

Monetizing BSS-to-SDP Integration

By Fareed Khan, ConceptWave

The ability to assemble service components like presence/location, integration, and media control is crucial if operators are to enable service “mashups” that innovate, entertain and empower customers. Offering such services is a necessity if operators are to stave off disintermediation by OTT players and improve thinning margins in core services.

Exposing BSS

Much of the effort around mashups has focused on what operators should do to expose networks to 3rd party developers. But more can be done to expose capabilities from operators' BSS environments that enhance customer-experience. The evolution of Web

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Services and gateways like ParlayX, SIP and standard interfaces will foster better communication among BSS functions, like order management, product catalogs, billing, and charging, and IP, PSTN, mobile and cable networks.

For example, today, order management systems orchestrate orders as they come in from front-end systems and travel to activation, billing, inventory and charging. There is an opportunity for monetization here. Everything is managed through a secure order process with carefully designed workflows that can be updated at any time. As a result, all orchestration and SDP-related order decomposition can be handled as part of the order process. This can be valuable to partners or

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MVNOs that want to view SDP services, via a catalog, and place orders for services leveraging the operator's infrastructure. Potentially, the service could be billed and activated by operators' order management systems as part of their wholesale bundles or offerings.

Integration will be critical to the communication between SDP and BSS. A few years ago SDPs were hyped as "horizontal" or "common" layers across which services could be created and orchestrated and where the complexity of service stove-pipes could be abstracted. Today, however, there is an opportunity for SDPs to provide aggregation layers through which operators' sophisticated BSS capabilities are exposed to 3rd parties. 3rd parties would in turn pay for the opportunity to leverage operators' dynamic catalogs, and ordering, provisioning, billing, charging, payments and customer care systems.

The potential for monetization goes further, as more non-traditional players, such as banks and utilities, look for ways to extend their services into the telecom industry. To accommodate these and other potential partners or customers, operators must abandon any silo pattern of doing business in favor of a more integrated approach. They need to focus on opening up a path of least resistance to 3rd parties seeking partners experienced with not only networks and BSS, but also partnership management, settlement, and SLA management—all increasingly important in next-gen services. If operators can consolidate service access points and stop the practice of managing multiple silos and solutions for every service, they can become coveted as key "enablers" to 3rd parties and consumers alike.

The Path of Most Resistance

Because operators have been racing to create new revenue streams, they have continued to create services in silos, resulting in a maze of integration points, access portals, and brittle lifecycle management processes that make things tougher for partners. "Thinking from a 3rd party service provider perspective," says Lucia Gradinariu, founder and principal consultant at LGG Solutions, LLC, "this is very difficult to navigate in creating new experiences for end consumers. What company in their right mind would try to work through a telco's operational maze if they can get to the end consumer more directly through another

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channel?" This, Gradinariu says, explains the over-the-top challenge carriers face today.

Though operators have been able to coast a bit on what Gradinariu terms a "Golden Pipe" strategy of selling high-speed and mobile Internet access, which she says will grow into a \$1 trillion business by 2015, the relief is only temporary. "Operators have to bring in an additional \$1 to 2 trillion in the next five to 10 years to replace current revenue from core business" that is already declining, she says.

By itself, exposing core SDP functionality won't be enough. As everything migrates to e2e IP, telco prices for voice will have to match up to Skype and Google offerings—that is, if the entire voice world isn't replaced by new forms of communications entertained today by social networks such as Facebook or Tencent. For that reason, opening up the network to 3rd party developers and app stores might be part of a solution, but it won't be the complete solution. In fact, attempts to do so might serve to further emphasize the difficulties of integrating developer mindsets with consumer mindsets in operator environments.

"Revenue sharing with millions of partners, 'Freemium' business models based on 'in App' payment, and multiple types of payments are costly to realize in the operator domain," says Gradinariu. She notes that the complexity 3rd parties experience when attempting to work with operators may become the real driver for business transformation and tighter integration between SDP and BSS. Some of the key "enablers" to make these relationships work sit within the SDP, and others within BSS.

Integrating SDP with BSS

It's already become clear that best practices for integration around SOA, Open APIs, and common data models have helped operators, but at times have also generated more work, cost and complexity than initially anticipated. Some believe, therefore, that the collusion of next-gen SDP and BSS will shape platforms that drive new business development in cross-industry service, content, and application innovations. They believe in the integration of NGSDP and NGBSS as a means to help operators expose assets and relationships more cost effectively. That would help organizations of all types (operators or 3rd party) to create new services and offerings, or at least to contribute components of new services and offerings.

For operators, exposure of BSS capabilities alongside SDPs will possibly help them monetize existing investments, systems, and experiences. It can also help stimulate service innovation by their own people, who need new and faster ways to combine key components of product catalogs into services. By combining Web Services with assets from third parties, it is possible that marketing and product development teams can piece together service components and integrate them into a comprehensive master product catalog—one capable of offering more compelling characteristics that can be assembled in different ways for existing and future services.

Because a single transaction today can include voice, video, data, and application transmissions that cross multiple OSS and BSS systems, the ability to deliver and assure carrier-grade availability and performance levels will be of paramount importance. That will further magnify the importance of the SDP as a means for key audiences internal to the operator—such as operations teams—to resolve service issues quickly and avoid finger-pointing when services perform poorly.

Building Flow-Through Provisioning

Other than assuring service performance and fostering accountability among value-chain partners, integrating SDP and BSS can bring benefits such as flow-through provisioning. “If product catalogs can become an integral part of the SDP, then there emerges an important integration point between the SDP and BSS,” explains Shira Levine, directing analyst, next-gen OSS

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and policy, Infonetics Research.

Levine believes the catalog should reside not in the SDP, but in BSS for the purpose of faster provisioning. “As telecommunications architectures converge around IP and IT standards, the SDP's integration with BSS will become all the more important to flow-through provisioning and the creation and provisioning of services that have to populate growing catalogs.”

Levine also notes that the IBM, HP, and Accenture increasingly talk of hooking SDP into BSS. Additionally, most BSS vendors have created some form of end-user communication or some form of exposure of capabilities in BSS using their SDPs. The point is that operators want to expose functionality on the one side to users and on the other to partners developing mobile broadband applications. They can, for example, expose messaging capabilities so that SMS or MMS can become part of an OTT app to help people see the status of their accounts or to modify or make changes to their services.

Exposing Real-Time Billing and Charging

As operators accomplish more with variable billing and charging, and real-time orchestration and charging for applications, SDPs will play a bigger role in bringing real-time capabilities to market and fostering closer ties between customers and BSS capabilities. With app stores, IMS and LTE, it will become increasingly important for operators to organize their assets via a master catalog, and provision access to the assets using their ordering systems.

Those catalogs will answer to customers' demands, which include more premium and value-add services and more control over services and expenses. Because customers want more options for payments, whether online or offline, customer experience will increase in importance as part of a dynamic order model. As demands for convergent charging and billing increase, they must become an integral part of the SDP, to expose to users the experience they want and

expose to developers the BSS capabilities they need.

The SDP will therefore play an important role in maintaining customer satisfaction at those times that are critical to the perception of quality and customer experience—when subscribing, when consuming, when topping up shrinking credit, when using promotions, when spending at peak times, and during any occasion where there might otherwise be a risk of customer churn.

A Path to Two-sided Business Models

For all of the reasons discussed above, many believe SDP components will be more closely integrated with BSS. On one side are the network and gateway layers: adapters to networks; and service and application middleware (identity management, content management, Web Services, device management). And on the other side are BSS components: business rules, OSS/BSS support, and integrated CRM/PRM.

CSPs are going through transformations to bring

systems together for more efficiency. Key to the transformations are product catalogs, which help provide a consistent experience to customers across the board. What a customer sees is what a partner provides, is what a CSR supports, and is what an IT person has enabled. A consistent view can only be bolstered by integration of BSS and SDPs, and will help operators handle the acceleration of demand for applications, and help simplify the process of app development across multiple platforms. That can help ensure the most robust and expedient choices possible for customers—consumer, enterprise, and 3rd party.

With integration of SDP and BSS, operators will be able to expose parts of their environments to third-party ecosystems when composing new services. They will participate as an enabler in a two-sided business model where exposure of assets like call control, location, and messaging to third-party developers will mean more value as partners to 3rd parties and to consumers of the services 3rd parties create.

About ConceptWave: ConceptWave is a leading provider of customer, product, and order lifecycle management solutions that enable communications service providers to rapidly introduce new market offers and to empower superior customer experience. ConceptWave's unique offer is to provide an end-to-end catalog-driven suite of order fulfillment automation software with ConceptWave Order Care and Rapid CRM. ConceptWave products and solutions enable service providers to address competitive requirements and simplify the management of customers, products, and orders, for any product, on any network, in any market, using any channel. ConceptWave is headquartered in Toronto with presence in Americas, Europe and Asia.