Monetizing the Network: Triple Play Is Just the Beginning

Service providers are being squeezed out of the applications value chain. But there are new opportunities for them to add value to the network by partnering with application and content providers.

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Recent industry studies have predicted that over the next 10 years, voice and messaging revenue will decline dramatically from as much as 85 percent of overall service provider revenue to less than 20 percent of overall revenue. Voice as a service is not going away, but it is becoming increasingly commoditized as providers compete for services and VoIP technologies continue to evolve. This trend has already affected fixed-line service providers over the past few years as voice revenue has steadily declined. Providers have been able to offset this decline in traditional voice revenue with the tremendous growth in mobile services, but this growth, too, is expected to slow as the domestic market reaches saturation. Wireless voice revenues are also showing some signs of commoditization; several of the largest mobile operators have recently introduced $99 unlimited wireless plans.

Studies also predict that revenue from 'other services' will grow from a scant 10 percent of overall revenue today to as much as 50 percent of overall revenue in 10 years. This should be of little surprise, as telcos continue their significant investments in delivering advanced "triple play" services of voice, video and data, and these bundles continue to gain traction in coming years. While these services are certainly strategic, the ability to deliver other value-added services – bandwidth on demand, gaming services and many others – will be critical to service providers' ability to differentiate themselves in a market already crowded with offerings, and ultimately to offset the continuing decline in voice and messaging services.

THE CHANGING VALUE CHAIN

A key challenge facing service providers today is how to insert themselves into the revenue value chain, which has changed dramatically the past few years. Not very long ago the value chain was fairly simple: Consumers paid the network service provider, which in turn paid the infrastructure vendor, which in turn paid the infrastructure component vendors, and so on. Today, end users have many choices for applications and content. In many cases, they deal directly with the third party offering the services and bypass the service provider altogether.

Directly purchased services, commonly called "over–the-top" services, cause revenues to be decoupled from the growth of traffic on the network. Service providers must support the delivery of OTT services, but they are typically bypassed in the revenue chain and therefore do not receive any revenue for delivering the service to customers – primarily because they don't add any value to the delivery of the services, which are simply delivered over their "best effort" network.

MONETIZING THE NETWORK

To avoid being commoditized, service providers need to find a way to monetize – or extract maximum value from – their networks. Monetizing the network requires a two-pronged strategy:

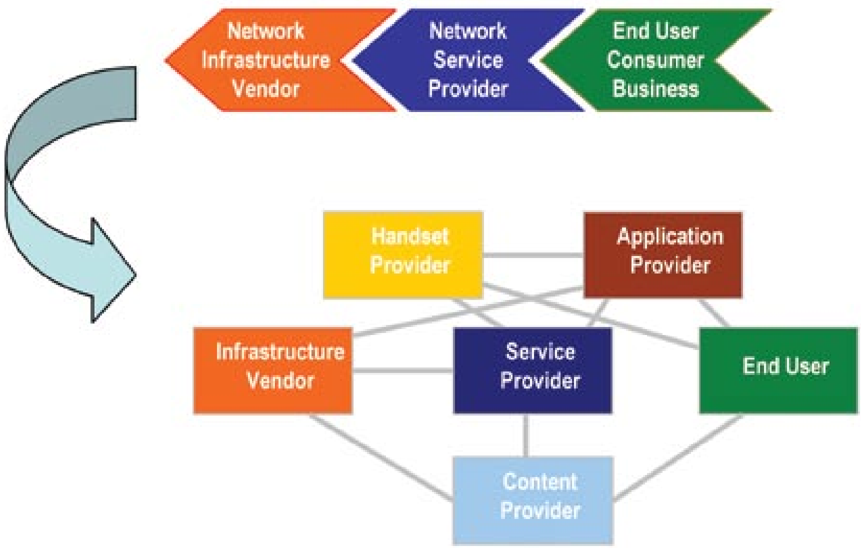

Figure 1. The revenue chain is evolving.

Service providers must pursue relentless economic optimization, while also driving average revenue per user (ARPU) by aggressively expanding market, service and partner opportunities. A complete business model transformation is required – one that results in an increased range of innovative new services for us as consumers.

The changing revenue chain has created potential for service providers to pursue new business models. While there are a number of possible ways to classify business models, three models that service providers might pursue include:

1. **Utility Provider** – The primary role of a utility provider is to deliver bandwidth to subscribers' static and mobile devices. Utility providers need to be very cost-conscious and provide the bandwidth at the minimal cost point to make a successful business model. The network is predominantly a best-effort network and the utility provider does not add value to the delivery of the service to customers. This model is where many service providers are today.
2. **Content/Application Creators** – This type of provider develops content, applications or services that are delivered to customers through a utility provider or distributor. The services are often OTT services delivered by the service provider in a best-effort network. In some cases, depending on the application, the content/application creators will partner with distributors to ensure that their content or application is delivered to the customer with the appropriate quality of experience. Revenue can come either directly from subscriptions or indirectly through advertising, and is commonly derived on a per-use basis such as a movie or online software. This category of providers includes many of the well-known Web-content providers and portals, such as Google, Yahoo! and many others.
3. **Value-Added Distributors** – These deliver content, applications or services to end users but have the ability to add value in the delivery to ensure a specified level of experience for the customer. The services can be their own services that they own, manage and deliver, or they can be services delivered by the service provider through a partner or creator of content. The key difference from utility providers is their ability to deliver the service with the appropriate quality based on both the consumer and service requirements. This can be best effort, better than best effort, or assured delivery. Guaranteeing service quality requires some interaction between the application or service itself and the underlying network.

Of the above models, the value-added distributor model offers the greatest opportunity to generate "other services" revenue. It allows the service provider to be a major part of the revenue chain because it adds value in the delivery of services to the customer; and it delivers increased value to subscribers by providing them with a broader range of innovative, quality services. The distributor model typically requires a major evolution from where most service providers are today. The remainder of this article will discuss ways in which service providers can evolve into the distributor model.

DELIVERING VALUE WITH THE NETWORK

Ivan Seidenberg, CEO of Verizon Communications, recently said, "We don't have to own every service. We just have to package a lot of them and help the customer find the things they like." This is the essence of the distributor model – but with the addition that the services are delivered the way the customer wants or the way the service requires them to be delivered. This capability gives service providers the opportunity to extract value from their networks, and also gives consumers the choice of services they desire along with the quality and performance they require.

Content/application creators might be willing to partner with distributors to ensure that their content/application is delivered to customers with the appropriate level of quality. Customers are more willing to continue to use an application if their experience meets or exceeds their expectations. Likewise, customers are likely to go elsewhere if an application is not delivered to their satisfaction.

OTT services are a result of the openness and ubiquity of the Internet and it is not reasonable to assume that service providers can or will limit access to them, because these services are the ones in highest demand from most subscribers. Currently, OTT services are generating a lot of network traffic but the service provider receives no revenue for supporting them. Customers order the OTT service from the content or application provider and the application is delivered at the best possible service quality, given the current state of the network. This model can result in a poor customer experience, which impacts the customer's willingness to re-use the ser-

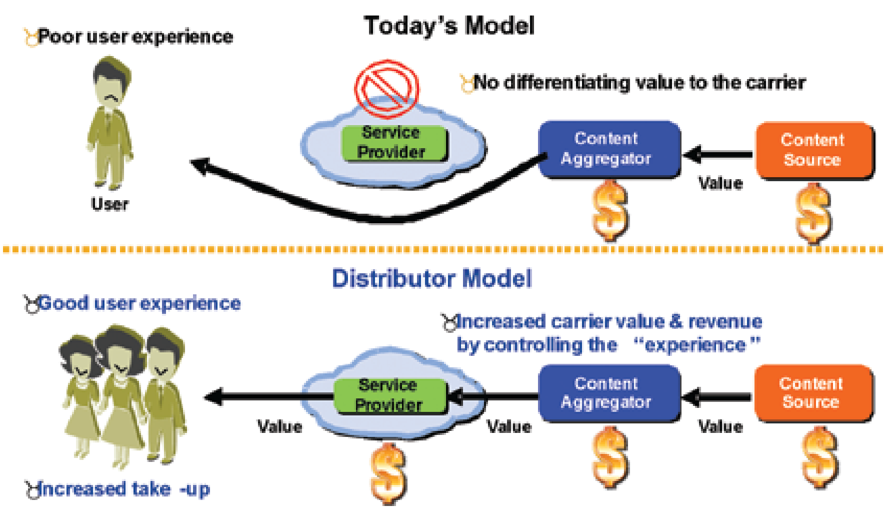

Figure 2. Current model versus enhanced model of delivering services.

Service providers should identify over-the-top services where they can partner to add value. For example, a provider might partner with Amazon to add a premium level to the Unbox movie download service, where for 50 cents per movie customers would be guaranteed to receive the full movie download in 10 minutes or less. Or, they might guarantee a VoIP stream with minimal packet loss.

vice. Figure 2 depicts the current model vs. the distributor model.

Service providers should attempt to identify the OTT services on their network where they can add value and partner to deliver this value to their customers. One example of how this could work is the Amazon Unbox movie download service. Currently, customers can download movies onto Tivo boxes through the Amazon Unbox service. However, due to the size of the movie file, downloads can take an hour or more depending on the speed of a customer's connection and the status of the network. If a service provider were to partner with Amazon, the provider could potentially offer the customers a premium service, where for 50 cents per movie they would be guaranteed to receive the full movie download in 10 minutes or less.

This allows the customer to quickly download the movie and begin watching it within a reasonable time frame. In return for the added value of delivering the movie quickly, the service provider keeps a share of the premium revenue. The result is a satisfied customer, willing to return and use the service again. The service provider value is to offer the customer and the content aggregator a "micro-SLA" (service-level agreement) stating the movie will download in a specified time – 10 minutes in this case. Of course, along with this value come additional revenue opportunities for both the service provider and content aggregator.

MOVING BEYOND THE TRIPLE PLAY

In order to move beyond the current service model to a true value-added distributor model, many service providers are rethinking how they view and market their network. Some of the guiding principles include:

- **Quality of experience:** The overall value that can be extracted from the network is directly correlated to the quality of the experience the network can deliver to your customers.
- **Best effort stays best effort:** Stop overbuilding the network to support services that don't add value, and let best effort remain best effort. This ensures that value can still be extracted out of the network for premium services.
- **Applications and network must interact:** Implement a network where the applications can tell the network their requirements for delivering the expected experience to the customer. This requires communication between the applications and the underlying network. Frameworks such as Web 2.0, Web Services and IMS can be leveraged to make this happen.
- **Service- and customer-specific SLAs:** The service provider must deliver a micro-SLA for the delivery of the application or content to customers. A micro-SLA is an SLA on a service or flow. The above example was time-based for downloads, but it could also be measured by amount of packet loss or network jitter in a VoIP or video service. A micro-SLA adds significant value, and where there is value, there is revenue. This micro-SLA is critical to making the value-added distributor model successful.

Establishing these guidelines will help service providers to drive competitive differentiation and will keep subscribers satisfied by delivering a broader range of applications and content with a high quality and better experience.

The overall goal in enabling the value-added distributor model is to build a network that can deliver any application to the customer and either control the experience for the applications where the customer is paying a premium or provide true best effort delivery for nonpremium applications. Premium applications can be either applications that the service provider controls and hosts on its own network (on-net applications) or applications that are hosted by the partner (off-net applications). The key is the service provider's ability to provide value – and new service opportunities – to the application by delivering it with the appropriate customer experience. In addition, best effort applications are delivered with a true best effort networking experience that is not oversubscribed.

CONCLUSION

There will likely be a major shift for service providers in how revenue is generated over the next 10 years, and how consumers see their network service provider. This shift in revenue will challenge service providers to evolve to new business models to ensure they are capable of offering value-added services to their customers. The value-added distributor model is one possible model that provides a path for service providers to become a critical part of the revenue chain – generating new revenues from a variety of applications while driving consumer loyalty and competitive differentiation. Recognizing this shift taking place today will help service providers successfully navigate the changing market and ensure the high-quality delivery of a range of services that go beyond a basic triple play offering.

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