

# HP Service Delivery Platform (HP SDP) blueprint

A solution brief from HP



Record—and still escalating—demand for current and next-generation services presents network operators with both exciting opportunities for expanded revenue streams as well as significant technical and operational challenges. While consumers race to sign up for the services that enhance the ways they live, work and play, network operators are forced to address ever more complex infrastructure and business environments.

Introducing profitable new services quickly and delivering them efficiently to subscribers across wireless, wireline and broadband connections is taxing legacy systems and forcing major redefinitions of operators' business models. The higher costs of running the heterogeneous environments typically found with network operators encompass more than human and financial resources; a more costly loss is the vital business agility necessary to keep ahead of the competition.

The marketplace demands that network operators:

- Introduce new services faster, and with less risk and cost
- Address niche subscriber groups with rich, personalized services
- Leverage common service resources to create tailored end-user services
- Keep solution validation simple and repeatable to increase efficiency
- Tap the larger development community for new services and revenue

## HP has the answer—the HP Service Delivery Platform (HP SDP) blueprint

Service Delivery Platform (SDP) is HP's blueprint for developing, provisioning, and deploying standards-based end-user across multiple network types—fixed, mobile, and broadband—and generations-2G/2.5G/3G/IMS. The blueprint addresses the entirety of service delivery, including Web and real-time IMS services, from the core network to the edge and onto the end-user's device of choice.

# The pressure is on network operators to deliver

Secure, operator-defined levels of access to network elements provided by HP SDP allows operators to safely open the network and easily extend service development opportunities to the vast field of content and application developers who are eager to share the risks and rewards of introducing new services. Deploying services within this blueprint allows carriers to reach the market faster with new niche services, reduces the risks and complexity of deploying services, simplifies service interaction, and eases service management, all positively impacting revenues and reducing costs.

## Features

### • Standards-based development environment

Common service development toolsets make it easy for developers to integrate telecom and IT functionality into their applications and core business processes. These toolsets include Parlay X, Parlay, .NET, Java, and SIP.

### • Automated partner management ecosystem

HP provides a scalable and automated partner management ecosystem with well-defined security and policy management mechanisms. It enables network operators to efficiently manage a vast ecosystem of internal and external application partners, and serves as a central platform where services can be registered, provisioned and managed.

### • Reliable revenue sharing model for content providers

HP SDP enables ISVs to quickly and easily integrate with the operator's network without compromising security. Removing obstacles and reducing the cost of introducing services creates loyalty among developers and widens the appeal of the network operator's brand.

### • Defined service interaction methodology

Simple services, like location, presence, or conferencing, can be leveraged for multiple end-user services. SDP defines how these services are implemented within the SDP blueprint, how they interact with one another, and how they tie into operations and business support systems. Defining these interfaces reduces operational complexity and expense, while increasing the operator's agility.

### • Supports multiple underlying network architectures

SDP enables operators and their partners to develop end-user services once and deploy them over multiple underlying network architectures, such as Intelligent Network and IP Multimedia Subsystem. This reduces development costs and improves revenues as services are more effectively scaled.

## Benefits

### • Shorten time to market for faster return on investment (ROI)

HP SDP's well-defined, standard APIs and common developers' toolsets dramatically shorten the time needed to develop, integrate, validate, and deploy services. HP SDP defines the integration with network elements, OSS, and BSS systems to allow quicker rollouts. Services can be delivered faster, maximizing subscriber adoption and revenue generation. And HP SDP can revitalize existing services by bundling them with other service offerings to create new, more sophisticated services for maximum ROI.

### • Reduce costs

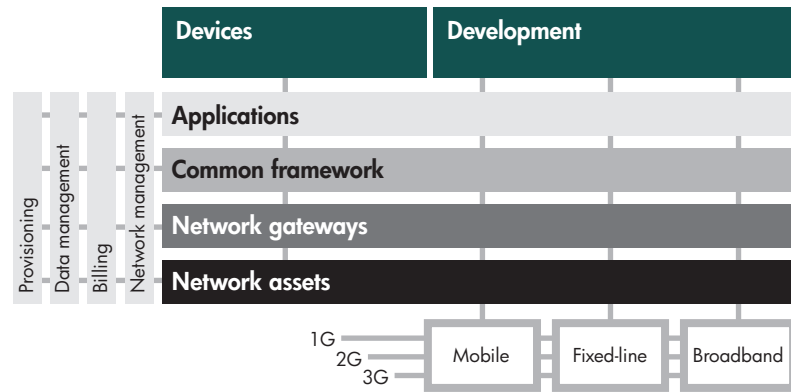
The HP SDP reduces both capital expenditures and ongoing costs. Initial service development is more cost-effective due to the common HP SDP development environment, while integration challenges are minimized because SDP maintains pre-defined links into necessary network elements. When network changes are made, the service provider simply updates the SDP, instead of separately updating all the services dependent on the network.

### • Lower risk

Development costs and risks are shared with third-party developers and content providers, an approach which also prevents single-vendor lock-in. Timeframes for deployment and integration of new services are shortened, as are the resources needed to support multiple application environments.

### • A better total customer experience (TCE)

Providing innovative, high-quality service offerings keeps consumers engaged and keeps revenue-producing volume flowing across the network. HP SDP empowers consumers with robust self-provisioning capabilities, including customer care and service management tools. Enhancing user satisfaction and loyalty is the best way to build revenue in the competitive marketplace.



## HP Service Delivery Platform framework architecture

HP SDP elements are managed by HP Integrated Service Management (HP ISM), powered by HP Advance Open Telecom Platforms, and integrated, validated and supported by HP Services and consist of the following sub-segments:

- **Applications**—addresses off-the-shelf and customizable end-user services, and defines service creation, validation, and hosting. These activities can be done using multiple Web-based service creation environments, including Microsoft® .NET Visual Studio, BEA WebLogic, and Appium GBox Parlay Developer Environment.

Pre-integrated services are also offered by third party web services partners that are registered and participating in the HP Mobile E-Services Bazaar. More than 500 partners participate in the Bazaar, which offers market-ready mobile end-user services and solutions for immediate revenue generation.

- **Common framework**—addresses security, charging, service uptime, management of partners, devices, content, and service provisioning, as well as controlling access to the service enablers and network assets layer, and interfacing to the OSS/BSS. These capabilities are achieved via HP and third-party framework, device management, content management, user interaction and presentation, and platform support solution elements.
- **Service enablers**—comprises simple network services, off-network services, and network gateways. Network and off-network services include simple services such as location, presence and availability, messaging, and media that are required to build more sophisticated end-user services. Network gateways provide hooks into lower level network assets, as well as the enabling

protocols used to communicate between network assets across the network. HP SDP Network Gateways offer open, standards-based Service Logic Execution Environments (SLEE) that enable a service to be developed once, and then re-used repeatedly, even across different network architectures. Supported APIs include Parlay, Parlay X, VXML, ccXML, SS7, SIP, SIMPLE, SMPP, MM&, MLP, LIF, and LDAP.

- **Network assets**—addresses the core elements required to develop and deploy services in the network. This area comprises service control, service interaction, service profile, and NEP and third-party assets. Service control assets provided by HP OpenCall include the Intelligent Network Server, Service Controller, Signaling Transfer Gateway, and SS7 signaling platform. Service interaction elements comprise HP OpenCall Media Platform, Converged Network Media Platform, and Media Resource Function. Service profile elements include a Home Location Register and Home Subscriber Server.

### Service interaction

HP SDP offers service interaction through an IN-centric service creation model, through the Java, BEA WebLogic, and Microsoft .NET web development frameworks, and through OSA/Parlay. Service interaction in the HP SDP is available at the Network Asset, Service Enabler and Common Framework layers.

### OSS/BSS interaction

HP SDP defines integration with HP Integrated Service Management solution, which allows service providers to cost-effectively reduce the complexity of their infrastructure and manage the various processes that are involved in the creation, delivery, assurance and usage of services. ISM offers adapters and integration to new or existing OSS environments, and utilizes HP OpenView modules to offer a flexible, integrated management toolset.

## Future evolution

The HP SDP design strategy ensures service compatibility for converging network architectures. HP SDP addresses today and tomorrow's network and service requirements, offering a natural extension path to next-generation service models from 3GPP/3GPP2, including 3G IP Multimedia System (IMS).

## Conclusions

The HP Service Delivery Platform blueprint is a network core-to-network edge solution, designed to help network operators and service providers gain the business agility to thrive in an ever more competitive marketplace. HP SDP can reduce the costs, timeframes and risks of involved with developing, deploying, delivering and managing service applications for mobile, fixed and broadband networks. Using a standards-based methodology to securely open the network, HP SDP affords developers large and small the opportunity to create new revenue-producing services, so network operators no longer exclusively bear development costs and risks.

The most important thing HP SDP really does is give consumers more high-quality service choices to fit their lifestyles. By enhancing the total customer experience, HP SDP helps operators increase consumer loyalty and maximize the potential of every revenue stream.

## The HP advantage

Communications solutions are highly complex, and service providers must deliver even more innovative services to the market while keeping customers loyal and insulated from the complexities behind the services. In order to achieve this, service providers need strategic partners who can do more. HP offers a range of targeted, seamless solutions, integrated with partners, delivered quickly and efficiently. HP systems and solutions are open and flexible, empowering customers to customize or create value-added services. Our service capabilities provide the expertise to develop, integrate, test, install and support the most complex service launches. This one-stop shopping approach lets service providers focus on their customers-not their suppliers.

HP focuses more than 25 years of expertise into a powerful integrated team, the Network Service Provider (NSP) organization, along with 500 valued solutions partners, assists the world's top 200 service and equipment providers, as well as media, entertainment and cable operators, in meeting their subscriber needs.

With solutions, technologies and services including: HP OpenCall and HP OpenView telecommunication capabilities arrayed across network infrastructure, network services, operations and business support, mobile and rich-media solutions, and end-user access, HP is a major player that is leading change in the network and service provider industry.

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