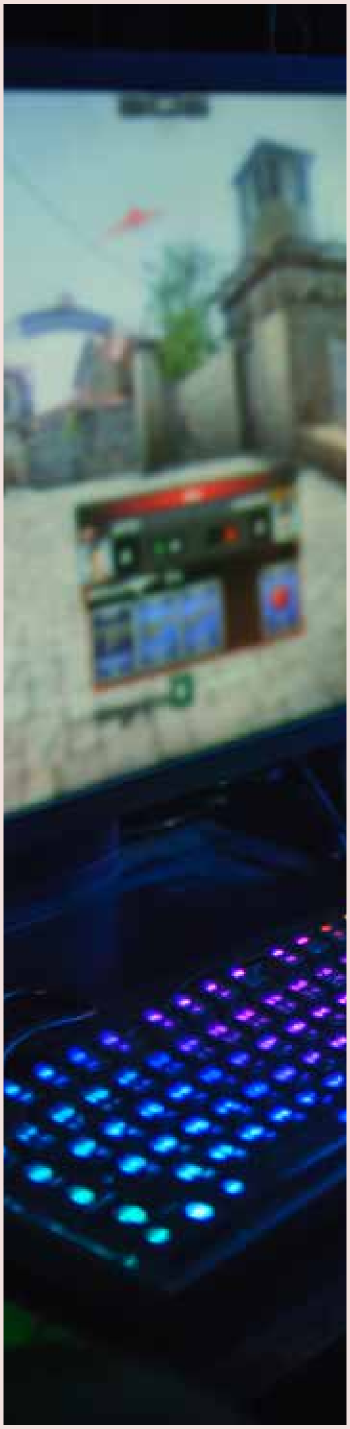
CASE STUDY



VIRTUAL MULTICHANNEL VIDEO PROGRAMMING DISTRIBUTOR:

THE GAME, PLAYERS AND THE PLAYING FIELD

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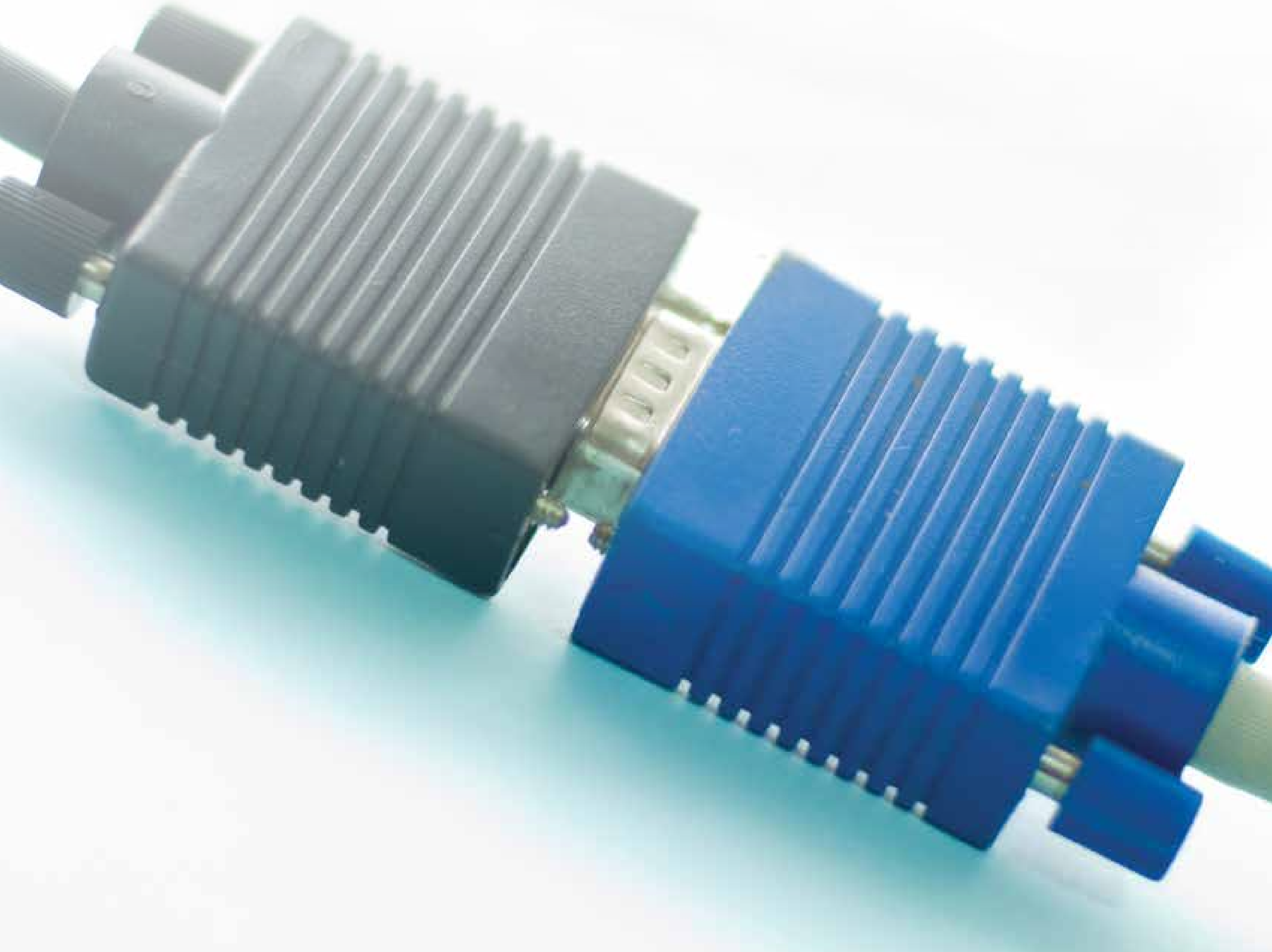
Executive Summary

The emergence of over-the-top (OTT) technologies and the evolving bandwidth efficiency of network providers have created a platform for a new era of video service delivery that completely de-couples the service provider from the network provider.

A Virtual Multichannel Video Programming Distributor (V-MVPD) can offer a broad range of premium video content as any other Cable MSO or a video service provider over the Internet, but without having to own any network infrastructure. Today, OTT players like Netflix, Amazon Prime and Roku are the closest comparison for V-MVPD. They offer On-Demand recorded content and a selective set of premium content. However, what is missing today is the ability to make available a wider selection of premium linear content as offered by cable providers that will make these players truly a V-MVPD.

The technology behind V-MVPD has been proven by many OTT players and by NBC Universal's live broadcast of 2014 Winter Olympics, Sochi. However, the current broadcast ecosystem and the content agreement with programmers would play a key role in determining the widespread adoption and success of a V-MVPD. We will examine V-MVPD in the context of the broadcast ecosystem, the different players, challenges and opportunities for the incumbent service providers.



How does a Virtual-MVPD work?

A Virtual MVPD operates in the same way as an MSO by acting as a content service provider, without any constraints of directly owning the network infrastructure for content delivery. They

1. Sign up content distribution agreement with multiple providers.
2. Host the content for streaming via 3rd party internet.
3. Provide a streaming device at the customer premise to receive the content securely. Some of them pre-integrate this with TV manufacturers.
4. Stream the content through customer's choice of broadband provider.
5. Bill the customer on a subscription/ transaction basis for the content

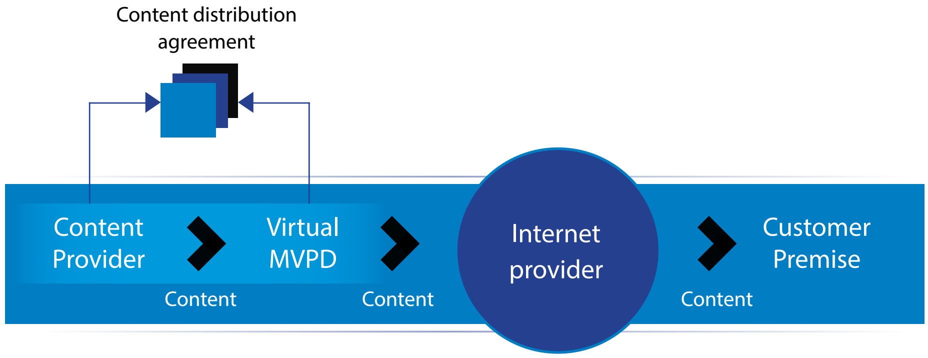


Figure 1: V-MVPD

The key attributes that will differentiate a V-MVPD from the conventional providers and the current OTT players are:

- **Offer all under one roof:** Premium and linear content on the first air date or live, video on demand (VOD) and digital video recorder (DVR)
- **An immersive and unified user experience:** Provide the ability to lay out TV guide and online content side by side and present a holistic user experience. This will be a key contributor to transform video watching from a passive to an active user experience
- **Ability to offer unbundled content,** i.e., à la carte offers that the customer can pick and choose
- **Service federation** with leading OTT players like Netflix and Amazon Prime under the same service. This will enable access to the original content created by these players on the first air date.
- **Attractive price point** as compared to the conventional providers

The Broadcast Ecosystem

The key players in the broadcast ecosystem today are the Content providers, Service providers and the Customers. Let us analyze V-MVPD from the context of these players.

From the Content provider perspective, invariably they could reach most of the households in the United States through one or the other service provider, and it doesn't matter who pays for the content as long as some one pays. It is not much of an incentive, unless they could reach potentially new customers.

But with V-MVPD, they could attract the "cord-nevers" — the broadband-only subscribers, and additionally there is an increasing set of travelling professionals who would like to carry their content (or subscription) where they go and just pay for what they watch.

For Service providers, they are already losing their video subs to the likes of Netflix and other OTT services. More than a choice, the state of affairs with OTT would eventually call for the service providers to become a V-MVPD only to take a prudent first step before it is too late.

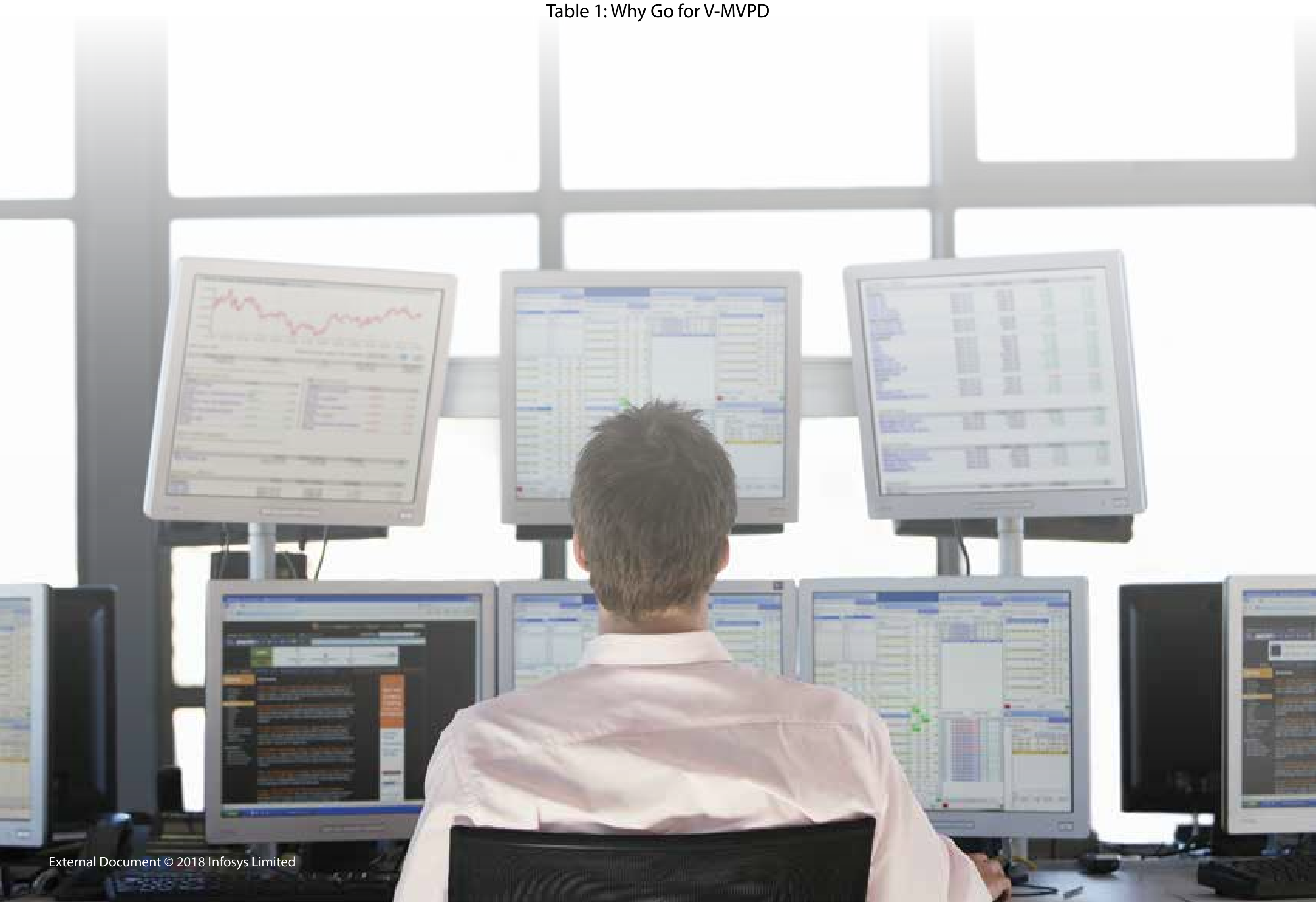
Moreover, no one else in the ecosystem is better positioned to grab the first-mover advantage than an existing service provider.

For the Consumer, it is value for money! Eventually, the competition would drive the subscription price lower.

Ideally, all the parties in the content food chain get to eat a pie or two by participating in the V-MVPD game.

MSO	Content Provider	Consumer
■ Gain access to National footprint ■ Retention of its broadband customers and probable upselling for high speeds	■ Yet another revenue stream ■ Can reach broadband only customers	■ Out-of-the-box option that is not tied to a standard boutique of channels ■ Pay for what you watch and nothing more

Table 1: Why Go for V-MVPD



The players and how they stack up

With no requirement to own a network infrastructure, many aspirants are there to spawn the V-MVPD service. Here, we try to make a competitive analysis of these players.

a. The networks/content providers

Disney, Viacom, HBO and the likes fall in this category. They are at the top of the value chain since they own the content and naturally wield a good muscle power to control the entire ecosystem.

Successful attempts have been made by services like HBO GO, but in reality, there are practical issues:

- Content providers are used to getting a steady income from the service providers without any hassle so far. But with a service like HBO GO, they need to get into the nitty-gritty of billing individual customers directly, provide customer support and set up a back office for other operational support such as authentication. Add to that, churn in customers resulting in an unpredictable revenue stream.
- Imagine a situation where every content provider offers such a service to reach the customers directly. A consumer would then have to individually subscribe and pay bills to multiple providers to get a set of channels.
- A plethora of devices gets introduced ever year, and there is huge set of variables associated with them (e.g., the OS, form factor, resolution, etc.). Any direct service offering like HBO GO would have to take into account a continued support for all these devices that are currently present and are about to emerge in the future. Today, it's a non-issue for the content providers, since it's taken care by the service providers for them.

b. Incumbent service providers

All the MVPDs like Comcast, Cox, AT&T, Verizon, and DirecTV are the middlemen between the content source and the consumers. While so far, invariably every video subscriber was hooked into one of these service providers, the emergence of OTT players like Netflix, Roku, etc. has broken that business model by offering OTT content.

One of the key advantages for the service providers is that many of them own content themselves. In other words, they are a combination of content owners as well as service providers. For example, Comcast has stake in NBC Universal and Warner Group owns HBO. On one side, this gives them a head start, and on the other side, they can hold this as a trump card preventing competitors to succeed.

c. OTT players

These are players like Netflix, Hulu, Amazon Prime and Roku. Their revenue model is subscription as well as transactional. Most of these players today offer VOD and non-linear content along with addition of services like HBO GO through online streaming. Realizing the importance of prime content to succeed in this game, many of these players are investing in producing original content. Netflix's House of Cards and Orange Is the New Black and Amazon's Alpha House are drawing good attention and reviews. It is to be noted that the leading OTT players are moving toward the billion dollar mark on their annual spends for original content production, if not already hit.

These are the niche players that are attempting to break into the V-MVPD space or rather acting as a catalyst for the V-MVPD space to evolve.

The advantage is they have the required infrastructure in place and they have mastered the art of providing quality content to customers via Internet.The recent demonstration of 4K content streaming by Netflix is a testament.

However, the problem is the inability of any single player to get into agreement with multiple content providers to provide an offering to rival the existing service offering from an incumbent service provider. This quashes the possibility of these OTT players emerging out as a top V-MVPD to take the incumbent service providers head-on, but they can create their own space targeting the broadband-only customers and other cost-conscious consumers with competitive pricing.

d. New players

Any aspirant could be considered as a new player. An example is Intel's effort with its OnCue platform to become a V-MVPD.

In a tightly coupled broadcast ecosystem, it appears to be extremely difficult for a new entrant to create an impression and remain successful as a V-MVPD. Intel selling its OnCue platform to Verizon is an example. It would at least require partnering with one of the three players to be successful in this game, apart from being a cash cow!

Challenges

- Negotiating content agreement with providers. This will determine the price point for the end customers and eventually success.
- Recognizing the significance of content ownership, most of these new players would produce original content. In order to maintain the competitive edge, these will stay exclusive to each player or at the most, there would again be divisive groups that join hands. Eventually, the customer is again left to wonder how to get all his/her favorite shows under one roof. Well — back to square one.
- Reluctance from content providers to sell a-la-carte channels (vs bundles). Today the service providers have to buy a bundle of channels to get, say a premium sports channel. Content providers need to have an incentive on top of protecting their existing revenues, if they were to offer à la carte deals.
- Ensuring the best QoE, since the underlying network is third party. Given the state of affairs, a V-MVPD would have to set aside a bulk of spend to the ISPs to get a preferential bandwidth for streaming content.
- Ensuring net neutrality (almost every internet provider is also a service provider). Figure 2 refers to the comparative ranking of ISP speed index published by Netflix on a monthly basis.
- Potential competition from other service providers

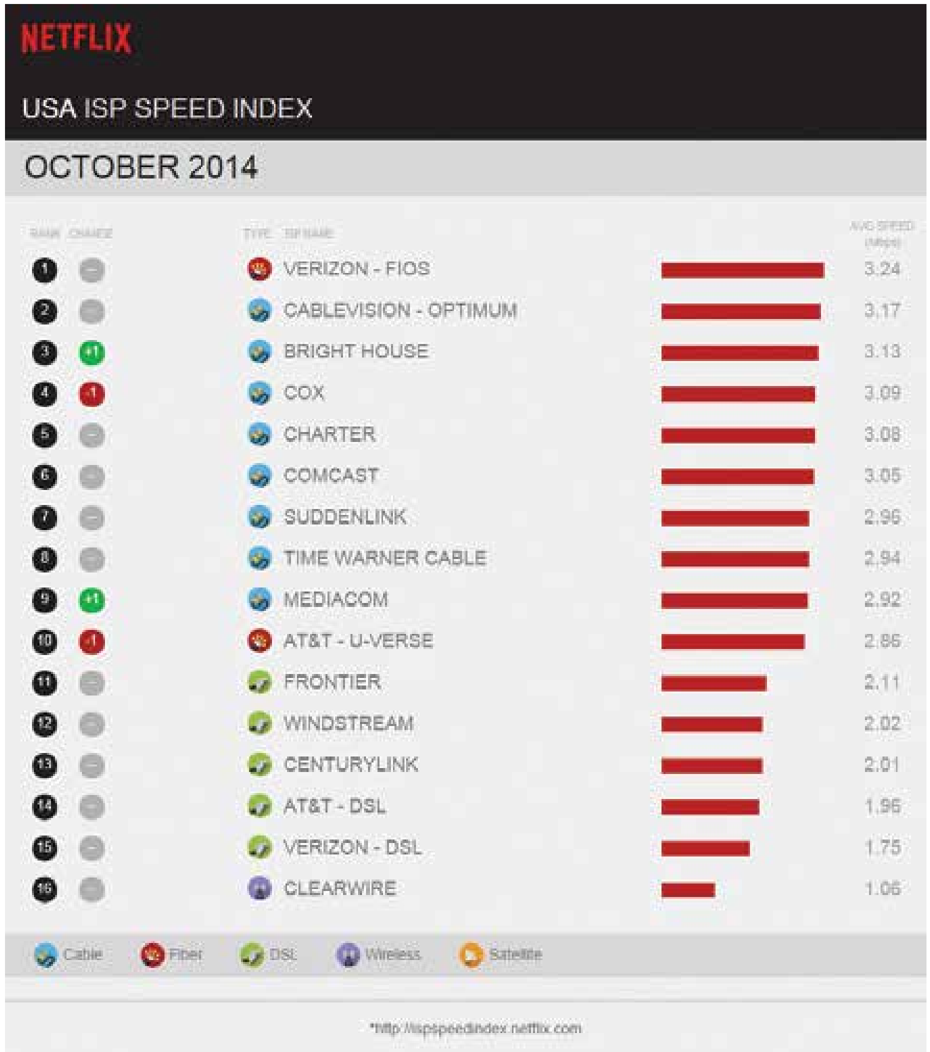


Figure 2: Netflix USA ISP index

Verizon purchases Intel **OnCue** project | ZDNet
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Jan 21, 2014 - **Verizon** has agreed to purchase assets of Intel Media, a division that focuses on Cloud TV products and makers of the **OnCue** online television ...

Dish, Disney reach carriage deal with streaming options
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What **Sony's** internet TV deal with **Viacom** means
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Aug 16, 2013 - **Sony** declined to comment, and **Viacom** didn't respo
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AT&T, **Chernin** set sights on streaming video - Apr. 22, 2014
money.cnn.com/2014/04/22/technology/att-online-video/
Apr 22, 2014 - For **AT&T** and **Chernin**, the unnamed venture is the continuation of a business relationship that blossomed last year, when they jointly tried to ...

Is the time right?

There had been some attempts on the V-MVPD space in the recent past by some prominent players though not greatly successful yet. So, is now the right time? ... At least the recent action in this space seems to indicate so.

- Numerous attempts and groundwork on for the past 3 years including major players to become V-MVPD, though not much support from the program owners till late last year. It is evident that a successful V-MVPD story cannot be crafted without the support from the content providers
- Recent deals like Sony-Viacom and Dish-Walt Disney show some positive traction from programmers in the last year and a potential interest to venture in
- Success of HBO GO has given the programmers a taste of reaching the consumers directly
- Increasing spends on producing original content by OTT players

While it may not be a complete set of program line up, but a subset of premium programs are sure to make it via the virtual route pretty soon, if not already. It is better for the MSOs/service provider to enter the space while it's nascent, rather than being forced out of competition

Advantage — Incumbent service providers

While V-MVPD opens the door for any aspiring new entrant, it is really the MSO/ service providers who are at an extremely advantageous position to take the lead. Here is why:

- They are at the best position to negotiate with the content providers, given their existing deep-rooted relations with them
- Other technology providers can eventually sign up deals with one or two providers to distribute IP video, but signing deals with multiple programmers to compete with an existing MSO is near to impossible
- With the required CDN infrastructure, cloud-based infrastructure and CPE capabilities already available, they get the first-mover advantage

The opportunity for the service providers

Service providers in the United States today are limited in their footprint either by the extent of their infrastructure (both distribution and last-mile connected homes) or by the competitive agreements mutually entertained between the MSOs/Telcos. The following figure highlights the service footprint of Comcast and Time Warner. As it clearly outlines, it presents a huge scope for national expansion for these service providers, if only they don't have to depend on their own network infrastructure to reach each and every home with their cable or fiber. And V-MVPD leads to an ecosystem that drives toward such a possibility.

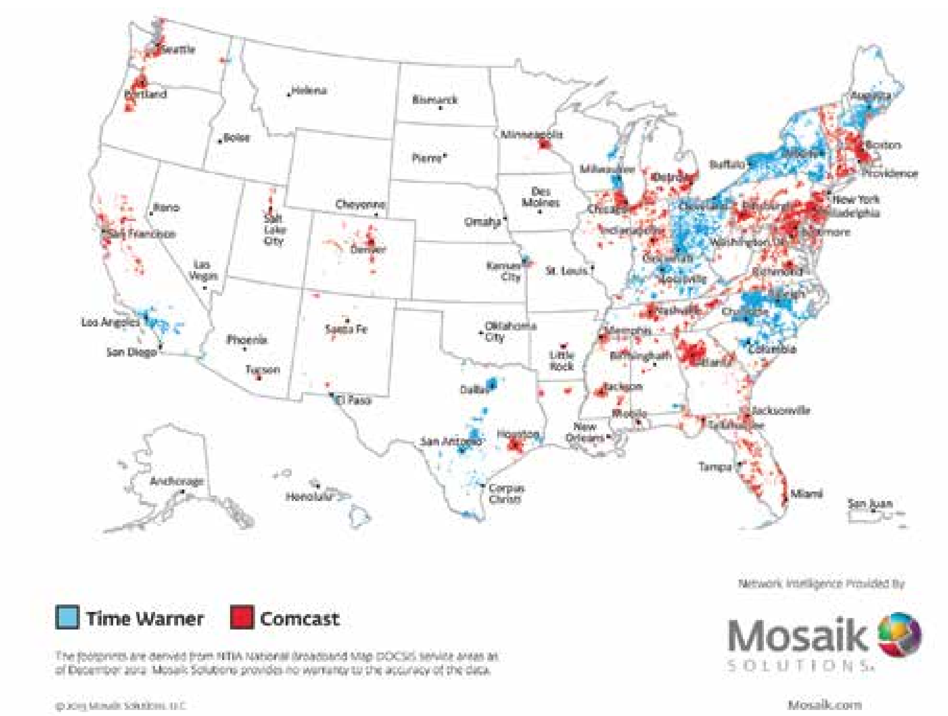

Figure 3: Comcast and Time Warner Footprint

With Virtual MVPD, the service provider can break out of the confined territorial boundary, gradually getting a much wider footprint nationally and potentially across the globe.

Figure 4: Potential Roadmap for Growth

While the national expansion warrants an all-out competition and price war among the service providers, the global scene might present a different opportunity. The advantages of such a virtual setup in reaching global audiences are:

- Unlike the United States, most of the emerging markets do not have an organized CATV or Fiber network and hence no planned wireline (or cable) infrastructure or last-mile connectivity, thereby necessitating OTT services as the only option to lit a larger home base
- Nascent cable TV markets in terms of technology infrastructure presenting a good opportunity for acquisition and mergers
- A rising middle class in emerging markets with a good appetite for Hollywood movies and U.S. prime time content that is ready to pay for content

Transaction- and subscription-oriented revenue models would gain more prominence. Additionally, newer revenue models could be realized by offering syndicated content on a revenue sharing basis.

Think of MSOs partnering with Netflix or Amazon to secure early air rights to their original content (like House of Cards) in exchange for offering superior QoS for Amazon streaming on their broadband pipe. And of course in the V-MVPD era, your competitor is your content provider and vice versa.

Yet another possibility — Since most of the streaming will rely on the IP, MVPDs could create additional tiers of broadband package and command an increased premium to support HD/UHD or even tie that to channel bundles.

Addressing some of the white spaces along with some best practices would help differentiate the leader from the rest of the pack:

- Simplifying licensing and DRM to provide a seamless experience for the customer. No matter, where, and on what device — Customer pays for content once and access it in any form — TV, Web, mobile devices, gaming consoles, and anywhere — home or outside home. Today a service provider app provides a partially unified experience — Once you subscribe or purchase the asset through their app, you can view it in your TV or mobile device through their app. But the ability to purchase a series of "Game of Thrones" through iTunes and have it automatically reflect in your TV VOD folder (or) being able to watch it on your Kindle device or TV would be a great user experience.
- Content is not any more restricted to home or a set of devices. The technological platform should be robust enough to support content portability and have the agility to add newer models of devices in a short span of time.
- Efficient framework and business collaboration to ensure QoE. Remember, as a V-MVPD, the service provider does not necessarily own the network. It is imperative to have an effective means to ensure the right QoE for the service, be it peering network agreements with network providers or having Wi-Fi federation or an LTE network.

What are the risks

- Service relies upon third-party broadband service. Any degradation in service might affect the QoE and hence the brand value
- Key is to offer a compelling price and the ability to pick and choose and drop a program as and when the customer wants. This would require cooperation with programmers for viable unbundled deals … a long way to go!
- Potential intervention from FCC
- Potential margin erosion in existing markets
- Could lead to breaking the gentlemen agreement between MSOs on service boundaries
- Probability of smaller Pay TV providers selling off their Pay TV business to larger players and starting to focus on broadband service offerings

STRENGTH

- Deep pockets and relations to broker deals with multiple programmers
- Most MSOs are invariably Program owners themselves (like Comcast-NBC)
- Cash rich to offer attractive pricing models to thwart competition

WEAKNESS

- Huge brand value making it averse to take risks
- Clear demarcated service area for each MSOs making it difficult to expand footprint nationally
- Inability to sign unbundled deals with Programmers preventing them from offering a-la-carte to customers

OPPORTUNITY

- Compete nationally by expanding the footprint and potentially to a global level
- Cross-selling opportunity to upsell VMVPD customers to their bundled packages

THREAT

- Lack of "clear rules for the game" from FCC
- Programmers themselves can launch their service directly to consumers (ex: HBO GO), though a little far-fetched
- An all-out war where all the MSOs, Satellite & Wireline providers trying to invade each other's customers

Figure 5: SWOT analysis for an MSO becoming an VMVPD

Conclusion

With the proliferation of online video distribution, the last piece in the puzzle is to offer premium broadcast content via broadband. While there exists a lot of unknowns like how the broadcast ecosystem (read programmers and service providers) will evolve, how one would maintain the right QoE to deliver online video, and what the right pricing of services for target customers will be, it is evident that V-MVPD will see the daylight pretty soon.

Based on the Industry experience, capability of execution and infrastructure readiness, below is how the various players would stack up to become a successful V-MVPD.

Given the sweet spot the MSO/Service providers are in the current broadcast ecosystem, they fit the bill pretty well to become V-MVPDs, and it is eventually the content providers who will decide the successful one among the lot, by the way of content distribution deals and pricing.

It is just a question of time before the story unfolds.

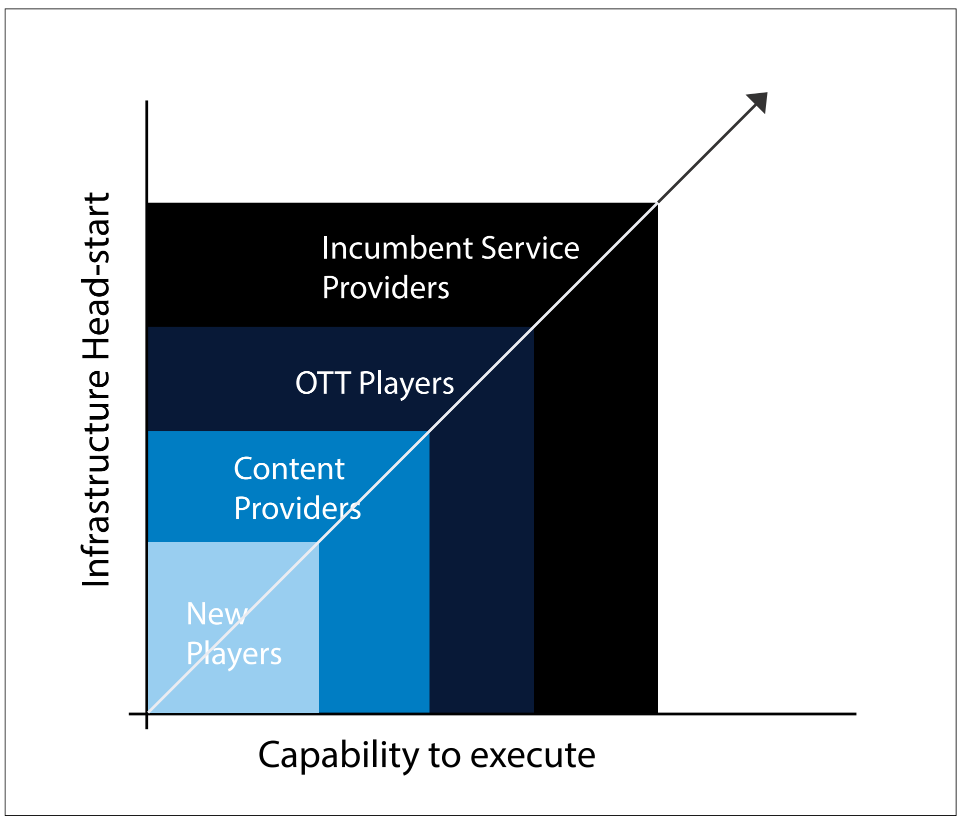

Figure 6: Competitive Positioning of Potential Players

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