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## Eye on the Bottom Line: Next-Gen Rating and Billing

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The selection of various services and content offered by service providers, as well as the bundles and billing plans in which they are packaged for users, will be expanding at an increasingly rapid pace over the near future. Strategic investments have brought advances in network management, infrastructure and user devices, and to a large extent, this new technology is enabling the expansion in available services. A rather impressive number of resources have been invested to this end, so it is important that providers will implement these changes properly if they are to see maximum return on this investment.

A key purpose of this trend is the pursuit of a higher value business model. Many legacy services have been commoditized, leaving the providers to operate on a razor-thin margin in a rigorously competitive market. Many service providers plan to leverage these new services to succeed in a next-generation environment. Success in this regard will require more than just new technology. The fading border between Telco and Cable, as well as the goal of achieving a higher-value business model, is fueling the drive to create various bundles of voice, video, and data services, as well as various content packages.

In order to obtain the maximum value from these new services, many providers plan to take a more personalized approach in making them available to subscribers. Beyond the list of available services and content, this entails shaping the way in which they are offered to subscribers, with options tailored to every possible user class or other niche market. As a result, billing is becoming particularly complicated, as not only will there be a new array of services and content available, but for each new service or service bundle offered, there will likely be innumerable pricing schemes, discounts, promotions, on-demand and other options. This sophisticated approach will no doubt help any service provider maximize market share, but a significant portion of the value can be lost to providers if they are not careful. The complexity of this model will contribute to errors or inconsistencies in the provider's data and billing systems, which is generally a precursor to revenue leakage.

It is true that revenue leakage is not a new concept; even in legacy services billing has always been less than perfect. However, the situation is never static, and even those providers who have been successfully addressing revenue leakage may need to upgrade their solutions for this new model. Revenue assurance can be broken down into a few components, involving various aspects of data integrity between network resources and billing data, provisioning process integrity, and so on. One area which is increasing in significance is the process of rating and billing – that is, the processes by which the provider categorizes usage data and assigns the appropriate charges. This can be a source of revenue leakage, as call records arriving to the rating and billing systems are occasionally associated with the wrong price plans and billing schemes. The error may originate from the network equipment's generation of the call records, the mediation, incorrect data in the reference tables, or errors in the association rules which are used to associate the call record to the customer and the price plan.

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The increased complexity of the next-generation business model is simply too much for current rating and billing systems to handle with sufficient accuracy. Rating and billing was not always a primary concern for most providers in the past, because under the legacy model there simply was not as much room for error. For example, in the case of a user who simply purchases a simple voice connection at a flat monthly rate and no other options, not much can go wrong in the rating and billing for that user's call records. However, as subscribers move to various plans, with various pricing schemes for voice, video, and data services tailored to their needs, as well as various promotions for additional services or content tailored to their interests, then many of these potential errors may become more common.

In addition to the task of revenue assurance becoming more complex, the stakes have risen as well. Whereas legacy services typically encompassed a relatively simple revenue chain that included only the user and provider, many of these new offerings are content-heavy, and therefore involve a number of third parties as well. As a result, where revenue leakage used to mean charges that were simply not collected from a subscriber, they can now mean lost revenue to a content provider. Additionally, revenue assurance has added significance for CRM and churn in this model. If users are subscribing to high-value service plans, their tolerance for billing inaccuracies will undoubtedly be stricter.

Fortunately, despite the increased potential for revenue leakage in next-generation services, the problem can be easily prevented once it is acknowledged. Revenue assurance technology now includes systems for rating and billing verification, which allow service providers to pursue their goal of complex service and price offerings without exposing themselves to unnecessary revenue leakage. Essentially, these systems verify that all usage events – including CDRs, IPDRs, and other transaction data – exist and are correctly rated. The data is then processed through functions which mirror the provider's own billing system, but accomplished with far greater efficiency than simply employing a duplicate billing system. Revenue assurance rating and billing verification can be carried out with relatively small xDR samples, and through sophisticated methods of cross-selection and correlation, possess the capability to support an unlimited number of billing plans.

In addition to just the number of pricing plans, rating and billing verification systems address another aspect of the next-generation model which is likely to increase revenue leakage. Market experience has revealed that given any provider's average levels of leakage, the rate almost always rises following any billing-related change, and returns to normal only gradually, if at all. This can apply to changes initiated by the provider, such as new service or plan offered, or any adjustment in the rules relating various plans. This can even apply to changes initiated by the subscriber as well - namely a new selection of plans or options. Any of these events can leave new ground for errors. Leakage returns to normal only later, as the provider's revenue assurance team gradually identifies and corrects the errors. In the next-generation model, this situation will be exacerbated, as these changes are certain to occur more frequently. As providers offer more service, content, and plans, the changes made within any of these categories will be increasingly frequent as well. Furthermore, if these new plans are for the purpose of offering greater flexibility to subscribers, then these new options are also likely to spur an increase in user-initiated changes as well. The new pace of changes has the potential to create additional leakage at a rate faster than can be fixed with current methods.

There are two ways in which rating and billing verification systems address this issue. Firstly, it is an xDR-based, automated system. Manual or in-house revenue assurance systems are too slow to keep up with this new scenario, but xDR data is always present from initial rollout of any new service. So, with a rating and billing verification system based on xDR data, there is no lag time in which leakage is slowly reduced; this is a solution which can bring immediate results. Secondly, with the right rating and billing verification, a provider need not wait until after any new service rollout or other billing change before

they begin to recover leakage. The more advanced solutions available have the capability to simulate any new offering before it is made available to users, bringing a proactive approach to their revenue assurance operations and correcting the problem in advance.

Providers must be careful about maximizing profitability. Implementing a high-value business model with impressive next-generation services and flexible billing plans are an excellent strategy to capture market share and customer loyalty. However, even with increased revenues, the same competition that exists now will still be just as stiff, and providers still have to keep an eye on the margin. It would be a shame to make the huge investment in these new services to retain and maximize market share, and then simply neglect to bill for it.

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