



## HP Service Delivery Platform (SDP) solution



Escalating demand for current and next-generation services presents network operators with exciting opportunities for expanded revenue streams as well as significant technical and operational challenges. While consumers embrace services that enhance the ways they live, work and play, network operators must manage ever more complex infrastructure and business environments.

Introducing profitable new services quickly and efficiently, and delivering them to subscribers across wireless, wireline and broadband connections is taxing legacy systems and forcing major redefinitions of operators' business models. Heterogeneous legacy environments typically found within communications, media and entertainment companies do more than drain human and financial resources; they hinder the vital business agility necessary to stay one step 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, converged services

- Leverage common service resources to create tailored end user services
- Keep solution validation simple and repeatable to increase efficiency and reuse
- Tap the larger development community for new services and revenue

### Communications, media and entertainment companies must deliver

Service Delivery Platform is HP's solution for developing, provisioning and deploying new end user services across multiple network types—fixed, mobile, and broadband—and generations—2G/2.5G/3G/IMS. The solution comprehensively addresses service delivery, including Web and real-time services from the core network to the edge to the end user device.

Secure, operator-defined levels of access to network elements provided by HP SDP allows operators to safely 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. The SDP solution shortens time to market with new niche services, reduces deployment risks and complexity, simplifies service interaction, and eases service management, all positively impacting revenues and reducing costs.

## Features

**Standards-based development environment**—Common service development toolsets enable developers to easily integrate telecom and IT functionality into their applications and core business processes. These toolsets include Parlay X, Parlay, Location, Presence, .NET, Java, and SIP.

**Automated partner management ecosystem**—SDP provides a scalable, automated partner management ecosystem with well-defined security and policy management mechanisms. It enables efficient management of 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**—ISVs can quickly and easily integrate with the CME company's network without compromising security, which reduces the cost of introducing services, creating loyalty among developers and widening brand appeal.

**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, how they interact, and how they tie into operations and business support systems. This reduces operational complexity and expense, while increasing operational agility.

**Supports multiple underlying network architectures**—SDP allows end user services to be developed once, and deployed over multiple underlying network architectures, such as Intelligent Network and IP Multimedia Subsystem. This reduces development costs and improves revenues through more effective service scalability.

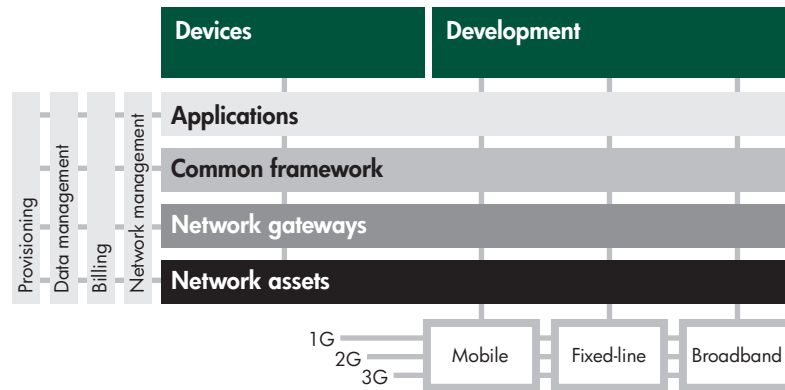
## Benefits

**Shorten time to market for faster return on investment (ROI)**—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 for optimal 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. Network changes are made by simply updating the SDP, instead of separately updating each individual network service.

**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, while reducing the resources needed to support multiple application environments.

**A better total customer experience (TCE)**—Providing innovative, high-quality service offerings keeps consumers engaged and loyal, 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.



## 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. They 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 Eclipse Workbench, Microsoft® .NET Visual Studio, BEA WebLogic or specialized service creation environments where required.

Pre-integrated services are also offered by third party Web services partners that are registered and participating in the HP Services Marketplace. More than 200 partners participate in the Services Marketplace, 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 reused repeatedly, even across different network architectures. Supported APIs include Parlay, Parlay-X, VXML, ccXML, SIP, SIMPLE, SMPP, MM7, 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 include HP OpenCall Media Platform, Converged Network Media Platform, and Media Resource Function, while 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 and Microsoft.NET web development frameworks, and through OSA/Parlay. Service interaction is available at the SDP's 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, offering a natural extension path to next-generation service models from 3GPP/3GPP2, including 3GPP IP Multimedia System (IMS).

## Conclusions

The HP Service Delivery Platform solution is a network core-to-network edge solution, designed to help communications, media and entertainment companies 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 quickly create new revenue-producing services, while sharing development costs and risks.

What 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

Increasingly complex and rapidly evolving communications solutions force service providers to deliver even more innovative services to the market while keeping customers loyal and insulated from the complexities behind the services. To achieve this, communications and media service providers need strategic partners who can do more. HP offers targeted and seamless solutions, integrated with partners and 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 allows providers to focus on customers—not suppliers.

HP focuses more than 30 years of expertise into a powerful integrated team, the Communications, Media and Entertainment (CME) organization, who along with 500 valued solutions partners, assists the world's top service and equipment providers, as well as media, entertainment and cable operators, in meeting their subscriber needs.

That experience is embodied in the HP Services group, a dedicated team of professionals on the ground in 170 countries worldwide. Building upon a foundation of people, processes and technology, HP Services can manage the complete design, delivery and deployment of critical adaptive infrastructure solutions for today's communications and media services marketplace.

HP delivers solutions, technologies, and services arrayed across network infrastructure, network services, operations and business support, mobile and rich media solutions, and end user access. These innovative capabilities, including the class-leading HP OpenCall and HP OpenView software product suites, have made HP a major player that is leading change in the communications, media and entertainment industries.

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