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OSS/BSS: The Window to the Web 2.0 World

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Web 2.0 has provided the end user free reign to the content and communities they seek on the Internet, resulting in the rapid development of social networking sites, wikis, and blogs. The changes have been so swift that often unwary service providers have been relegated to mere onlookers. However, to continue to ignore this business revolution is foolhardy -- a provider who wishes to stake claim to the end user must embrace the demands of the Web 2.0 phenomenon now!

Until very recently, given their closed network infrastructures, telecom operators had failed to capitalize upon the creativity, collaboration, and information sharing capacities within their subscriber base. At the same time, the big Internet Players such as Google and Amazon have progressed rapidly, providing Web 2.0 developers access to mix and match content retrieved from their websites and create new Internet pages that have more value to the end user.

One of the operators' main bottlenecks of participating in the Web 2.0 revolution has been the lack of control over opening their proprietary networks to the worldwide web. Given the popularity of long tail services on the Internet, wherein a large proportion of users are frequenting diverse and niche sites, it is impossible for the operator to be responsible for all content. Thus, while the operator may attempt to own a few services, most will be co-branded partner offerings or third party independent applications. In such a scenario, how does the operator ensure end-to-end service quality to its subscriber base?

The answer lies in the Operations and Business Support Systems (OSS/BSS) that handles charging, network, and service management aspects of the operator's communication portfolio. OSS/BSS will facilitate the transition of the operator from closed silo operations to a service oriented architecture comprising open Application Program Interfaces (APIs). These interfaces, in turn, will provide a controlled and layered access to multiple data sources on the Internet, enabling the operator to supervise end-user experience at all times.

Another key facet of the OSS/BSS is access to personalized subscriber data, which provides valuable behavior and usage patterns and allows the operator to multiply end-user experience a hundred fold. The OSS/BSS can detail when, what, and how often a particular subscriber uses their access, allowing the operator to provide a

customized mix of services to suit the needs of its subscriber base. In the event the subscriber needs to be hooked up to an external service provider on the Internet, the operator can still wield control over the quality of access, i.e. ensuring a stable and powerful enough internet connection that is secure from outside threats such as viruses, spam, and firewalls. In fact, it is the OSS that helps the operator fashion an efficient Data Security policy for subscribers, guaranteeing the same levels of protection that a subscriber is conditioned to getting while surfing the Internet on their PC at home and work.

The OSS also plays an essential part in creating an Integrated Provisioning Solution for every unique subscriber. The end user is not asked to make any additional handset and configuration changes once they accept user settings at the time of subscription. In this manner, the OSS functions as an Operating System of a PC that stores system requirements in its memory and accordingly retrieves them as and when the user logs on.



Take for example the case of a European operator who was keen to launch easy to access, cost effective services that would ensure rapid customer adoption. Nokia Siemens Networks provided an Integrated Provisioning Solution that worked in tandem with the OSS/BSS to provide a single interface for support and service activation using a self-service model. The solution also ensured each user's handset automatically received the right settings for their chosen services. Not only did the automation result in significant OPEX savings for the operator, but customers took to the new services rapidly resulting in a more satisfying end-user experience and an overall improved customer loyalty.

Who owns the customer relationship?

One of the eternal questions about multiple service providers, as in the case of the Web 2.0 phenomenon, is who finally controls the customer? This in turn demands the question of where the customer pays their bill- to the service provider on the Internet that has created the service or to the operator. As operators increasingly embrace Web 2.0 and design a mix of services that are self-owned, co-branded, or

third party, they will see the rationale of controlling billing at all times. Under no circumstance should the operator lose this key relationship with the customer. In fact, when deployed as an effective customer profiling tool, OSS/BSS will help the operator retain and grow a profitable customer relationship.

Take for example a co-branded scenario between a community portal owner such as Facebook and the mobile operator; the advertisements that appear on the service can be further personalized through information brought up by the OSS/BSS. Thus, a mobile subscriber who is a regular Facebook user and is using their mobile connection to access the site while vacationing in London, can be targeted with advertisements about a sale at Harrods or the tour route of the London Bus. It is only the mobile operator that can provide location context to complete the customer profile – a key selling point that needs to be adequately leveraged in relationships with external service providers.

Of course, billing challenges are still very complex on the mobile network. In the case of co-branded partners, more often than not, the service provider and the operator enter into a Service Level Agreement and decide on revenue sharing. While this arrangement is simple enough in a post-paid billing scenario, what happens with a pre-paid billing customer? It is the BSS, containing each subscriber's billing information that will help to keep a track of transactions conducted online and immediately debit the customer account rather than wait till the end of the month as in a typical billing cycle.

With the OSS/BSS privy to usage patterns, the operator can accurately profile the customer and arrive at those services that are their favorites. The operator is thus in a position to charge subscribers a regular premium for access to that particular service on a monthly basis.

The true test of a successful Web 2.0 compliant mobile operator is when subscribers are recognized as belonging to the same community, sharing the same ideas and even applicable to special billing rates. To reach this utopian state, subscriber management will become increasingly important and will need to be flexible enough to allow operators various permutations and combinations. Once again, the BSS will be tasked to converge pre- and post- billing subscribers to create a single glance view of the community as a whole.

A case in point is an Asian operator who is gearing up to meet the challenges of the Web 2.0 world by deploying the Nokia Siemens Networks charging solution to provide a platform to achieving sustained growth and new revenue streams while ensuring quality customer experience.

Operators may still be in the early phase of exploring the Web 2.0. However, once they realize that the OSS/BSS is their true arsenal against the rapidly growing Internet players, it is not long before they spearhead the next spurt of community building opportunities in the mobile space, providing the right service mix to subscribers and effectively capturing new revenue streams.

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