

Profitable Convergence: The Integration of Charging and Policy Management

By: Guy Hilton

In today's connected world, perhaps the most powerful examples of convergence are smartphones—in which voice is simply one application among many—and tablets, which have emerged as one of the most revolutionary communications platforms in terms of their impact on how we work, play and live.

Consider this remarkable statistic in a recent [New York Times article](#): mobile devices such as smartphones and tablets now account for 7 percent of worldwide Web traffic, according to a new report from comScore. The comScore report found that 37 percent of mobile phone traffic takes place over Wi-Fi networks—and that Wi-Fi traffic, through mobile devices, grew as much as 3 percent in the last three months alone.

What are the implications for service providers struggling to meet this insatiable consumer demand for smartphones and tablets? One thing is clear: Customers are clamoring to receive their data services in a simpler, more intuitive way across all their devices, while service providers increasingly realize they must find new revenue streams and data pricing models to better serve them.

So let's consider a special type of convergence that



should be of great interest to service providers: the convergence of policy management systems with real-time charging systems to address this new era of data services and customer expectations.

A recent research report sponsored by Amdocs and conducted by the analyst firm Heavy Reading clearly demonstrates the overwhelming demand for integrated charging and policy management solutions to address the data monetization challenge spurred by the rapid growth of mobile devices. In fact, fully 85 percent of the service providers who responded see a need to integrate charging and policy management capabilities. (More information on the survey and its implications is available [here](#)).

and this presents more of an obstacle to HbbTV than the cablecos themselves. Even the most tech-savvy Americans can be a bit phobic of newfangled things

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coming out of Europe, and some may even be willing to pay more for non-converged and non-interactive cable and internet. But, this might boil down to a matter of maintaining individual comfort zones. To succeed in the U.S.—a market where IPTV has underperformed relative to OTT and Cable offerings—and elsewhere, the HbbTV coalition may find that it needs to appeal more directly to the IPTV providers who stand to benefit the most by leveraging HbbTV.

So, for now, all the overworked sofas of America can breathe a sigh of relief, as we couch potatoes will have to wait for HbbTV to make its way over [here](#).

A Simpler Time, And Then the Data Crunch

Let's take a brief look back to see how we arrived at this point. Initially, unlimited data plans made sense for both service providers and customers. Service providers were happy to sign up consumers for unlimited plans as a way to monetize a new and exciting service while most customers still didn't possess a smartphone. In fact, many families had only one or two devices that consumed data.

But then, as smartphones and tablets took center stage, the data capacity crunch hit, with a major impact. Service providers in the U.S. and around the world began to feel the strain as explosive mobile data traffic growth threatened to swamp their networks. The reality of the data capacity crunch continues to place ever-growing demands on the

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network in an increasingly connected world, with Cisco predicting 15 billion connected devices by 2015.

There's no end in sight: the expanding market for smart TVs, healthcare devices, home systems and connected cars will continue to drive this number up. Today it's not unusual for an average U.S. family to own between five and 10 connected devices. For a Tier-1 service provider, that profusion of connected devices can mean supporting hundreds of millions of data events, and that's before taking into account enterprise and machine-to-machine (M2M) services.

Surging demand continues to exceed capacity as more bandwidth-hungry devices are scooped up and used by ravenous users. Data-hungry apps and devices, high-speed Internet penetration, and the increase in video and high-resolution screens mean that service providers' investment in the network is merely a way to keep up with demand, rather than actually increasing revenue.



What Customers Really Want

As all these new data services become available on numerous devices, customers want to receive them in a simple and intuitive manner. This is where value-based pricing—charging based on the perceived value as seen by the customer—comes into play.

For example, a movie package that has data and speed prerequisites already embedded into it for a high-quality experience will offer end customers the ease of use and personalized services that they'll pay more for. Think about how many customers would pay to live-stream the deciding game of the Rangers-Cardinals World Series and not have to worry about the game being jittery or a low-quality viewing experience.

The Amdocs/Heavy Reading research results show that service providers are already starting to consider innovative data pricing plans. For instance, instead of receiving four separate data plans, one for each device, a family could have one easy-to-understand, personalized plan. The consolidated plan would include Dad's iPhone (on a 3G network), Mom's iPad (on a 4G network), a broadband connection and their child's mobile phone, all at preferred bandwidth speeds and payment method. More than anything else, the connected world has changed the customer experience. Service providers are well-advised to take this opportunity to develop new business models and strategies to meet customer demand, while finding innovative ways to deal with the technical challenges posed by the connected world's constantly rising demand for data.

With that being said, today, most policy management implementations in existence have been tactical in nature. Traditionally they were "siloed" for separate lines of business and addressed certain network-related use cases, such as bandwidth management, fair usage and bill-shock avoidance. What these traditional policy-management schemes don't do is provide a unified view of the various customers within a family billing unit; they aren't designed for today's complicated family scenarios.

Getting Ready to Introduce New Data Plans (Including Family)

The Amdocs/Heavy Reading global research report, which was based on 64 interviews with IT and marketing executives from 32 service providers in

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Europe, North America and Asia Pacific, highlights the readiness of service providers to introduce family and tiered data plans in the near future.

With service providers reporting that the average family can have 10 or more connected devices in their household, it's no surprise that 67 percent of providers stated that they plan to launch family plans in the future. The research found that a whopping 82 percent of service providers plan to launch a single data plan that can accommodate multiple devices—a development sure to spur sales of 3G tablets by consumers who may have been wary of signing up for yet another separate plan.

Why go to the effort to integrate—or converge—charging systems and policy management? Precisely because this integration will allow providers to offer a better customer experience by introducing plans that relate to the device type, network status and customer information across all lines of business and other parameters.

The benefits of such integration have some analysts making bold predictions. "Within the next two to three years, the pure-play policy market will be dead," said Heavy Reading analyst Ari Banerjee, who designed the survey. "Service providers realize they can't have a lot of complex plans. And they can't base their plans on things consumers don't understand—such as how much data usage is represented by a gigabit."

Marketing Leads the Way to Advanced Data Pricing Plans

The recent rise in new data price plans is being driven by service providers' need to offer customers an improved data experience and to better monetize their investments in network capacity. Interestingly, it's not just "the techies" who want more sophisticated data pricing plans: 83 percent of global survey respondents say their marketing organizations are asking for IT to enable these innovative plans. Marketing's key motive is to move away from flat-rate data plans or unlimited plans, which do not maximize revenue. Marketing departments are looking to

implement nuanced and complex tiered-rate plans, but are constrained by back-office issues. The majority of respondents said they are most heavily considering data plans shared between several devices, followed by data plans shared between several family members.

All of the service providers interviewed had deployed policy management systems, either as a standalone product in their own implementation or as part of a packet core, according to Banerjee: “When we asked them if they had extended these solutions to monetization of data, the overwhelming majority said they had either tried and failed, or had found the projects needed so much integration that they couldn’t make it work cost-effectively.”

Another interesting finding: 80 percent of respondents said they did not think their existing policy management systems, which are mainly deployed to support network-related use cases, could support more advanced use cases, such as data plans across multiple lines of business and payment methods and spend limits. Ten percent have already tried to integrate charging and policy management systems and failed.

Where Do We Go From Here?

So how can service providers offer all types of price strategies and at the same time monetize the new models in the best way?

“We can expect new data price plans to flood the market as data usage skyrockets with the introduction of improved tablets and smartphones,” said Banerjee. “Our research shows there is global consensus that integration of charging and policy management capabilities is required to monetize these new data pricing strategies. Service providers

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have found attempts to integrate charging and policy management by their internal IT and network departments challenging and too expensive, and are now seeking pre-integrated vendor solutions.”

Everyone—service providers and their customers—stand to benefit from the convergence between policy management and charging. Service providers want the ability to create a new generation of data plans that will enable them to better monetize data services, and customers are practically begging for simple and intuitive data plans that take into account today’s proliferation of data-consuming devices within households across developed markets.

This mutual need is sure to play a large role in the flexible new data plans that will be taking over the market, as devices like the iPhone 4S, iPad 2 and the Amazon Kindle Firetablet cause data usage to skyrocket. The marketing departments of leading service providers are pushing hard to offer valuable services and plans customers want and see value in. But to deliver this value and personalize their customers’ experience, service providers must start thinking about policy and charging as intertwined.

That’s the kind of convergence that can help service providers fully exploit—at long last—the explosion of data traffic to support rich, continually growing new revenue streams.