Customer, New York City



42-year-old in Connecticut

This source is considering dropping cable because of cost and time lost watching TV. He is exploring an OTT setup such as Apple TV, with subscriptions to Netflix and online sports packages. Still, he is concerned about the reliability of streaming content. More VOD and OTT options from his cable company would not be a draw unless overall costs dropped.

- "I am currently a subscriber to Charter Communications. I have a bundle package—phone, Internet, cable—and we pay about \$130 per month."
- "I'm considering dropping cable for two main reasons: One is I want to save money. The other is that with cable, I am not efficient with my TV watching. I sometimes flip around aimlessly. If I changed to a situation where I could just order or view what I want to see, then I'd be purposeful about my viewing."
- "I'm not sure how I will solve [getting content without cable] yet: Apple TV or some other Internet situation, maybe with a subscription to Netflix, NFL, MLB.tv, etc. My concerns are mainly focused on two things: Will I really get to see what I want and how reliable will it be for me?"
- "[More OTT and VOD content would be attractive] only if the cost is less, which I doubt it will be. What I think should be the future of cable is a total a la carte system. You get only the channels you want, and you pay independently for those channels. ... I am sure this is not something the cable companies want to do, but I think if enough people leave them for online viewing, for precisely this reason, then they'll be forced to adapt."
- "I'm sure [cable operators] will have no problem working [OTT] out. It's just a matter of adopting a new business model. They better be [successful with OTT], or they're ultimately history."
- "I think mobile devices are the future. They are easier to transport than even laptops, and the mobile devices are becoming so crisp and powerful. ... I do expect the government to start to get more involved as more and more commerce takes place online."

Secondary Sources

In reviewing secondary sources, we learned that Verizon and Coinstar's Redbox together will be testing a subscription-based TV and movie streaming service in April. Media executives now are considering separate packages for sports programming in an effort to retain cost-conscious customers. Such a business model change would foster OTT growth. An industry blog discussed cable companies labeling themselves as broadband companies as well as the future of metered broadband. A Nielson study found TV ownership down year to year, particularly among 18- to 49-year-olds. Finally, Verizon plans to offer a streaming service, and Netflix and HBO each spends \$1 to \$2 billion on content per year.

Dec. 7 TechCrunch article

Verizon is planning a partnership with Coinstar's Redbox to debut a TV and movie streaming service in May, with a beta launch in April. It will be available on a broad variety of platforms, including Apple's iOS, Android, Google TV, Xbox and Roku. The service will offer multiple tiers of monthly pricing. Talks with content providers continue, but the service will not be a guick-release channel for new movies or live TV.

http://techcrunch.com/2011/12/07/verizon-and-redbox-planning-major-partnership-for-early-2012-launch

- "Our source says that Verizon is in fact planning a major partnership with RedBox ... They aim to debut a TV and movie streaming and download service this coming May."
- "The service is called Project Zoetrope internally, and will be a subscription, streaming, and downloading service for TV and movies that will be available on a broad variety of platforms: they plan support for iOS, Android, Google TV, Xbox, Roku and other streaming boxes, and browsers. 'Set-top boxes,' by which they mean more traditional digital cable boxes, are not supported; this is an Internet service, not a broadcast service."
- "Local storage of video will be enabled for mobile devices and tablets."
- "Launch is planned for May 28th, with a beta starting in late April. Pricing is expected to be monthly and creditbased, e.g. \$5.95 per month for 6 credits, which could be used to rent X movies or Y shows. There will be several tiers and some will include physical disc rentals, and of course there will be ways to purchase more shows if necessary."

Dec. 6 The Wall Street Journal article

Some media executives are acknowledging that a separate tier of service may be needed for pricier sports channels in order to lure younger and more cost-conscious consumers. Concerns over ESPN's rising programming costs are forcing studios to reconsider their business models. A business model change could foster OTT growth. http://online.wsj.com/article/SB10001424052970204083204577080793289112260.html?mod=ITP_marketplace_ 0

- "Dissent is growing within the media business over the rising cost of sports programming, even as the NFL is negotiating new agreements that are expected to boost broadcast networks' fees by 60% to about \$3.2 billion a year."
- "Such sharply rising costs ... are producing a vocal backlash from some media companies, which are afraid customers will drop services as prices escalate."
- "On Monday, Liberty Media Corp. Chief Executive Greg Maffei ... said the cost increases create an opportunity for alternative TV offerings that could undercut the way cable channels are packaged—as bundles of different programming."
- "After initially dismissing the likelihood that consumers would 'cut the cord' by turning off their pay-TV subscriptions, media executives are starting to acknowledge the need to sell smaller bundles of TV to lure younger, and more cost-conscious consumers."

After initially dismissing the likelihood that consumers would 'cut the cord' by turning off their pay-TV subscriptions, media executives are starting to acknowledge the need to sell smaller bundles of TV to lure younger, and more costconscious consumers.

The Wall Street Journal Article

"In particular, some executives say that the pricey sports channels like ESPN might be better off on a separate tier of service, to make TV more affordable."

Dec. 6 Reuters article

Verizon plans to launch a stand-alone service for customers to stream movies and TV shows. The package is expected to be limited in scope and focused on movies. Netflix's contract with Epix will expire in September. Netflix and HBO each spends between \$1 to \$2 billion per year, setting the bar for content spending. http://www.reuters.com/article/2011/12/06/us-verizon-paytv-idUSTRE7B527L20111206

- "Verizon Communications Inc plans to launch a stand-alone service allowing customers to stream movies and television shows over the Web."
- "The package of programming would be limited in its scope. ... The focus would be packages of movies similar to Liberty Media's Starz Play and Viacom's Epix or could involve children's programming from a partner such as Walt Disney Co or Viacom."
- "Epix's current exclusive online-streaming contract with Netflix runs out next September, allowing other services to negotiate with Viacom for Epix's package of movies from Paramount, Lions Gate and MGM studios."
- "'HBO and Netflix both spend between \$1 billion and \$2 billion a year on content. If you want to compete with HBO and Netflix, you better commit to multiple-year spending between one and two billion,' Hastings said."

Dec. 1 Brightcove Community blog post

Cable companies are negotiating long-term deals that include all current and future distribution technologies. Metered broadband is inevitable as cable companies already are shifting their focus to broadband companies. http://blog.brightcove.com/en/2011/12/what-cable-doing-

wrong?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed:+bc/all+%28Brightcove+Blog+%28EN%29% 29&utm_content=Google+Reader#.TuEDLtc4390.twitter

- "2011 was a pivotal year where we saw that the future is not tied to a set-top box or a single device."
- "But from a viewer perspective ... content libraries are still limited. ... That is the single biggest problem that they face."
- "There are several problems I am hearing about:
 - Cable providers are seeking long-term, very long-term, distribution deals that include all current and future distribution technologies. Smart approach, longer negotiation. Now that David Boies is finished with the NBA, maybe he can help.
 - Programmers are hesitant to run older content on on-demand platforms including TV, PC, or iPad, because they will incur royalty charges that they don't want to take on for an unproven model with little



additional revenue ... at this time. You can see this on the new platforms as well. Try to watch Always Sunny via Hulu on a Roku box—even with a Hulu Plus subscription. You can watch on the PC, but not the Roku box. What's the difference?"

- "Time Warner Cable has already started calling itself a broadband company, not a cable company. And metered broadband is only a matter of time."
- "If there is any actual cord shaving, cord cutting or cord 'nevering' going on, I believe that it is choice and control that is driving this shift, not dollars. Viewers demand and expect unfettered access to everything they want to watch whenever they want it, and for that content to fit into how the Web works."

Time Warner Cable has already started calling itself a broadband company, not a cable company. And metered broadband is only a matter of time.

Brightcove Community Blog Post

• "For distributors the loss of TV revenue may just really be a shift in revenue to broadband. For programmers this change could be catastrophic in the short term."

Nov. 30 Entertainment Weekly article

The number of TV sets in the households of 18- to 49-years-old is expected to decline 2.7% in 2012, and the overall number of households with a TV set is expected to decline by 1% in 2012. http://insidetv.ew.com/2011/11/30/tv-ownership-declines/

- "According to Nielsen's annual 'Television Audience' report that was released this week, the number of households with a TV set will decline. The rising trend of TV ownership has been leveling off in recent years, and now the number has dropped from 115.9 million homes in 2011 to an estimated 114.7 million in 2012. As TV Barn pointed out, that's a 1% decline despite the number of households rising."
- "TV ownership among the key adult 18-49 demo also declined, and even steeper (down 2.7%— a downtrend that started to a slight degree in 2010 and then accelerated this year). Plus, the percentage of homes without a TV is at the highest level since 1975 (3%, up from 1% the previous year)."

Next Steps

Blueshift will assess changes in both the cost and quality of content that studios release to Netflix, Amazon and Apple. We will monitor announcements made by Comcast and other major cable companies at CES 2012. We also will follow developments among consumer electronics companies regarding mergers, acquisitions and potential partnerships with cable companies. Finally, we will gauge developments in OTT device standardization and in movie studios' distribution ownership models, including UltraViolet.

Additional research by Carolyn Marshall, Scott Martin, Seth Agulnick, Adam Lesser and Mari Silbey

The Author(s) of this research report certify that all of the views expressed in the report accurately reflect their personal views about any and all of the subject securities and that no part of the Author(s) compensation was, is or will be, directly or indirectly, related to the specific recommendations or views in this report. The Author does not own securities in any of the aforementioned companies.

OTA Financial Group LP has a membership interest in Blueshift Research LLC. OTA LLC, an SEC registered broker dealer subsidiary of OTA Financial Group LP, has both market making and proprietary trading operations on several exchanges and alternative trading systems. The affiliated companies of the OTA Financial Group LP, including OTA LLC, its principals, employees or clients may have an interest in the securities discussed herein, in securities of other issuers in other industries, may provide bids and offers of the subject companies and may act as principal in connection with such transactions. Craig Gordon, the founder of Blueshift, has an investment in OTA Financial Group LP.

© 2011 Blueshift Research LLC. All rights reserved. This transmission was produced for the exclusive use of Blueshift Research LLC, and may not be reproduced or relied upon, in whole or in part, without Blueshift's written consent. The information herein is not intended to be a complete analysis of every material fact in respect to any company or industry discussed. Blueshift Research is a trademarks owned by Blueshift Research LLC.