



## HP Service Delivery Platform/Integrated Service Management Solutions for value-added services

A solution brief from HP



### Achieve better business outcomes through value-added services

Value-added services offer communications, media and entertainment companies the means to gain significant competitive advantage in today's digital services marketplace—including faster time-to-market for innovative personalized services, lower costs and the ability to consistently deliver a more engaging user experience. Value-added services can enhance traditional services with additional functionalities, or they can be all-new services that combine core network services, new rich media, content and Web Services functionalities that give people innovative ways to work more effectively and better enjoy their lives. For communications, media and entertainment companies, value-added services can spur service adoption and increase usage, and ultimately drive more profitable revenue across the network.

New-generation Web Service-based service-oriented architecture (SOA) technology solutions, called service delivery platforms (SDP), enable value-added services to be rapidly developed and delivered. Abstraction and sharing of network resources across and between service providers and third parties enables the off-

loading of development costs and can dramatically shorten time to market for new services. Now, operators can cost-effectively offer subscribers access to a broad portfolio of exciting services, with efficient service introduction and withdrawal.

### A holistic approach to managing value-added services

Intense competition is driving operators to deploy SDP solutions to meet the demand for faster, more reliable service introduction at lower cost. However, it isn't enough to simply "plug-in" a service delivery platform to existing infrastructure. As a world leader in both SDP technology and operational support systems (OSS), HP understands the imperative to integrate the management of value-added services with OSS environments in a holistic manner. This is a critical consideration, because the service delivery platform introduces an entirely new domain into the service provider end-to-end service management environment, the Value-Added Services domain, joining the traditional Access and Core Network domains. Realizing the full value of a SDP is only made possible with the implementation of a flexible, dynamic interface between the SDP and the OSS.

## Bringing HP SDP and HP ISM solutions together

The HP Service Delivery Platform is an advanced SOA solution that decouples network resources from the service development and delivery processes, shortening the time to market for value-added services, leading to faster return on investment. Network resources are securely shared and reusable across the infrastructure and new content services can be developed without detailed knowledge of the underlying network.

HP ISM is a modular, end-to-end OSS/BSS solution encompassing hardware, software and services, which allows operators to manage and monitor the many service elements and processes involved in the creation, delivery, assurance and usage of next-generation services.

Based on the TeleManagement Forum (TMF) New Generation Operations Systems and Software (NGOSS) principles and guidelines, the HP ISM solution delivers an abstracted service management layer across the network and value-added service domains to allow an aggregated, end-to-end view of a service that allows operators to seamlessly provision and activate services, monitor end-to-end service levels and exploit service-based charging possibilities.

## Integrating HP SDP and ISM

Components within the HP SDP and ISM solutions have been designed and built to address evolving value-added services delivery and management requirements. HP draws upon a background in both information technology (IT) and telecommunications, and leverages expertise in both service delivery and service management domains to enable service providers to quickly and confidently design, develop, deploy, provision, monitor and charge for converged services. The HP SDP/ISM integration strategy enables seamless fulfillment, assurance and usage of the end-to-end service and service resources. These resources include user equipment, network elements and servers, as well as the application server and application services required to deliver value-added services to subscribers. HP SDP/ISM integration components include facilities that provide value-added services transparency from the SDP domain to the OSS domain, along with a series of OSS adapters that make it possible to manage the entire SDP hardware and software infrastructure.

## A realistic services lifecycle approach

The interface between the traditional OSS and the additional value-added service management capabilities

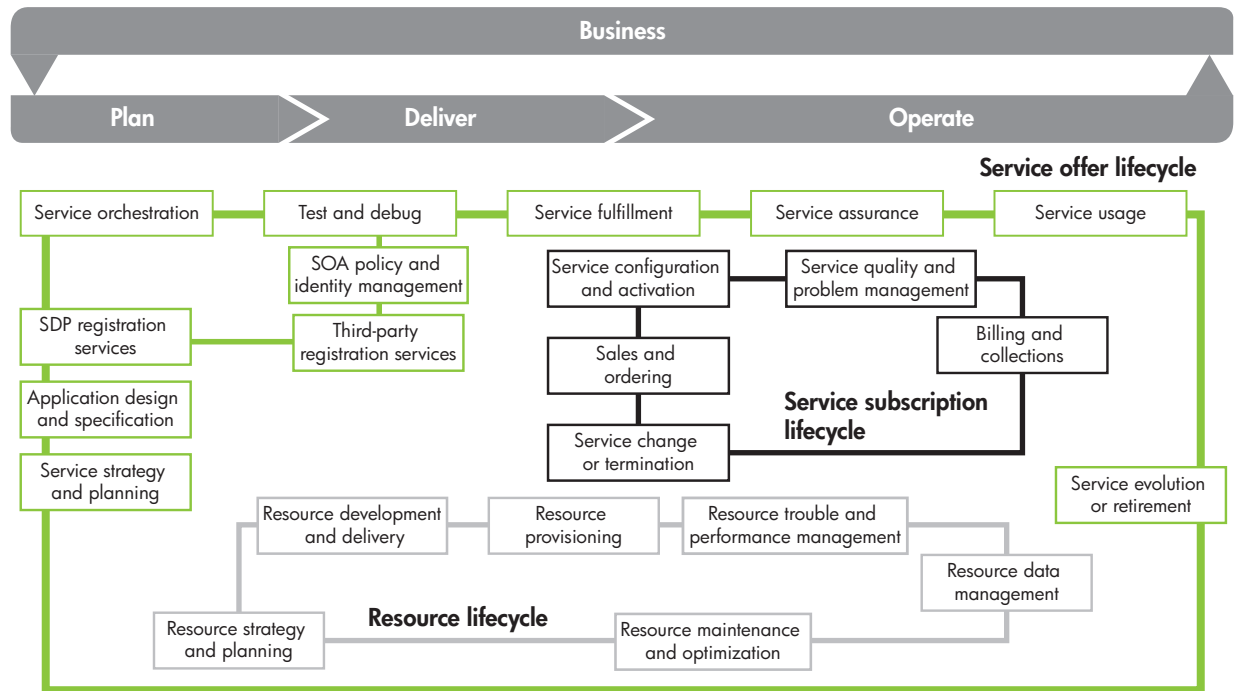
from the SDP has been achieved in a way that does not restrict the dynamics of next-generation services. Integrating value-added services running in the HP SDP environment with HP ISM management environment requires transparency into the atomic and compound services and applications in SDP; this allows the services and applications to be quickly and accurately configured, provisioned, assured and charged from initial service instantiation through service deactivation. The HP ISM approach is based on NGOSS and takes into account SOA principles of loosely coupled applications, shared information model, common communication infrastructure and standardized interfaces such as OSS through Java™ Initiative (OSS/J), which enhances operational agility and facilitates the management of value-added services in convergent telecom and IT environments.

HP SDP/ISM solution provides tighter control across three lifecycles: The Service Offer Lifecycle where value-added services are planned, designed, orchestrated, tested and deployed; the Service Subscription Lifecycle where value-added services are ordered, provisioned, activated, assured and charged; and the Resource Lifecycle where the services resources are configured and monitored for performance, quality, optimization and maintenance.

## Transparency—the key to value-added services OSS integration

Effective management of value-added services throughout their lifecycle requires that the OSS environment has a clear view into the services and applications being offered through the SDP. The HP SDP contains a Universal Description, Discovery and Integration (UDDI)-based registry as does the HP ISM solution. When deployed at an operator, the HP SDP UDDI is used to register and policy-manage network, IT and third-party services. These services are packaged, integrated and policy-managed in various ways to become value-added services. Based on individual operator requirements, services are then bundled and tailored for delivery to end users within the HP SDP environment. To enable HP ISM to seamlessly operate the value-added services delivered by the SDP, HP developed an adapter that securely exposes these value added services and bundles to the HP ISM OSS domain. The adapter is used by the OSS processes to automate the provisioning and activation of services across the telecom and value-added services domains, get visibility into the value-added services health and performance and manage end-to-end services consistently throughout the Service Subscription and Resource Lifecycles.

**Figure 1:** HP SDP and ISM; a holistic lifecycle for service delivery



## End-to-end service management

The HP ISM solution provides seamless management capabilities for complex new generation services across all service components: end user devices, core and access networks, value-added services and service delivery platforms. Built upon a flexible integration framework that increases functionality and flexibility, HP ISM is powered by the HP Software portfolio and key industry-leading independent software vendors. The solution uniquely combines state-of-the-art telecom and IT management capabilities and answers the critical challenges of:

- Improving operational efficiency, by automating and managing operational service processes throughout the network and IT systems
- Shortening time to revenue, by enabling “zero-touch” ordering to activation across the entire service delivery chain
- Improving the subscriber experience, through monitoring of service levels from end-to-end
- Enhancing revenue flow, through deployment of flexible charging for multiple service types

The new combined HP SDP/ISM capabilities enable a total approach to managing end-to-end service across the telecom domain and value-added services delivered by the SDP, including:

- Insulating end-to-end management processes from the complexities behind the value-added services
- Provisioning and activating value-added services and their associated resources
- Monitoring faults and performance of the SDP infrastructure
- Monitoring service levels for value-added services and proactively detecting issues affecting service
- Identifying the root causes of issues to enable faster service restoration
- Collecting fine-grained service usage data to allow value-based charging

## HP off-the-shelf adapters for efficient value-added services management

To help enable optimal operation from end-to-end and quicker return on investment, the HP SDP/ISM solution leverages HP IT service management capabilities and provides off-the-shelf adapters for the SDP infrastructure components and services, including:

- Hardware elements and operating systems
- Application environments such as SIP, J2EE and others
- Services, such as web conferencing and location lookup services running in J2EE or SIP application environments
- Value-added services, including those from third-parties, as listed in the HP SDP common framework UDDI registry
- OSS/J adapter to cost effectively integrate the management of value-added services into the end-to-end OSS environment.

Using the new combined SDP/ISM capabilities, service managers can easily fulfill services end-to-end, gain consolidated visibility on services health, rapidly detect and repair issues affecting subscribers and implement value-based charging models. With the management capabilities and graphical user interfaces, IT and network managers can easily manage the services delivered by the SDP as well as their associated IT assets and applications resources and easily drill down into the SDP components to rapidly isolate faults and performance issues. In addition, SDP/ISM capabilities provide operators full visibility into SDP capacity to better control the change and configuration management processes.

## The HP advantage for value-added services

For communications, media and entertainment companies, value-added services represent an outstanding source of additional revenue and can be a key to marketplace differentiation. Evolving legacy infrastructure towards the service-oriented architecture

needed to efficiently deliver and manage value-added services—and doing so cost-effectively and without impacting current operations—requires an experienced technology partner.

HP is that partner, offering deep and broad knowledge of innovative business technologies and proven expertise in successfully managing complex infrastructure launches. HP integrates HP SDP and ISM solutions to seamlessly manage end-to-end services across the Access, Core and Value-Added Services domains. Using a collaborative process and a holistic view of the complete service lifecycle, HP SDP and ISM experts will help determine which solution components and supporting HP capabilities will best address each operator's specific needs and marketplace realities. To achieve better business outcomes through value-added services, turn to HP.

## HP Services

Every HP solution leverages proven global experience that spans people, processes and technology. HP Services consultants understand the communications, media and entertainment marketplace, and can help companies get the most from their IT investments. HP Services can help in these critical areas:

- **Application modernization services**—HP offers a full range of current and future business need assessments, strategic and technological roadmaps for change, infrastructure transition services and monitoring services for the evolved application environments.
- **Mission critical support**—Onsite consulting and technical support is available at whatever level of service the organization desires, including Operational ITSM to help benchmark IT processes against others.
- **Outsourcing services**—HP offers a comprehensive portfolio of innovative and scalable sourcing options, so company personnel can focus time and resources on their core business.
- **Security services**—HP has developed a detailed methodology for secure evolution of the IT environment. Risk is lessened and both the data and the network are protected.
- **Financial services**—HP Financial Services offers a range of creative and flexible financing options that can remove the final obstacle to network evolution.

Across the globe, enterprise customers rely on HP Services to design, build, integrate and manage the IT systems that run their businesses. HP Services capabilities cover consulting and integration, outsourcing, support and education services, all delivered by more than 69,000 services professionals in 170 countries. As the marketplace continues to evolve, HP Services will be there to help communications, media and entertainment companies adapt and compete.

For more information, visit [www.hp.com/go/cme](http://www.hp.com/go/cme)

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