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Business Transformation: Advanced Business Models for Converged Communications

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Introduction

While service providers have traditionally generated their revenue by extracting value from their networks – a tangible asset that offers connectivity capabilities to enterprises and consumers – key trends in today's marketplace are changing the rules of the game. Indeed, today's business models that extract value from intangible assets – such as user profiles that can be monetized through targeted advertising or mobile and e-commerce initiatives that generate commissions or service fees from transactions – generally outperform models centered exclusively on tangible asset-based connectivity revenues.[1] As a result, service providers should carefully evaluate their present mode of operation (PMO) and business objectives to examine additional business models that may better suit a future mode of operation (FMO) that supports top-line revenue growth and reduces operational expenses by leveraging a host of intangible assets within their business.

There are global consequences to this transition from PMO to FMO. At Alcatel-Lucent, we believe that new and emerging industry business models will enable service providers to:

- Continue broadband penetration and deliver successful and innovative services over broadband in mature markets and
- Maintain momentum on mobile subscriber growth and enable broadband to become a true mass-market phenomenon that delivers the benefits of information technologies to all citizens in high-growth markets.

The New Consumers Have Grown Up and So Have Their Service Needs

There is a growing realization of the need for fundamental innovation in the communications industry today. As a result, we are seeing service providers move cautiously to embrace business transformation strategies. But these moves are taking place with some trepidation. There is significant concern that too much rapid change can prematurely disrupt business models that currently represent the lion's share of revenue streams. After all, it is estimated that, on average, 80% of current revenues in the global telecom sector are generated by voice and data subscription services.

However, this traditional model is showing signs of saturation in developed markets and, more seriously, exposes service provider weakness against non-traditional competition. As a result, we at Alcatel-Lucent believe that the time is right to introduce advanced business models that allow service providers to not only tap into new revenue streams but, most importantly, to differentiate themselves from competitors by augmenting their existing subscription-based businesses.

To evaluate current business models and determine future means of differentiation, service providers need to perform a critical assessment of their existing tangible and intangible assets and ask themselves which ones they can monetize. Once these assets are identified, service providers must evaluate what rights they can sell for each of these assets in order to maximize their return on

investment. By looking at the business in this context, it will become clear that existing offers can be differentiated by introducing services based on new business models.[2]

A recent example of how new disruptive business models can generate new revenues and create differentiation in the marketplace can be found in the digital music player market. This market has been crowded with manufacturers offering a wide variety of products and services for many years. The traditional manufacturer-led market was solely based on selling the music players – a physical asset. But this market was disrupted by Apple when it introduced iTunes, a new content distribution engine, as a part of its business model for its iPod devices. Apple differentiated its player by giving people an easy way to load music and video (both intangible assets) to their devices and proceeded to quickly capture 80% of the United States digital music player market. This feat was accomplished despite the fact that it was not the lowest-cost provider of music players. This experience offers an object lesson in why businesses in general – and service providers in particular – should look seriously at differentiating themselves from the competition by introducing new business models that leverage the intangible assets they own, in order to generate revenues in new ways.

Failure to do so can result in negative consequences – in the form of a negative spiral of growing costs and flattening or decreasing revenues and margins.

To move effectively from the PMO to an FMO, service providers must go through a transition phase, during which operational costs may actually increase because they have to maintain legacy systems while deploying new, IP-based systems. Interestingly, we believe a new business model based on financial assets can be considered to underwrite the transition from legacy to IP platforms. For instance, service providers can use their networks as collateral for bonds issued in the market – offering a relatively simple way to use existing physical assets to fund new business models, without significant impact on the mid-term financial results (see our article in this issue entitled, *New Financial Instruments – A New Rule for Transformation*). In fact, if the transition to new models is handled effectively, not only will service providers have an opportunity to actually reduce their operating costs, but they will also be able to launch new services more quickly. The key question then becomes: What do the FMO models look like?

Real-world Business Models to Maintain Competitiveness

Broadly speaking, there are eight key business models that service providers should consider as they explore new ways to reduce costs and maintain or increase revenues over the long-term.

- **Wholesaling:** This occurs when a network operator resells an asset – such as excess network capacity – to a retail service provider – such as a Virtual Network Operator (VNO). The VNO then offers services to commercial institutions or consumers. The wholesaler owns and operates the access network and offers connectivity to service providers.
- **Outsourcing:** This involves transferring the management of resources and day-to-day business functions to an external supplier. These business functions range widely, for example, from billing to data storage all the way to supply chain or human resource management. The primary focus of this business model is two-fold: to reduce the total cost of ownership of an existing operation or to improve time-to-market of new services that would otherwise require longer periods to be implemented internally.

1,2 "Do Some Business Models Perform Better Than Others?", Working Paper 4615-06, May 18, 2006, T. Malone, P. Weill, R. Lai, V. D'Urso, F. Herman, T. Apel, S. Woerner; Massachusetts Institute of Technology (MIT) - Sloan School of Management, Harvard University - Harvard Business School, The University of Tennessee.

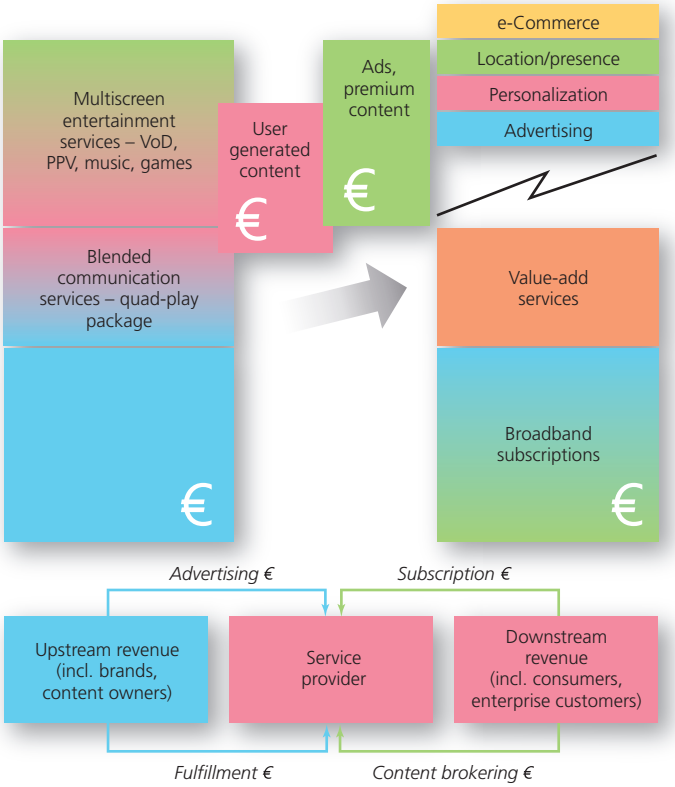
- **Asset-sharing:** This model is triggered when two or more service providers that individually own and operate networks share overlapping tangible assets. The benefits of this model include the ability for service providers to realize significant cost-efficiencies by eliminating overlapping infrastructure. This allows them to reduce environmental impact and expand their coverage areas by redeploying displaced infrastructure. Service providers under this kind of an agreement can reduce the total cost of ownership of infrastructure and redirect their savings to differentiate their offers with innovative services and applications.
- **Content Aggregation and Brokering:** This involves the coordination of commercial agreements and technologies that support the availability and legal distribution of user-generated content (UGC) and premium content. Examples of premium content include newspaper articles and multimedia files – such as copyrighted music or video. Revenue is generated as individuals directly purchase content (such as via video-on- demand and pay-per-view models) or sign up for subscriptions to premium content. This model can also be integrated with sponsored activities. A critical aspect of content aggregation and brokering is the ability to manage the distribution while ensuring the integrity of content complying with the copyrights of authors and editors by using digital rights management technology. By brokering content from multiple sources, the service provider can offer unique services and contribute to the top line in a revenue share model with content creators.
- **Targeted Advertising:** This refers to the ability to interactively connect individuals with the brands and people they are interested in through multiple screens (mobile, computer, TV and so forth). This has emerged as an important revenue stream opportunity for service providers (see our article in this issue entitled, *Breaking the Rules: Finding New AVPU Through Click-throughs*). Converging networks and related services are combining with the management of subscriber profiles to offer insights into geographic, demographic and – most importantly – behavior patterns about the subscriber base. Targeted advertising models should be optimized to provide the right message to the right people at the right place at the right time. Brands and advertisers will pay a premium to service providers that can offer these types of targeted advertising services, making significant contributions to top-line revenue growth.
- **UGC and Communities:** This model calls for the development and deployment of platforms, tools and applications that allow any user to generate and distribute multimedia content. This content can be developed by individuals or in a collaborative environment by multiple users. After content is initially created, it can be modified, commented on or rated by other users after it is published. Common types of UGC include discussion boards, blogs, social net-working sites, news sites, trip planners, products and services review sites, photo sharing sites, as well as game sites and any other web site that offers the opportunity for the consumer to share their knowledge and familiarity with a product, topic or experience. Examples of businesses that are taking advantage of the UGC model include Wikipedia, eBay, Facebook, MySpace, TripAdvisor and YouTube. The broadcast industry has also taken advantage of UGC in a creative way, adding an interesting twist to customer interactivity and stickiness to services. User voting via the Internet or mobile phone has been widely used to influence and decide the outcome of programs and reality shows such as American Idol in the US.
- **Fulfillment:** This model is triggered when service providers leverage their established billing relationship with the end users to complete transactions and deliver services on behalf of third parties. A music label, for instance, can work with a service provider to allow consumers to download music to a multimedia device and then have the cost of the music appear on the telephone bill.

- **E-Commerce and m-Commerce:** This model calls for extending service provider network resources to support the buying and selling of products or services over electronic systems and mobile networks. For example, consumers can use the wireless network infrastructure to extend the reach of electronic funds transfers, supply chain management, Internet marketing, online transaction processing, electronic data interchange, inventory management systems and automated data collection systems. M-Commerce creates the ability for consumers to pay for goods and services with their mobile phone – turning their mobile device into a "virtual credit card." Service providers can leverage financial knowledge of their subscribers/customers to extend – or contract – credit limits while providing the communications infrastructures to complete an increased variety of transactions.

Each of these business models either reduces operational costs or increases the top-line revenue. Either way, they can boost margins. The business models that result in cost savings are outsourcing, wholesaling, asset-sharing and hosted services, while content aggregation and brokering, advertising, user-generated content/communities, fulfillment and m-commerce increase the top-line revenue.

In order to support the new and emerging business models, Alcatel-Lucent believes that service providers and enterprises should start considering non-traditional ways to monetize their intangible assets (Figure 1). Intangible assets – like location, presence, community, billing relationship and so on – can be leveraged to improve customer relationships and trust and control what flows through the network. Service providers can then add other end-user applications and third-party management to further extend the value of their intangible assets. This will be necessary if service providers are to leverage the high-growth opportunities that still exist in the new communications economy of the 21st century.

Figure 1: **Unlocking the Value of Intangible Assets – New Roles, Services and Rules for Service Providers**



Opportunities Still Exist for Traditional Subscriber Growth

For instance, mobile penetration has only recently reached 50% of the world's population, with three billion mobile subscribers. Yet countries with great growth potential such as India – where 8.05 million new mobile subscribers signed up in October 2007 according to that country's Telecom Regulatory Authority – still have just 230 million subscribers. This represents a 20% penetration of this immense market.

Broadband penetration is even worse in many other regions. In Southeast Asia for instance, out of a total population of 580 million, only 80 million people use the Internet (less than 14%), and a paltry 5.6 million (less than 1%) are broadband subscribers.

To achieve true mass-market mobile and broadband penetration, monthly costs must drop below $2 USD (€1.3) for mobile access (as it has in countries like India) and $10 USD (€6.5) for broadband access. This poses challenges in how the services are defined and how they are priced and billed across the entire service delivery chain – from infrastructure to point of sale.

In his book *The Fortune at the Bottom of the Pyramid*, Professor C. K. Prahalad advocates the need for innovation to address the "bottom of the pyramid" market. He contends that two types of innovation must take place to mine this segment of the pyramid:

- **Product Innovation:** such as making ultra-small units of consumption available for purchase or creating novel purchasing schemes that make products and services more affordable without sacrificing quality; and
- **Process Innovation:** such as distribution and service delivery mechanisms in which the entire delivery is reexamined to minimize costs and maximize revenues.

In addition to what Prahalad suggests, New Business Model Innovation such as new business models based on leveraging intangible assets should be examined.

Real-world Business Model Innovations

To enter new high-growth markets, mobile and broadband services must become truly affordable to new and existing users. As a result, there is growing pressure to adopt new business models that allow greater penetration.

- **Sponsored Communications:** A major innovation in this arena revolves around advertising-funded calls. It represents a significant shift away from the subscription model. Users who agree to receive advertising messages pay less for their calls and texts or get additional bonus minutes of air-time. Pioneering this approach is UK-based Blyk, which has launched discounted service offerings to 16- to 24-year-olds if they accept advertising messages. This approach could reduce the consumer access costs by 20 to 50%. Service providers will sell these assets to the advertising industry, highlighting the number of users who can be reached, media impact and cost-savings compared with alternative media.
- **M-banking:** In many countries, a large percentage of the population does not have access to basic banking services. There are several reasons for this. It can be too costly to manage small accounts and transactions using current banking systems, and many banks do not have enough branches to address the entire population – particularly in rural areas. M-banking uses mobile technology to address these issues. Mobile pre-paid payment engines have been developed and optimized to manage millions of small transactions in real-time, using Short Message Service as a very cost-effective customer service interface. Globe Telecom, a leading telecommunications service provider in the Philippines, offers its G-CASH service with an electronic valet feature that allows users

to send and receive cash and make payments via texting technologies. Globe had more than 19 million subscribers at the end of September 2007, and close to a half-million active G-CASH users. Al Hammond of the World Resources Institute predicts that mobile banking will bring huge numbers of previously excluded people into the formal economy quickly, simply because the latent demand for such services is so great, especially among the rural poor. Hammond says, "... I'm predicting that mobile-phone banking will add a billion banking customers to the system in five years. That's how big it is."[3]

- **Broadband Community Centers:** Operators can promote and support Internet access through community centers that offer services such as e-government (registration of vehicles, application forms) or e-agriculture (weather forecasts). Many of these centers are based on private and public partnership business models. In Western Australia, many broadband community centers have become government agents or bank branches. In other words, these broadband communities have become a platform on which several industries and organizations have increased their reach to the population, so that they can serve customers and constituents better and in a more cost-effective manner.
- **Hosted Platforms:** Alcatel-Lucent's hosted mobile data center in Dakar, Senegal, is a good example of this approach. Service providers in four countries in this part of the world are using the data center to offer General Packet Radio Service (GPRS) applications that can be transmitted over links that run at speeds of up to 115 kb/s. This enables service providers to release services very quickly (less than three months) based on an innovative business model where participating service providers pay only when they use the platform. This is a very efficient way to deliver advanced services in countries that do not have sufficient users to justify investment in stand-alone platforms.

A Consultative Approach to Business Transformation

Alcatel-Lucent can help service providers understand and choose the right strategic direction they should take to innovate for future success. We have developed a structured, consultative framework that identifies the right steps individual customers can take to maximize their potential. The simple process consists of:

- **Step 1 – Identifying our customer's PMO.** This requires an inventory of the types of assets that are available to the client (physical, intangible, human, financial) and what rights to these assets are currently being sold (right to own, right to use and right to broker).[4]
- **Step 2 – Understanding the customer's top priorities and objectives,** such as determining if they are to augment revenue, reduce operational costs or both.
- **Step 3 – Identifying the customer's intended FMO** for these assets and their rights, and then mapping them to one or more business models.
- **Step 4 – Identifying the appropriate products, services and solutions** that provide the platform required to meet the customer's FMO needs.

3 ©2008, *The New York Times Magazine*, "Can the Cellphone Help End Global Poverty", Sara Corbett.

4 "Do Some Business Models Perform Better Than Others?", Working Paper 4615-06, May 18, 2006, T. Malone, P. Weill, R. Lai, V. D'Urso, F. Herman, T. Apel, S. Woerner; Massachusetts Institute of Technology (MIT) - Sloan School of Management, Harvard University - Harvard Business School, The University of Tennessee.

Conclusion

As the telecom market evolves away from traditional subscription-based business models, a growing number of customers are starting to explore how best to maximize their existing tangible and intangible assets. Armed with this new understanding, service providers can develop new revenue streams and stimulate latent demand in unexplored market segments and underserved populations. Faced with ever-increasing competition from non-traditional market players, innovation in business modeling is the key to developing future revenue streams that will guarantee commercial success in the future. Wide and deep experience in introducing innovative business models for mature and high-growth markets makes Alcatel-Lucent an ideal partner for growth in tomorrow's competitive marketplace.

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