# A Better Mobile Experience through Managing People, Process, and Technology

by Fareed Khan

The holiday season has drawn to a close, and while many consumers may have sworn off shopping as a new year's resolution, chances are that resolution won't last long, and most will be back in the mall or online with wallet in hand. For mobile operators, a valuable resolution may be to look at those shopping tendencies and habits, and apply those insights to their marketing strategies in the new year.

In the "old days," shopping meant multiple visits to multiple stores, such as the produce market for fruits and vegetables, the butcher shop for meat,

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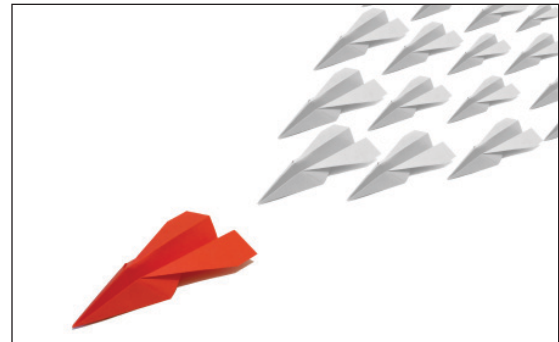
and the general store for milk and bread. Today, consumers expect to be able to do all their weekly grocery shopping in a single place, in a supermarket that stocks a wide range of products. A similar trend has emerged online, with online shoppers generally preferring the convenience of a site such as Amazon or Café Press that provides multiple products from a range of suppliers through a single storefront and payment system.

Mobile operators must adopt this model to successfully remain competitive while increasing revenue per user. Just as the convenience of having a single storefront—both brick-and-mortar and online for multiple goods– has prompted the emergence of

Not for distribution or reproduction.

superstores, the communications market is moving toward a similar model, in which an operator can act as a single source for multiple products and services for its subscribers—both its own and those of its partners.

But adopting that model is easier said that done, due in large part to mobile service providers' operational limitations. As operators have created new services, built out new networks, and expanded their footprints, they have ended up with back office environments specific to each network or service that typically mix legacy, commercial, and custom products. As a result, their so-called bundled services are actually more likely to be separate services, each with its own operational systems, presented with a single front end, but with little to no flexibility.

Evaluating our strengths

Retail consumers aren't likely to tolerate that lack of flexibility. Over time, mobile subscribers will become less tolerant, particularly in competitive markets with low barriers to churn. While most mobile operators recognize that fact, they are uncertain on how to address these limitations imposed by their back office systems, particularly given that pressures on capex

have put many ambitious OSS transformation projects on hold. However, mobile operators can take a more incremental approach without embarking on a full-scale back office transformation by investing in a few key systems, including the following:

Real-time revenue management

Most mobile operators launched their digital content services by primarily focusing on on-deck content, or "walled garden" models in which content is either created internally or provided via tightly controlled relationships with third-party content partners. However, consumer demand for a wider ecosystem of content has led many mobile operators to build more open environments via service delivery platforms that enable content developers to create and publish innovative new services out to subscribers. These

environments necessitate the ability to do real-time charging and settlement both with the content partner and with the customer to ensure that there is no revenue left on the table after the transaction is completed.

Subscriber data centralization

Mobile operators have a wealth of subscriber information on hand that is stored across a wide range of systems, from CRM and billing to provisioning to network databases, such as HLR, and IT directories, such as LDAP. The disconnected nature of this subscriber data makes it nearly impossible to gain a centralized view of the subscriber, which results in limiting the operator's ability to do any sort of innovative cross-sell or upsell marketing initiatives. Going back to the supermarket example, this situation would be analogous to a store having visibility into your dairy purchases, but not your meat purchases; the ability to look at and analyze the customer's complete purchase history is what enables the store to be able to offer personalized promotions or coupons designed to increase overall spend and improve customer loyalty.

Dynamic policy control

Policy management, once characterized by static rules for network traffic management, has evolved into real-time control capabilities that enable operators to deliver innovative, value-added services such as advanced parental controls or bandwidth boosting. Next-generation policy control can also be used to support more innovative business models, such as bundling guaranteed bandwidth with specific applications like online gaming that relies on a certain quality of service, or with e-books as Amazon does with its Kindle product.

Agile service fulfillment

If mobile operators want to make their businesses more customer-centric, they must implement a fulfillment system that is able to handle workflow processes in a fast, agile and dynamic manner, enabling operators to introduce new products and

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services more quickly and flexibly. A centralized service fulfillment platform that effectively abstracts the complexity of the underlying network from the product creation and delivery processes is a key component of mobile operators' ability to offer a more dynamic service offering.

Extending the reach

In implementing a fulfillment solution, the mobile operator should pay particular attention to the product catalog. Historically, product and service information has been distributed throughout multiple systems within the mobile operator's back office environment, which makes it difficult to create a single view of product information for the subscriber. Yet, the product catalog is one of the most important points at which the operator and the subscriber interact. As networks and services converge, it becomes increasingly important that subscribers be able to have a consistent ordering experience, regardless of how they're conducting that interaction (for example, online vs. through a smartphone interface vs. a customer service representative). The product catalog is an essential tool in guaranteeing that experience.

A central master catalog is also the transformation catalyst within the Communication Service Provider (CSP) to integrate departments and systems. The catalog would provide a single view of products, services, and resources from marketing and IT perspectives.

All product catalogs are not the same. What features are important to enable this differentiated mobile experience?

- Dynamic, real-time service inventory that abstracts the product catalog (the actual

offering provided to the subscriber at a certain price) from the service catalog (the functionality that the network can provide). For example, though VoIP would be part of the service catalog, a residential VoIP offering would be included in the product catalog. Insulating commercial offerings from technical products means services can be created and ordered without knowledge of the underlying network, enabling more flexible services that can easily be tailored to a subscriber's individual needs.

- A central definition of the product and service portfolio via a central product catalog, which enables the synchronization of multiple parts of the SDP ecosystem, such as CRM, billing, order management, and any relevant network elements. Enabling a consistent customer experience for all products and services, from devices, accessories, and content, to complex bundles and pricing plans.

- Catalog-based service delivery with the ability to expose partner services to customers for self-care, but also to partners as part of a network asset exposure strategy – let content partners, mobile advertisers, etc. know what sort of capabilities are commercially available, such as location and presence APIs, with details around retail and wholesale charges.

- Product and promotion in the hands of marketing, and not IT. The creative and unique offerings will come from internal marketing and external partners. They need the ability to do real-time bundling and promotions based on past usage, maintain control over product and promotion introduction, dictate maintenance processes, configure cross or up-sell business rules; these bundles and promotions could work equally well for new and existing customers if presented to customers during the ordering process through order capture systems.

- Shorter time-to-market means more time for building more focused offers and promotions that target dedicated market segments, such as students, teenagers, families, etc. In a modern marketplace where the customer is king, providing more customized, on-demand offers within a shorter time-to-market will...

- Platform for building complex offer structures like triple and/or quad-play bundles, with seamless integration of content (apps, videos, mp3 tunes, etc.) in the Offer-Product-Service-Resource structures. Furthermore, a mature central catalog can support for complex pricing scenarios, e.g. content bundling, attribute-based pricing for usage charges (time-of-day, region, content type etc.).

As we set our targets for the next growth cycle, the NGOSS transformations that will drive better monetization strategies will include:

- Advanced bundling of services such as digital content with service plans: Making inherited product and service bundles a true differentiator.

- Providing a full end-to-end application experience model: Self-care to call-center-desktops with a consistent product, service, offer, and bundle experience.

- Smart policy and offer-controlled decision capability that drives cash: Encourage ideal customer behavior (off-peak usage, etc.) and discourage problematic customer behavior (throttle usage, charge for overage) through successful CRM, BSS, and OSS.

Achieving a successful wireless transformation that drives the new customer experience cannot be done in a single implementation, but it can be done in a program that carefully manages people, process, and technology through federation, consolidation, and evolution.