

Prepaid Charging Is Graduating to a Starring Role in Interactive Services

Abstract

Prepaid charging was a great innovation with relatively humble beginnings. It started simply as a way to collect money from those who did not wish to commit to subscription-based services. Now, operators are realizing that their prepaid charging environments can play a much bigger role in mobile communications by serving as a launch pad for next generation offers. This white paper discusses the exciting developments occurring in and envisioned for prepaid, along with the platform changes required to support them, and argues that next generation prepaid will soon be a competitive necessity for operators everywhere.

Consider the developments that are already occurring and those that are on the industry's radar screen:

Bundling

Legacy prepaid is primarily geared to creating accounts for single users accessing single services, such as voice or Short Message Service (SMS).

Now there is a move to expand bundling in a big way, encompassing: prepaid and postpaid accounts; multiplay services that cross technologies; fixed and mobile accounts; broadband services (both fixed and mobile); multiple users within families and businesses; and offers featuring not just voice and SMS, but also content, location services, social networking, and Internet services.

Charging

Customers have typically paid for voice and SMS services based on network costs (access and duration).

Next generation services, like Location Based Services (LBS) and downloaded content (today's ringtones and tomorrow's video), will expand the charging possibilities. Charging will have to be service-based to accommodate such things as Virtual Private Networks (VPNs) and advanced content. Charging will also become more event-based, for instance, involving a flat fee to find a destination via the Global Positioning System (GPS) no matter how long it takes to get there. And there are other important charging models, such as "pay per day of use." We will also see "off-deck" charging for goods and services purchased from third parties that are not part of a network operator's portal.

The examples above, while new, reflect the familiar practice of charging for access to services. However, operators also understand that Internet experience has changed perceptions of what is fair, when it comes to paying. Users now expect that, sometimes, access should be bundled with content. For instance, if users were to browse the Internet on their smart phones to purchase content, they would expect to pay for the content but not for the time or bytes to scan catalog pages, and, of course, in the prepaid world, this charging decision has to happen in real time.

Revenue Sourcing

Revenue has traditionally come directly from individual end users, the consumers who purchase prepaid vouchers.

The prepaid world is now introducing shared accounts for businesses and families, funded by multiple users. Going forward, we are also sure to see subsidized and sponsored services. Content providers may subsidize content in exchange for promotional messages — for instance, sending a movie trailer with a downloaded video. Advertisers will also underwrite content. Prepaid can fit easily into this so-called two-sided business model, through which operators count both end users and sponsors/advertisers as customers.

Tariffing

Traditional tariff plans have been relatively simple, based on two categories: business/residential and peak/off peak. For the most part, within these two buckets, one size fits all.

Personalized tariff plans are coming, featuring special promotions for birthdays, other personal or business events, or public holidays, and deals based on users' own choice of peak and off-peak hours. Operators will also start to exercise control with real-time tariffing. One example is dynamic load-based tariffing through which they send targeted texts, offering immediate discounts when the network is quiet, to encourage calling.

Collecting

Prepaid has already matured to accommodate various, top-up payment mechanisms, including paper and electronic vouchers, cash, ATMs, electronic funds transfer, and direct debit from bank accounts or credit cards.

More is happening. Particularly in countries with limited banking infrastructure, prepaid top-up mechanisms could be used to pay for all of or part of users' postpaid bills. There is also interest in person-to-person micropayments — enabling people to act as brokers, who use their own prepaid accounts to transfer small amounts, even less than a dollar, to top-up other people's accounts.

Creating Services

Thus far, even highly advanced prepaid has been about charging for services that already exist in the network — voice, text messages, content, web browsing.

With the right prepaid environment, an operator will not only enable all of the options mentioned thus far, but also create new services right on their charging platforms, as part of the charging infrastructure. It is about personalizing and increasing users' interaction with the network by enriching prepaid to include such things as do-not-disturb service, targeted advertising, parental and enterprise controls, and premium rate calling.

Your Platform Can Be a Services Incubator

Many of the advancements described here seem obvious, mainly because we already see them at work in other communications venues, such as the postpaid mobile, fixed, and online worlds. But it is another thing entirely to activate them in the prepaid environment. Existing prepaid platforms were not built to manage the technical implications of advanced bundles, personalized payment options, and charging for some types of access and not others.

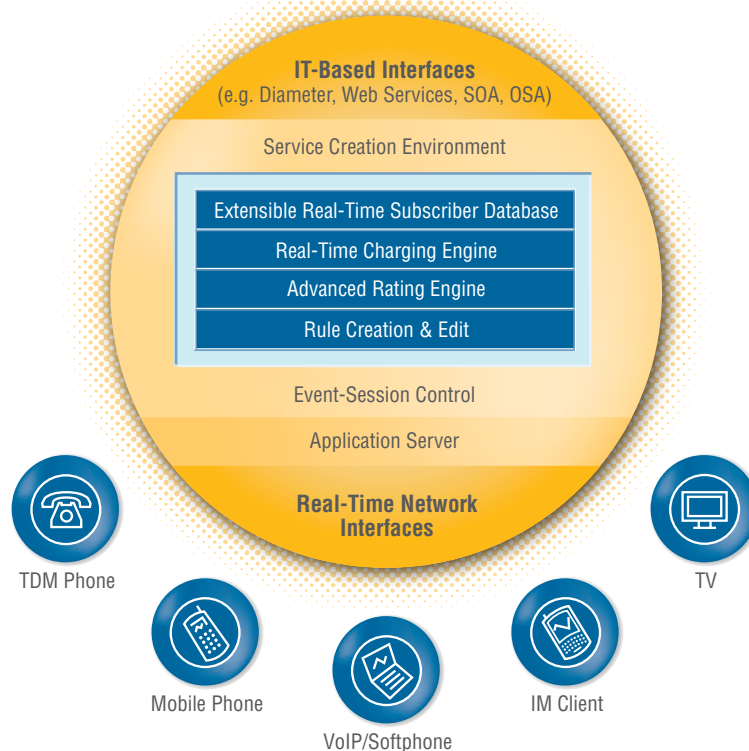


Figure 2 – Prepaid Is Changing Across the Board

To do all of these things, every operator, regardless of size, will need to evolve to a next generation environment, which includes four components:

1. **Service creation environment** that enables service differentiation and integration by allowing service providers to create applications or modify the vendor's pre-packaged applications.
2. **General-purpose application server** that replaces the "box" designed only for prepaid with a do-it-all platform that can run enhanced prepaid and converged applications while still being fully real time and highly available.
3. **Pre-created and pre-built services** enabling, for example, policy control, advertising, VPN, and number translation, so that operators do not have to create every service type from scratch.
4. **Charging engine** that has: an extensible database for capturing real-time information about subscribers and services in one place; a flexible rules-based rating engine that can apply dynamic, personalized information as transactions are happening; and assorted interfaces to integrate with IT protocols, web services, and service oriented architecture.

Traditionally operators deployed application servers separately from charging platforms with, at best, a real-time charging interface to connect the two. However, since service creation is essential to next generation prepaid, and real-time customer data is essential to next generation services, many operators are looking to combine the two into a service delivery platform.

For this reason, there are solutions that bundle the two together to make creation of new services faster and less expensive. By embedding the right graphical tools with the application server, various domains, such as marketing and IT departments, could produce prepaid services enriched with cross-product promotions, loyalty policies, sponsored content, ads, and cross-technology bundles.

Conclusion – Next Generation Prepaid Is at Hand

Prepaid is not a legacy capability that is moving toward retirement. It is a legacy capability that is ripe for evolution.

The opportunity to use the prepaid charging engine to enrich the customer experience is here and gaining steam. It is also, without doubt, a market development that will concern every operator, from the smallest Mobile Virtual Network Operators (MVNOs) to the largest converged providers, wherever they operate in the world.

Fortunately, evolving a prepaid platform to support converged services and features is not as daunting or expensive as some might think. There are solutions available today that are scalable and flexible enough to allow operators to migrate at their own pace, and sophisticated enough to support all the exciting developments we have mentioned here, as well as those that no one has imagined... yet.



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