SERVICE DELIVERY

Market evolution forces vendors to rethink service-delivery strategies

A year or so ago, it was clear how mobile and fixed operators would deliver next-generation services over IP networks. They would buy end-to-end service-delivery platforms (SDPs) from single vendors or from network-equipment providers that offered fully integrated platforms acquired from a number of niche vendors. Operators would then develop services to run over the platforms and would eventually migrate to IMS. The process would be driven by operators' desire to roll out customer services on the fly, modify them at will, bill for them in real time and, of course, make lots of money in the process.

Although the operators' goals have remained the same, the means of achieving them now look more different than most industry players could have imagined. In the past few months, a healthy dose of reality has kicked in, and a different scenario is beginning to emerge.

End-to-end or bit-by-bit?

The concept of the end-to-end SDP developed and supplied by a single vendor has largely fallen out of favor. Although operators are still eager to reduce the number of firms that supply their SDP components – to minimize investment and support cost, decrease the need for systems integration and reduce the business risk and costs related to dealing with a large number of vendors – they are wary of being locked in with a single supplier.

The problem is that service-delivery systems require a large number of separate components, such as network-connectivity gateways, billing proxies, provisioning tools, service-access gateways, digital-rights management, service discovery, content and download management, product-life-cycle management and storage and access of customer-profile data. Because of this complexity, even large suppliers are not developing entire SDPs in-house, instead using a wide range of partners to produce a broader offering. But the supplier is responsible for integrating the different building blocks, relieving the operator of the need to do so itself or employ a systems integrator.

"Operators shun the need to consult a double-digit number of technology providers to form an integrated mobile-content-service experience," said Jay Seaton, chief marketing officer at Airwide Solutions. "Getting a readily integrated, productized solution for mobile content delivery is seen to decrease the required investment; ease and speed up the implementation phase; simplify operations and maintenance; and, most importantly, save running costs."

The tendency for operators to avoid using only one vendor might not be good news for the likes of Oracle – which offers a single platform composed of elements produced by the several niche telecoms-software vendors it has acquired – but for small vendors who have managed to remain independent, things could not be better.

Jonathan Bell, vice president of product marketing at Opencloud, says his company's product, a real-time application server, is embedded in a number of network-equipment vendors' SDP offerings and is also sold directly to operators as an SDP core component. He adds that when Opencloud is able to sell to an operator directly, it is because the operator is adopting a "pragmatic" implementation of an SDP, indicating that although some operators are looking to install a complete SDP, others want to buy only what they need.

Bell says some operators might start out with the intention of procuring a complete SDP but change their minds. "We have seen integrated SDP RFI/RFP processes start at the 'complete, integrated solution' end and evolve into selective procurement of a few key pieces, such as the real-time application server," he said. "On balance, we have probably seen more interest in pragmatic component purchases than end-to-end SDPs."

Dana Porter, vice president at Amdocs, also says some operators are taking a pared-down approach to procuring SDPs. She says they are gradually shifting focus to products that can provide immediate value, rather than seeking a full, technology-oriented system.

She says operators are realizing that success is contingent on being able to provide an innovative, consistent and integrated customer experience, leading them to focus on the elements that will most help them deliver superior services to their customers. "In many cases, this does not lead to a fully deployed end-to-end SDP solution, but rather the implementation of some major elements for the VAS [value-added services] which will serve their customers," she said.

At an SDP conference last year hosted by *3GWB* publisher Informa Telecoms & Media, many delegates said the end-to-end SDP was not what most operators wanted and that they were instead looking for an integrated service-delivery framework (SDF), which would enable them to implement various elements when they are required.

David Webby, who works on Nokia Siemens Networks' SDF program, says the sheer complexity of creating a service-delivery environment is forcing operators to take a piecemeal approach. "Operators are convinced of the general benefits promised by a comprehensive SDF platform, which include component reusability, leading to decreased costs and time-to-market, but the size and complexity of large-scale deployment have meant that only a limited number of components are being deployed initially," he said.

Another major shift in thinking has taken place in the nature of services that are being rolled out in the evolving service-delivery sector.

"SDPs have traditionally been used to deliver content-based services, such as ring tones and wallpapers, via messaging interfaces, but this is now evolving towards more-elaborate, real-time services that utilize more elements of a network's functionality," said Michael Crossey, vice president of marketing at Aepona.

The problem with this new breed of services is that most network operators don't have the skill to develop them. The more-pragmatic operators are seeking to create developer ecosystems and open their networks to new talent.

"Today, we are seeing services originating from the network level, such as personalized ring-back tones, missed-call notifications, 'call me back' and 'notify me' services," Porter says. "While there are currently many successful examples of services that can be supported out of the box with SDPs, it's vital to create the environment that will enable innovation."

Ty Wang, Oracle's senior director of product management for the vendor's voice, mobility and communications platform, says some operators are attempting to create just such an environment.

"Operators need to get third-party application developers on board and therefore need to embrace telco 2.0," he said. "We have some enlightened customers, but only a few. These include BT and Korea Telecom Freetel. These operators want to be significant players in the world of web 2.0 and are actively encouraging third-party service developers."

Oracle and BT are working on a joint initiative, the BT Innovation Platform, which is designed to be the service-creation and -execution platform for applications running over BT's 21CN IP network. The idea is to offer application-programming interfaces via Oracle's SDP – effectively an extension of Oracle's Fusion middleware platform – to enable third parties to develop applications for network functions including OSS/BSS, billing, CRM and network provisioning.

Tools available to developers are set to include Parlay-X Web Services, SIP, Business Process Execution Language and presence. Authentication, authorization and accounting functions are set to be accessible via a Diameter protocol stack.

Wang says BT will be able to deploy services based on the Innovation Platform by the end of 2008.

Last week, BT announced the release of voice- and data-integration web service CallFlow as a software-development kit that can be downloaded from the company's web site. The UK incumbent said that CallFlow uses interactive voice response to enable developers to integrate voice functionality into web services with a single line of code. CallFlow is the latest addition to the company's web-service platform, which enables applications to use messaging, conference-call, voice-call and authentication services and SMSes sent from users.

"Our web services allow developers to harness BT's multibillion-dollar investment in the 21st Century Network and focus on developing applications without having to worry about the complexity of how to enable communications," J.P. Rangaswami, managing director of service design at BT, wrote in a statement. "What used to take weeks now takes minutes, and with just one line of code, anyone working for a customer or a partner can add voice and messaging into their web 2.0 applications."

So what about IMS?

The development of service-delivery technology beyond merely a means to deploy traditional telco services efficiently and cost-effectively has implications for IMS. Will the expanded functionality of SDPs supplant it?

"IMS and SDPs can be seen as complementary," Aepona's Crossey says. "IMS enables a richer set of network capabilities that can be exposed to the SDP/service layer." He adds, however, that SDPs are not dependent on IMS and that they can be used to exploit existing network features and assets – such as call control, location, presence, profile, messaging and rating/charging.

Airwide's Seaton says SDPs are a bridge between what operators have today and what they can have tomorrow. "Operators do not have to wait for IMS," he said. "Instead, they can leverage the existing investment they have already made in their infrastructure to build a modular design which supports next-generation messaging services, adds capacity, storage and other elements specifically when needed."

He added that SDPs enable operators to create tiers of separately scalable components, enabling them to buy what they need when they need it. Most importantly, he says, SDPs provide a practical and controlled approach to IMS without disrupting an operator's messaging network or billing, reporting and management elements. He says such platforms are an affordable steppingstone toward an IMS architecture that embraces voice, SMS, MMS and other next-generation technologies that will help operators continue to increase revenues in an environment of falling margins.

Amdocs' Porter says SDPs and IMS will coexist in the future telco environment. She says the main priority for service providers is to decrease the time-to-market of new services and to ensure that every experience the customer has with the service provider is positive.

"To this end, operators are trying multiple technologies and initiatives, one of which is IMS and another is SDPs," she says. "It makes sense to assume that IMS implementation will accelerate and enable the introduction of many more new services which will impact the requirements of SDPs."

She added that SDPs and IMS are just two of many technologies that can be deployed to achieve the same aims. "In both cases, operators must make sure they enable end-to-end processes across new and existing systems and platforms," she says.

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