

Rapidly Delivering and Monetizing New Services

How Innovative Business Models Are Providing Carriers an Edge

The calling is clear—generate more revenue from existing subscribers while keeping ahead of competitors. Business executives at major carriers must quickly deliver and monetize new services across subscribers and business lines, despite what seem to be insurmountable challenges. Unfortunately, the vision of most executives is strictly limited by their billing and customer management systems.

Desires such as real-time billing, premium content delivery, consumer self-service and flexible promotional offers will surely improve revenues and reduce churn. However, the ability to rapidly roll out new offerings is only a dream for most operators. Integrating many different systems is a slow and costly process that increases charging complexity, hinders customer care and rarely delivers the desired outcome. Add more nimble competitors who seem to continually innovate and business executives are pressured to perform.

How can carriers rapidly deliver and monetize new services that capitalize on network investments? What are the best charging models? Are there easy ways to up-sell and cross-sell subscribers?

To meet these challenges, leading operators are leveraging a single system convergence approach. Designed to help carriers quickly roll out new services and bundled offers across multiple lines of business, this approach enables new sources of revenue and significant competitive advantages. This white paper will examine the key challenges business executives face when implementing new business models and reveal the many advantages of single system convergence.

Trends Impacting Carriers

As carriers seek to move away from flat-rate pricing, new billing technology will be essential

"Service providers universally agree that the flat-price-based 'all you can eat' approach is the fastest way to relegate themselves to a commodity dumb pipe. To avoid being marginalized as a bit-pipe carrier, service providers

need to implement innovative, tiered business models and be able to monetize them," said a Yankee Group report.¹

As operators move towards a customer-centric approach, they begin stimulating the use of new services, increasing loyalty and reducing churn. "For service providers, it is all about attracting and retaining customers by providing innovative services and competing on value and customer experience," said industry analyst Ari Banerjee, Director of Yankee Group.²

However, high operational expenses act as a deterrent to progress. Back office complexity, integration costs and personnel expenses all stand in the way of innovation. Add that the rich services available over the Internet are a threat to carriers. "With Internet and media companies bearing down on the communications market, communications companies must respond and make strategic bets for the future," declared the Yankee Group.³ Just what the future holds is unknown, but many carriers are examining innovative converged business models that work across prepaid and postpaid customers.

The Blurring Line Between Prepaid and Postpaid

The lines separating prepaid and postpaid are disappearing, allowing carriers to fully monetize next-generation services

In developed markets, there's "a move towards hybrid pricing, whereby the distinction between 'pure' prepaid and postpaid plans is blurring," found an Informa study.⁴ A Stratecast report said, "A convergent billing solution is critical for addressing a growing number of complex services, products and new business opportunities enabled through combinations of multiple technologies and media/entertainment content."⁵

Recently, mobile operators have begun "transitioning the erratic spending patterns of many prepaid customers into a more predictable revenue stream by implementing hybrid contracts, enabling monthly advance or automatic top-ups, rewarding customers for usage and top-up frequency," found Informa.⁶

Stratecast advised carriers to transform their ecosystems to "support real-time service needs including customer-defined usage controls and spending limits."⁷

Real-time rating technology will be essential. "For service providers to launch and monetize innovative services via nuanced business models, they must invest in real-time charging and rating solutions. Service providers must be

¹ Banerjee, A. & Vorhaus, D. (April 25, 2008). Yankee Group. Thinking beyond flat-rate business models.

² Banerjee, A. (January 2009). Yankee Group. Thinking beyond flat-rate and stovepiped business models.

³ Marshall, P. & Maynard, N. (April 2008). Yankee Group. Anywhere network scorecard: Benchmarking mature market communications service providers.

⁴ (2008). Informa UK. Global mobile prepaid strategies and forecasts to 2013.

⁵ Whitelock K. & McNeice S. (October 2008). Stratecast. Global CSP Billing as We've Known is Dead. A Vision of the Future.

⁶ (2008). Informa UK. Global mobile prepaid strategies and forecasts to 2013.

⁷ Whitelock K. & McNeice S. (October 2008). Stratecast. Global CSP Billing as We've Known is Dead. A Vision of the Future.

able to identify and authorize at the most granular level the different types of content and services a subscriber requests," declared the Yankee Group.⁸

Challenges Implementing Innovative Service Models

Many business unit executives are forced to work with systems that weren't designed to rate and bill new services—a major deterrent to offering new business models. For example, charging by the download for premium content, such as a new TV show, is often a challenging process. If services are billed based on minutes consumed, accommodating pricing for on-demand content is a roadblock.

Issues become much more complex when special promotions are added. For example, offering two free downloads when usage thresholds are reached is certainly within the creative bounds of executives, but outside the technical abilities of most existing billing systems.

Time and Compromises

When implementing new services, executives are often forced to wait months or make major compromises

When executives present new ideas, they are often faced with major implementation challenges. The typical response from the IT side of the business is: "This will take months to implement and cost a fortune. Are you sure this is something you want to experiment with?" Because the legacy systems handling billing for most operators were built around voice, not data, the options are very limited.

Add the many different systems that accommodate SMS messaging, video, telephony and data access, and issues compound. The integration needed to roll out new services and special promotions requires extensive development that is outside the control of the business unit.

"Products are becoming more complex, often bundled and/or blended into larger packages. Orders for these packages must be decomposed into their constituent parts so that each part can be correctly fulfilled in a timely manner. The operator needs to maintain oversight of the entire decomposition and fulfillment process to avoid order fallout, manage exceptions efficiently and deliver the product satisfactorily to customers," said a LightReading report.⁹

Most executives want to deliver premium content at a higher price, offer introductory discounts, change models as competitive threats emerge, offer trials and optimize the pricing of content through its lifecycle. For example, if the competition introduces something new, it should not take months for the operator to introduce a similar program.

"Service providers' postpaid billing systems will not meet the real-time needs of these business models and service providers will be forced to look beyond their typical batch-oriented billing platforms," said a Yankee Group report.¹⁰

⁸ Banerjee, A. & Vorhaus, D. (April 25, 2008). Yankee Group. Thinking beyond flat-rate business models.

⁹ Light Reading's Services Software Insider report "Order to Cash: How SOA Can Break Down Telco OSS Silos" (March 2, 2009).

¹⁰ Banerjee, A. & Vorhaus, D. (April 25, 2008). Yankee Group. Thinking beyond flat-rate business models.

Financial Exposure to Partners

As the reliance on third-party content becomes more important to an operator, risk and exposure increase. In most next-generation environments, service providers rely on third-party content providers to expand their service portfolios. However this also creates more financial risk. If carriers cannot collect or charge accurately for consumed data, they often face uncollectible charges from media firms. Examples include not charging for data downloads during voice calls, fraudulent use of royalty-based content or subscribers who default on their bills. To limit exposure, it is important to keep track of usage and billing in real time.

A brief examination of the history of billing provides further insight.

Brief History of Carrier Billing Systems

Since the 1990s, technology has steadily evolved to accommodate new consumer needs while also complicating the ability to innovate

Prior to the 1990s, large mainframe systems, often known as *customer record information systems*, handled all billing processes for carriers. These proprietary black-box systems were not flexible, and much like an oil tanker, were built to do basic tasks and could not be easily modified.

By the middle of the 1990s, UNIX servers emerged as alternatives to mainframes. They were easier to manage and designed for large-scale transaction processing tasks. These systems eventually became modular; allowing a carrier to purchase only what was needed.

Around 2000, the Internet added layers of opportunity and complexity. Portals existed that allowed customers to perform self-service functions; however, there was little integration between the call center and online systems. As new needs emerged, capabilities were "bolted on" to existing billing systems. For example, the need to charge for data was an add-on to legacy billing systems. Over time, more and more applications were developed to accommodate the distinct needs of prepaid and postpaid customers. The result was a complicated array of systems that were often managed by different groups.

In 2005, when IP networks grew in popularity, many new services were introduced, such as voice-over-IP. The real-time aspects of many of these services could enable innovative billing models. However, each time something new emerged, it meant new equipment, new management and new complexities. This pushed many service providers to proceed with flat-rate pricing models that minimized charging complexities. However, this also inhibited growth.

Emerging IP-based and 4G network technologies that provide constant connectivity to high-bandwidth service amplify the need to accurately manage and charge for services. A patchwork of discrete systems will not suffice. Carriers need a billing and customer management system that allows them to adapt and implement new innovative business models to capitalize on their greatest assets—their networks and customers.

The Next Step: Single System Convergence

Single system convergence allows business executives to launch new services in days without reliance on IT

Designed to empower business unit executives to rapidly launch new services, business models and targeted promotions across their entire subscriber base, single system convergence provides a centralized real-time view of products and subscribers across ordering, customer management and billing—with little to no IT interaction. Now new offerings can be implemented in mere days, regardless of network, service or payment, with no more waiting and excuses.

With a unified view of the subscriber, operators can optimize customer management and offer presentation. This means operators have immediate access to customer profiles, balances, plans and statuses, which enable up-selling and targeted promotions across services and business lines. Customer management is also improved across multiple touch points including call centers, interactive voice response, the web and customer self-service. Subscribers benefit from a real-time view of their account balances and can easily monitor their personal spending by setting flexible spending limits.

With a complete and up-to-date view of customers, carriers can offer greater financial control for families, businesses or any other subscriber segment. Thus, creative plans can be established allowing a family to share minutes and services with individual spending limits or a business to enable employees to add personal accounts to their phones for personal usage.

The Great Enabler

Single system convergence combines real-time prepaid and postpaid billing, cross-channel customer care and offer management capabilities into a single solution. This enables the implementation of innovative charging models such as hybrid, real-time usage-based discounts and premium value-based pricing tied to subscriber consumption.

Unlike CRM bolt-on and convergent charging point solution alternatives, single system convergence allows the adoption of customer loyalty programs based on real-time consumption levels. Bolt-on alternatives must leverage many complicated and costly systems, deterring the introduction of new business models. However, a single solution with integrated CRM and billing leverages a single rating engine for all transactions allows accurate charging for advanced services.

The real-time ability of single system convergence means that subscriber rating, charging and authorization happens on the fly, whether the customer is prepaid or not. This brings a new level of service offerings to carriers who feel restricted by the limitations of disparate systems. Determining a subscriber's ability to pay in real-time minimizes revenue leakage. Real time authorization also allows immediate identification of subscribers' profiles for special offers, discounts or restrictions.

When a single system handles all billing and customer management, innovative offers can be easily implemented. With single system convergence, carriers can offer premium content, introductory discounts,

trials and optimized pricing of content through its lifecycle that scales to support millions of subscribers.

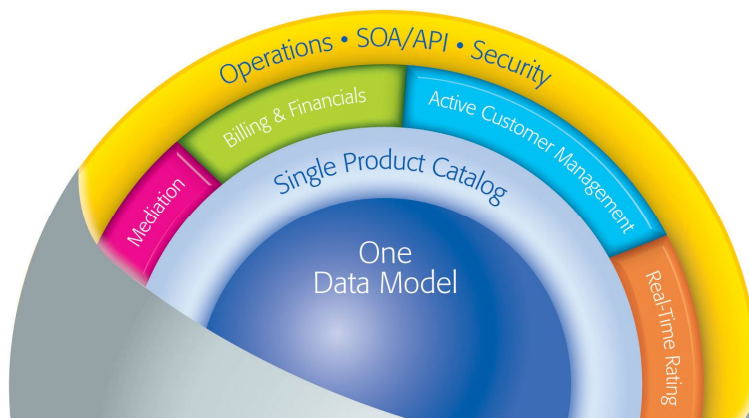


Figure 1: Single system convergence combines mediation, billing, customer management and real-time rating into a single solution that uses a single source of customer data for significant efficiencies.

For carriers offering services to clients across three or more lines of business, single system convergence also provides the ability to offer a unified customer experience. Thus, the consumer experience is consistent across touch points, accounts and payment types for all subscribers. One bill and one customer care phone number can replace the many different bills and service personnel needed to manage subscribers.

Benefits of Single System Convergence

Single system convergence provides many significant benefits to business unit executives.

Increased Operational Efficiency & Financial Management

- Provides a single solution for ordering, customer care, charging and billing, greatly minimizing deployment and training costs
- Eliminates integration costs, system customization and reliance on IT when rolling out new service offerings
- Empowers customer self-service, saving money, reducing call center costs and improving customer satisfaction
- Allows real-time credit control of postpaid subscribers to reduce financial exposure

Single system convergence allows carriers to cross-promote across lines of service and enables the launching of targeted promotions on the fly

Enhanced Customer Management & Marketing Agility

- Enables a single view of the subscriber across all touch-points for optimal customer management
- Permits real-time balance management and authorizations for prepaid and postpaid subscribers promoting real-time marketing capabilities
- Enables the quick implementation of new offers and incentives that match the interests and demands of subscribers
- Supports the development of cross-promotions across product families to entice customers to try new services

Supports the Effective Execution of Convergent Business Models

- Allows value-based charging for content and services in real time, based on subscriber history, profile, status and real-time consumption to extract network value
- Enables hybrid pricing models so that specific services can be offered as prepaid only for faster revenue generation
- Provides rules-based offerings that enable group plans with balance sharing, and spending or credit limits to stimulate more usage
- Allow subscribers to add accounts to a single phone number with flexible charging rules to extend reach and reduce churn; more accounts translate to subscribers being less likely to churn

Example: Hybrid Business Model With Usage-Based Promotions

A Polish carrier launched a mobile network and quickly became the most profitable carrier in the nation

A Polish fixed line operator launched a 3G mobile network targeting Internet-savvy professionals. Its goal was to quickly deliver affordable and innovative multi-media services and customer care channels to all of its subscribers, whether they were prepaid or postpaid.

Using single system convergence, the carrier was able to go from zero to more than a million subscribers in only ten months. In addition, its average revenue per user was 40 percent higher than its marketplace average. Key contributing factors included prepaid and postpaid customers having the same access to the same services. Postpaid subscribers could recharge in the middle of the month, allowing them to attain more services. In addition, usage-based promotions for all subscribers helped improve revenue. For example, for each two minutes of incoming calls, one free minute was offered, and for every two downloads, the third one was free. With a single system convergence approach, the carrier was able to minimize deployment costs, quickly roll out new programs and shape usage patterns.

Seek a solution that supports convergent business models via an ability to support any network, any service, and any payment type.

What to Look for When Moving Towards Convergence

When seeking a company to assist with your move towards convergence, consider the following important requirements:

Works with any network, service and payment type: Look for a solution that can work with new high-bandwidth all-IP networks using HSPA+, WiMax, LTE or 40/100G optical technologies. The solution should also support the flexible rating and charging of any service or content type regardless of prepaid, postpaid or hybrid payment type.

Single platform: The ideal solution should leverage a single unified platform for ordering, customer management and billing, eliminating the technical barriers to introducing new business models.

Product catalog ease of use: Look for a solution that allows marketing to directly interact with the product catalog, without any coding. An easy-to-use graphical user interface should allow executives to quickly implement new offerings.

Real-time marketing: The ideal solution should enable a wide range of prepaid service offerings, including loyalty programs, activity-based promotions, separate charging for data, premiums for special content and segmenting prepaid balances for different types of services.

Consistent multi-channel customer interaction & lifecycle management: Look for a solution that centralizes all subscriber information for IVR systems, web-based self-service, call center, point of sale outlets and mobile devices, enabling the highest levels of service and accommodating full customer lifecycle management. Capture subscribers' changing needs as they evolve from prepaid to contract to other triple or quad-play services.

Accommodates convergent business models: Seek a solution that enables subscribers to have multiple billing relationships with a single phone number for new streams of revenue. For example, a business customer should be able use his or her same phone for personal use with a separate billing relationship. The solution should enable group sharing of balances, usage control and financial spending and credit control for families or businesses, for increased adoption and loyalty.

Production proven and backed by experience: Work with a company that has a proven implementation strategy and extensive expertise servicing only carriers to ensure the highest levels of success. Ask for the company's implementation success rates, and if it has a committed roadmap for future enhancements and carefully examine its customer service record.

The Comverse ONE™ Billing and Active Customer Management™ Advantage

Comverse ONE is the first single system convergence solution in the market.

Designed to help carriers speed their time to market with new services and promotions, the Comverse® ONE™ Billing and Active Customer Management™ Solution meets all of the requirements outlined in this paper. In fact Comverse ONE is the only single system convergent solution in the market. The solution's unique architecture reflects Comverse's extensive expertise in the telecommunications market. More than 150 global carriers have relied on Comverse solutions for more than 20 years. Yankee Group director Ari Banerjee said, "Comverse has a significant play (in converged prepaid and postpaid billing), and it has demonstrated success in this space."¹¹

Comverse ONE's innovative yet simplified architecture is built on an open framework that unifies ordering, customer management and billing in a single product catalog and a single data model. As a result, complex integration is eliminated and all subscriber and product information is centralized. The solution supports any network, service, content or payment type, empowering operators to achieve comprehensive monetization of all services, applications and products.

The Comverse ONE single system convergence approach leverages real-time authorization, rating, charging and policy management for faster collection of payments, reduced financial exposure and innovative tiered charging models. With a single repository of subscriber, product and account information, real-time capabilities are optimized and customer management can take place across all support centers. Whether a customer prefers self-service or speaking to a call center representative, all interactions are based on a consistent real-time source of customer data.

Let Comverse empower you to turn your billing and customer management system into a strategic asset for revenue growth.

For a FREE billing assessment, email billinginfo@comverse.com or for more information about Comverse ONE, visit www.comverse.com/billing.

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¹¹ Banerjee, A. (January 2009). Yankee Group. Thinking beyond flat-rate and stovepiped business models.