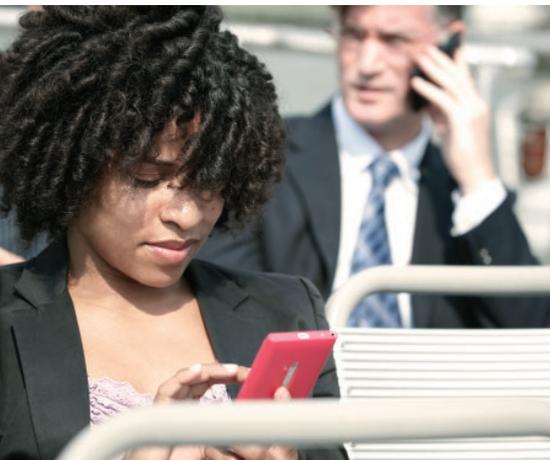**Hewlett Packard
Enterprise**

HPE API Management Service Orchestration Manager

Realize new APIs; create services quickly

Speed up new services to market
Gain a competitive advantage by quickly packaging and promoting innovative new services to open additional revenue streams, seize emerging opportunities, and serve multiple markets.

Increase revenues with contextual, composite, and innovative services
Combine Big Data with network information such as location and use an advanced business decision engine to provide real-time, in-session, contextual experiences.

Quickly create new composite APIs and mashups

In today's fast-paced digital world, communications service providers (CSPs) are seeking to generate value from their existing network, IT, cloud, machine to X (M2X), or Internet of Things (IoT)-related assets, and also create innovative offerings with real-time, contextual information.

To do this, you need to add and integrate new solutions and services to your existing environment—quickly, with minimum effort. And you must be able to create mashups from a variety of services—facilitated by application programming interfaces (APIs)—while applying business rules. These new services encompass:

• Core telecom services such as messaging, voice, video, and conferencing

• IT services such as activation, charging, and settlement

• Media services including content, advertising, and streaming

• Data services such as subscriber and device profile, identity, presence, location, and personal information manager (PIM)

Get on-premises, on-premises virtualized, or cloud deployments with HPE SOM

- **Network and IT exposure** ease operations, and leverage and monetize key assets.

- **Big Data API management** combines with smart profiles for contextual real-time, in-session information and business rules.

- **Mobile API management**—including apps enablement—leverages APIs in mobile ecosystems, enhancing users' mobile app experience and enabling smart interactions; it also lets you provide a mobile Backend-as-a-Service offering to your customers.

Review HPE Service Orchestration Manager

Get fast service creation and orchestration

Get a common framework for API creation, integration, orchestration, execution, and monitoring with HPE API Management Service Orchestration Manager (SOM). It provides rich features so you can:

- Create policies as reusable policy enforcement services once, then reuse across services

- Integrate service enablers once, then reuse across multiple services through different message transports

- Build user value-added services (VAS) once as business integration services, and leverage them over multiple network types and VAS applications

- Use standards-based components and interfaces to simplify integration and improve agility moving forward—service-oriented architecture (SOA) based

HPE SOM Connectors access the underlying network and IT platform complexity through open, simple, reusable standards-based web service capabilities and APIs. They include SMS, MMS, WAP push, location, and payment.

HPE SOM Context Enablers integrate Big Data and analytics outputs into a transactional environment. This includes a suite of APIs delivering subscriber context, based on the concept of location mashups. With Context Enablers, you can leverage customer purchase history and real-time subscriber data to better understand how to sell most effectively to customers and boost subscribers' quality of experience.

HPE Business Rules Management System ensures management, storage, creation, modification, and deployment of business rules and processes. Decisions can be made based on rules applied to data about a subscriber, situation, or context. This decision engine provides the capability to deliver in-session targeted advertising, couponing, or upselling.

Flexibly deploy HPE API Management components to provide customized solutions:

- HPE SGF—Securely expose, manage, and govern network and third-party resources access. With the optional HPE SGF Partner Relationship Management (HPE PRM), provide a partner and developer portal for easy and secured API leverage.

- HPE SOM—Orchestrate services with business rules, mash-ups creation, and a callable decision engine.

- HPE Smart Interaction Server (HPE SIS)—Enables mobile and web realtime, bidirectional, presence-based interactions for "everything."

Gain these key benefits

- **Decrease time to market and costs for releasing a new service or policy**—Use initial service development. It's more cost-effective due to a common development environment and simplified service discovery. Additionally, integration challenges are reduced because HPE SOM supports predefined integration with existing network elements. It also reduces operational expenses (OPEX) and capital expenditures (CAPEX) associated with developing, delivering, and managing a diverse variety of new, rich services through standardized service development processes, workflows, service component reuse, service validation, complexity reduction, and automated service lifecycle management.

- **Improve service adoption rates, drive network traffic and revenue generation, enhance stickiness**—Quickly innovate packaged and customized services to differentiate yourself from the competition and improve overall user experience with HPE SOM. By delivering services that can be easily tuned to be more relevant to the subscriber, you significantly improve the likelihood that these services are used, traffic and revenue is generated, and stickiness increased.

- **Increase off-the-shelf revenue, generate services by defining composite innovative services**—Create contextual services; this facilitates loyalty and differentiation in subscribers' minds, and translates to less money spent on retention and churn while customer acquisition is made easier and cheaper.

- **Expose traditional telecom assets to quickly build new services via APIs**—With HPE SOM Connectors, you can increase revenue from additional services without risking network assets and integrity.

- **Enable innovative service development using Big Data and analytics**—Unlock the potential of Big Data and analytics with HPE SOM Context Enablers. You can facilitate data monetization for new revenue models, and also leverage customer purchase history and real-time subscriber data for the next best offer or churn prediction.

- **Increase relevance—and value—with in-session business decisions**—Add value to mobile ads through increased relevance to subscribers. With HPE SOM Business Rules Management System, outcomes—such as selected, promoted ads—are based on in-session context including subscriber location, age, and gender, among others.
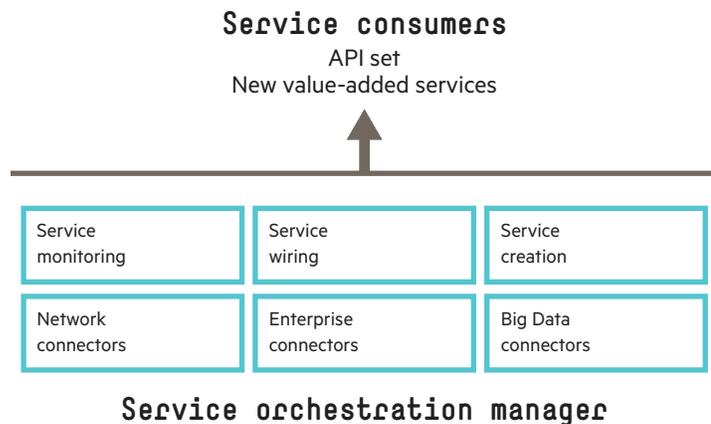
Service consumers

API set
New value-added services

Service monitoring	Service wiring	Service creation
Network connectors	Enterprise connectors	Big Data connectors

Service orchestration manager

Figure 1: HPE SOM architecture

Table 1: HPE SOM key features

ARCHITECTURE DESIGN PRINCIPLES AND DEPLOYMENT MODEL

Appliance-, gateway-, cloud-based implementation	API gateways center operational traffic management on appliances, which can come as hardware appliances or software virtual appliances, including cloud implementations.
Open and flexible architecture	Flexible architecture enables multiple services to be combined to compose new services.
High-availability architecture and scalability	Solution deployment ensures operational continuity and ability to scale based on traffic demands.

HPE SOM CONNECTORS

Service acceleration	Expose traditional telecom assets—messaging, location, and payment—to quickly build new services via APIs, leading to decreased time to market, and lowered CAPEX and OPEX.
Simple integration	Use out-of-the-box standards based on GSMA OneAPI and Parlay X for simple outbound integration through public APIs. Use extensive southbound protocol support for inbound private API integration including SMPP, MLP, MM7, PAP, and more.
Extensibility	Create new connectors for legacy backend systems or other protocols as needed.

BIG DATA API AND DECISION ENGINE

Context enabler	• Integrates Big Data and analytics outputs into a transactional environment • Enables access to information using open standards and business-specific APIs for smart contexts • Includes a suite of APIs to deliver subscriber context—notifications, preferences, audience, offers, content, measurement
Smart decisions	• Enables workflow orchestration using a Business Rules Management System • Makes decisions based on data about a subscriber, situation, or context with rules engine • Automatically detects and responds to business events • Enables marketing and IT teams to manage rules directly • Provides authoring tools, event identification, data dictionaries, I/O protocols, and workflow capabilities

SERVICE ORCHESTRATION

Mashup creation	Open, extensible service creation, blending (orchestration) of network, IT (data), Web 2.0, and Big Data capabilities
Full suite of pre-existing services	Services are bundled in HPE SOM, ready to be wired with existing or new services within the service creation environment studio to result in agile and focused services: • Policy Enforcement Services • Business Integration Services • Agile Applications
Service wiring for API mashups	• Business API from multiple internal APIs • Business API from internal and third-party APIs including OTT and social • Business API from customizing an existing API
Service creation environment	• Lightweight orchestrated enterprise service bus (ESB) business services creation • Graphical tool for authoring business services as process workflows to coordinate among people, applications, and services
API diagnostics	Enable end-to-end topology, transaction visibility, root tracing, and consumption per entity through HP Diagnostics

Get seamless deployments

HPE Solution Lifecycle Services for the communications and media industry help you realize the full value of your solutions, from planning and assessment to testing, deployment, operation, and nearly continuous improvement. Each service area leverages proven processes and best practices to balance CAPEX and OPEX, and reduce risk, while keeping your projects on time and your operations running smoothly.

HPE Solution Consulting Services help define business transformation and translate strategies into actionable solutions.

HPE Solution Implementation Services offer a low-risk project lifecycle across design, development, customization, and network and system integration.

HPE Solutions Management Services increase the operational efficiency of your existing solutions, including reactive, proactive, operational, and enhancement services.

Outsourcing options—from Hewlett Packard Enterprise (HPE)—are designed to improve business agility while reducing your OPEX; options include IT and infrastructure outsourcing, application management, and business process outsourcing.

Rely on HPE expertise

Hewlett Packard Enterprise has years of experience and success in Service Delivery Platform (SDP) and API management. In fact, we have more than 15 major wins in API management and have represented Tier 1 operators in every geography. We provide an extensive set of use cases for API Management, which were developed and delivered as a combination of product and solution offers through Big Data, network exposure, and mobile API management. With the combined value of HPE intellectual property and products, we offer an end-to-end value proposition for any challenge you might face. Through API management, we can help you realize new revenue streams, present an opportunity to establish your own OTT offers or collaborate with OTT players, and provide the tools needed to better understand your users for a vastly improved customer experience.

HPE SOM accelerates service creation and new business models enablement for service providers. With the flexibility of using lightweight and graph-based orchestration, it's possible to speed up new app delivery by 80 percent or more. It brings one of the widest choices of legacy, standard, and innovative backend connectors in the industry.

API management is at the crossing lines of IT and Telco network, making HPE the ideal worldwide partner for API solutions. Let us help you make, manage, expose, and monetize APIs in an easy, secure, and flexible way, while ensuring a low total cost of ownership. With HPE API Management Service Orchestration Manager, you can fulfill evolving user and developer needs and comply with diverse regulations and privacy protection rules, while establishing innovative business models.

Boost your business. Simplify your life. Satisfy your customers. Get HPE API Management Service Orchestration Manager.

Learn more at
hp.com/go/APIManagement

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