The Service Delivery Platform Is Dead. Long Live SDP 2.0!

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Service delivery platforms (SDPs) have emerged as critical, strategic tools for service providers. If an SDP is to continue to help providers meet their needs in the coming years, however, such solutions must adapt to the ever-changing technology and consumer environment. This Accenture analysis argues that first-generation SDPs have now run their course. Companies that expect to achieve and sustain high performance in the coming years must make the leap to the next generation—to SDP 2.0.

The communications, high-tech, and media industries are facing a period of unprecedented change as the traditional lines separating their marketplaces blur and disappear in an age of convergence. As the Internet protocol (IP) ecosystem converges in the service space, new competition is emerging from companies with strong brands and a loyal customer base. The resulting hyper-competition places enormous pressure on companies to set a path toward high performance based on a transformed ability to innovate and roll out profitable services as quickly as possible to capture market share and fuel growth.

Over the past half-decade, SDPs have emerged as a critical, strategic element for service providers looking for an edge when it comes to driving faster speeds to market for new products and services. An SDP is a standardized service creation and execution architecture that accelerates the introduction of new applications and services. It provides a common set of functions and a common way of viewing the underlying network. The benefits of such an end-to-end solution are that it creates a dynamic, demand-driven developer community with incentives and tools for rapid innovation. With an effective SDP, operators have the opportunity to reduce service creation costs, accelerate the development cycle for mobile applications, increase the variety and nature of applications, promote service reuse, and reduce their proportionate business risk within their total application portfolio.

If an SDP is to continue to help providers meet their needs in the coming years, however, such solutions must adapt to the ever-changing technology and consumer environment. Accenture believes that first-generation SDPs have now run their course. Companies that expect to achieve and sustain high performance in the coming years must make the leap to the next generation—to SDP 2.0.

Today's Complex Service Creation and Delivery Environment

For several reasons, the service creation and delivery environment has outpaced the ability of traditional SDP to keep up. One reason, as already noted, is because of new players crossing over into market spaces traditionally dominated by telcos. Companies such as Google, Microsoft, Apple, and Yahoo are entering the digital ecosystem, which is causing traditional telcos to reexamine their business and operating models to achieve greater speed in service innovation.

The growing need to collaborate with other companies to create compelling innovations is also a factor. A recent survey conducted by Accenture with the Economist Intelligence Unit showed, for example, that 60 percent of service providers had more than 10 co-design partners per product development project. Such a collaborative development environment increases the chances for innovation but also introduces more risk and, potentially, more cost unless steps are taken to make the environment more efficient and effective. Companies constantly seek to reduce and make more predictable their capital and operating costs. So pressure mounts to transform service innovation and streamline and industrialize the service delivery process. Finally, providers must create consumer services that build upon a suite of capabilities that, together, have been dubbed "Web 2.0."

Today's Internet environment, especially as it intersects with wireless and broadband services, is creating an unprecedented wave of user-generated content and services that treat the consumer not just as an individual, but as part of a larger social fabric of extended family, friends, and colleagues. A recent Accenture study, "Mastering Social

Ecosystem Marketing," found that companies must understand more deeply the influences that social networks and household types have on customers' buying behaviors. Such an understanding, paired with sophisticated analytic tools and dashboards, can drive revenue and profitability growth and can improve loyalty and customer retention—if, that is, companies can create innovative services that can easily and smoothly flow across the "three screens" of the typical consumer today: mobile device, computer, and television. Evolving an SDP to account for this complex, three-screen development environment is a challenge that must be met if providers are to achieve and sustain high performance in the age of convergence.

Four Functional Groupings for SDP 2.0

Accenture's vision for a new SDP—what we call "SDP 2.0"—makes possible faster, more cost-effective, and lower-risk service development in a converged service provider environment. An SDP must enable and bring together the following four primary functional groupings:

1. Access is the entrance point to the SDP world. The applications within this layer enable the management and control of the SDP capabilities from a user-interface point of view.
2. Enablers provide a set of service building blocks that are generally common to all services that are exposed by the SDP.
3. Services are composite services built by combining multiple enablers. A composite service consists of functionality drawn from several enablers in a service-oriented architecture (SOA). The components may be individual Web services, selected functions from other applications, or entire systems whose outputs have been packaged as Web services (often legacy systems).
4. Core provides a centralized business support system by integrated process flows and business logic. It also provides synergy across services, users, profiles, and subscriptions that are dynamically created, configured, and provisioned by using a set of profile definitions.

This framework (see *Figure 1*) creates a compelling, cost-effective environment for service development across multiple activities and technologies in the IP ecosystem:

Convergent Three-Screen Offers
The ultimate goal of SDP 2.0 is the development of innovative, convergent offers—triple plays or quadruple plays—across the consumer's three screens. One important objective of SDP 2.0 is to capture the elusive "first screen" of the consumer—to be the primary conduit for communications, commerce, and social interaction in a wireless broadband, all–IP world.

Device Platforms
At the next layer of the framework are the device platforms containing the operating system and the enabling middleware. Equally important are the embedded applications focused on creating a compelling user experience across multiple devices.

Multichannel Customer Portals
Essential to creating differentiated and customer-centric capabilities via SDP 2.0 is the customer portal—multichannel applications that enable the creation, sharing, and distribution of personalized content, as well as access to self-service capabilities. Portals provide broad functionality for success in the Web 2.0 world, where the need to find information, connect to others, and communicate and collaborate in real time is more often an essential capability companies must provide. From the service providers' perspective, portals enable the segmentation, aggregation, and delivery of rich media, communications, and service experiences while driving customer service costs down.

Profitable Services
Obviously, SDP 2.0 must support powerful capabilities for consumers: voice, video, and other content; social communities; search and navigation; and a variety of self-service customer care activities not only to hold down costs, but also to provide the kind of real-time service consumers are asking for.

FIGURE 1
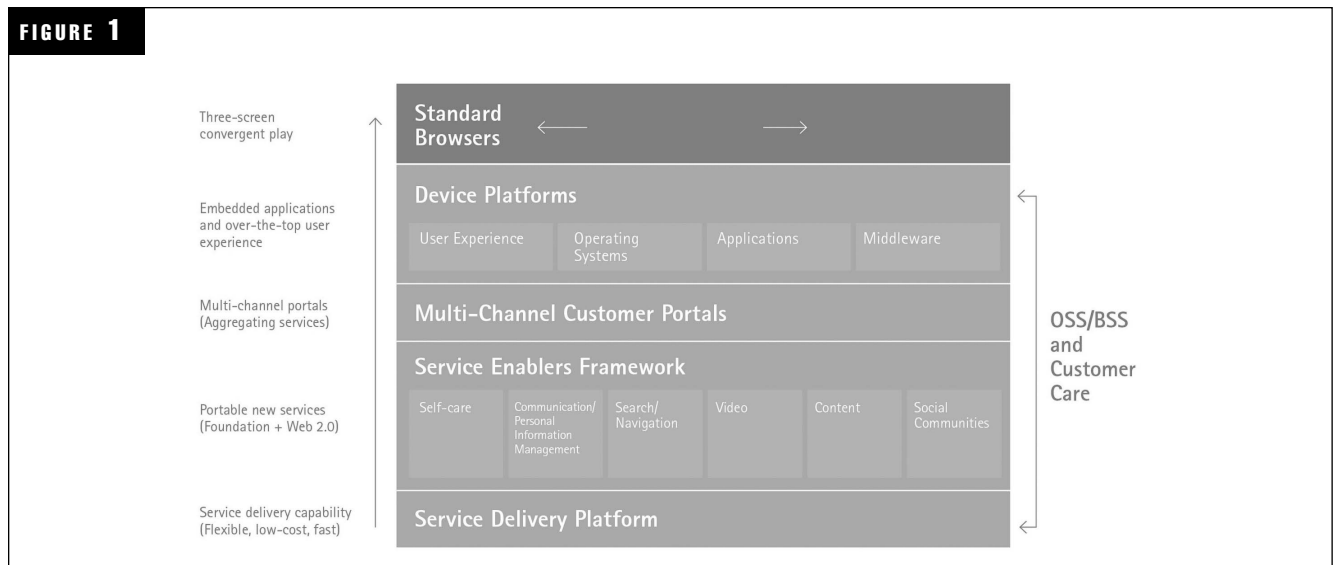
Service Delivery Platform Foundation
SDP 2.0 builds on all the functions and features, including the following, that have made SDPs essential tools from the beginning:

- Support for dynamic, flexible creation of end-user services that run over networks
- Reduced business and financial risks in service development
- Consistent provision of services to end users
- Controls over the execution of those services to make them cost-effective

To those basic services, SDP 2.0 adds vital new capabilities such as on-boarding, unified user information, flexible policy management, full service management and control, and open service creation environment. It also enables things such as mash-ups, mobile widgets, application presence, network presence, and location-based services.

Other critical supporting features of SDP 2.0 are as follows:

- Third-party gateway to expose Web services to the community of developers in a secure and policy-controlled way.
- Third-party on-boarding capabilities to manage the service creation process and operations
- Service enabler exposure to expand the 2.0 partner ecosystem, enabling the mash-up of network-specific capabilities such as location and presence with other services from multiple external providers
- Support for the end-to-end process (qualification, on-boarding, validation, and deployment of final users)
- Support for different operating and business models with third parties

Are You Ready for SDP 2.0?

We believe that an important first step for companies as they pursue SDP 2.0 is to conduct a rapid diagnostic of their existing SDP capabilities. The assessment should cover several relevant areas such as the following:

- Architecture/technology
- Governance framework
- Service delivery organization and processes
- Available resources and skills
- Collaborative capabilities between global and local levels as well as operating companies, if applicable

Data for the diagnostic is gathered in a number of ways, including interviews with key stakeholders, reviews of relevant documentation, and analyses of industry benchmarks and trends.

What Does SDP 2.0 Look Like in an Actual Implementation?

Turkcell, a major European mobile communications provider and the leading operator in Turkey, recently upgraded its SDP architecture to facilitate new subscriber offerings such as music downloads, data services, and transfers of digital photography. The purpose of Turkcell's technology architecture upgrade was to create infrastructures and processes that support the rapid rollout of innovative software-based services to its customers. The architecture upgrade had the following goals:

- Decreasing product development time
- Reducing time spent creating and introducing new subscriber services to market
- Providing improved coordination of the new services and offerings across multiple platforms to help facilitate an uninterrupted user experience
- Lowering long-term requirements for capital expenditure around service delivery

"Our customers count on us to be first to market with creative and compelling wireless services," said Cenk Bayrakdar, Turkcell's chief service and product officer. "This new platform enhances our ability to deliver both our own services and those of the world's leading content developers. It reduces the time our customers have to wait to enjoy the latest breakthroughs in wireless applications and better positions us to exploit the proliferation of leading-edge services that will be available in Turkey in the months and years ahead."

A year after the launch, 50 application service providers and 53 content providers were able to offer more than 180 revenue-generating services over Turkcell's network. Examples of innovation applications are Internet access and browsing, ringback tones, unified messaging, instant messaging, and Internet "push information" services such as news, weather updates, and entertainment. Services such as these demonstrate how Turkcell's service delivery architecture can act as a powerful enabler of innovation between operators and the development community, resulting in a richer set of applications to benefit end users.

Turkcell was able to significantly advance its ability to offer compelling services across multiple networks by using common IP standards. This approach gave them a competitive advantage and enabled them to seize the IP convergence opportunities in today's fiercely competitive marketplace. Other benefits achieved include the following:

- A reduction in time required to bring new services to market from several days to one day.
- Increased subscriber usage of on-line services: just one month after the launch, wireless application portal usage rose nearly 3,000 percent.

Keys to Success with SDP 2.0 Implementations

Turkcell and other providers that have worked to evolve their SDPs toward 2.0 capabilities have found it important to bear in mind the following keys to success.

Clearly Define SDP Component Priorities
Use a classification based on the four key functional groups discussed here: access, enablers, services, and core. Such an approach supports the clear identification of priorities to be mapped onto phased deliveries by identifying, prioritizing, and linking business requirements for new services to SDP building blocks. This approach also avoids the temptation of a big-bang approach to implementation, which is very difficult to manage.

Prevent the Identification of the SDP with Only a Limited Set of Specific Services

In a 2.0 world, the SDP does not implement services by itself; rather, it provides the foundation and the capabilities to create, execute, and support services. This vision eliminates the risk of designing an SDP point solution (which would enable just one or a few services) while enabling a service creation process that is aware of SDP components— that is, which components are needed to enable which services.

Link SDP Capabilities to Services

Linking core, access, and enabler capabilities to services allows companies to align business priorities with the availability of the required capabilities while speeding up definition of the SDP target architecture.

SDP 2.0 and the Quest for High Performance

Leading service providers today are focused on growth— which, in turn, demands more effective service innovation and more rapid service creation to cope with a hyper-competitive marketplace. Developing SDP 2.0 capabilities gives providers the opportunity to drive toward high performance by mitigating development and delivery risks and speeding new services to market—all while lowering costs and helping to increase the impact of limited resources.