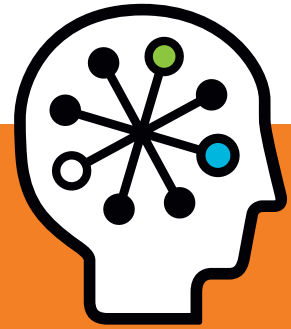




SOA management with HP Business Availability software, HP Diagnostics software and HP SOA Policy Enforcer software



SOA management is a key component of the HP business technology optimization (BTO) software portfolio and strategy. BTO enables you to make every dollar invested in IT meet business goals. This includes every resource allocated, and every application and service (both SOA and non-SOA) in development or production.

Unlike software offerings and methodologies that focus only on internal IT processes, HP BTO enables IT and business to align across business priorities with tooling and methodologies that embrace SOA and bring business priorities together with IT functions.

Seamlessly integrate SOA management

Enterprises around the world have striven to attain the promise of SOA—IT agility, IT responsiveness to business needs, faster time-to-value, better use of existing resources and lower-cost IT operations. While the underlying architectural concepts of embracing an SOA approach are now better understood, and the building of shared services has become more mature, the next set of challenges lies in scaling SOA from pilot and individual project domains into the full fabric of IT.

Organizations are struggling with the business-critical aspects of making SOA solutions work. You need to know that services will stand up to the challenges of increased, often unplanned workloads and consumption patterns. You need to know that your powerful, proven operational infrastructure and processes that keep IT working smoothly and meeting service levels will not be broken by introducing a new paradigm of service interactions, transactions and deployment models. You need SOA to become part of the operational management fabric of IT.

SOA as a first-class IT citizen

SOA is an IT evolution—enhancing the existing IT landscape. It fundamentally advances the way an IT infrastructure works, as opposed to being treated separately or in a silo. IT operations teams need to cope with the new technologies, accelerated rate of

change and emerging requirements that arise as a result of embracing an SOA environment. You must manage services across the service lifecycle, from planning to ongoing maintenance in production, while keeping rock-solid IT operations in place. Otherwise IT operations may face poor-quality services and deliver low service levels throughout the enterprise, jeopardizing crucial business outcomes and impacting the trust internal business customers have in your IT staff.

HP delivers a comprehensive SOA management offering designed to integrate SOA into the operational landscape of IT. HP Business Availability Center for SOA and HP Diagnostics for SOA help you overcome these operational challenges while accelerating the business value of your SOA investment. HP SOA Policy Enforcer enhances SOA management by providing an automated, policy-driven way to impact and control service behavior at run-time. It is designed to bridge the gap and enable collaboration among the teams responsible for defining SOA policies as part of SOA governance, and the teams responsible for ongoing SOA operations.

HP Business Availability Center for SOA, HP Diagnostics for SOA

HP Business Availability Center for SOA and HP Diagnostics for SOA meet the unique needs of SOA management while integrating SOA into the operational fabric of IT. This software offers the following key values:

- Comprehensive automated discovery capabilities across your heterogeneous IT infrastructure, with visibility into service dependencies
- Real-time visibility into SOA services and non-SOA business applications and their underlying infrastructure; the ability to apply business-driven service levels across these services, applications and infrastructure and manage the impact of service level performance
- Fast problem detection, notification and diagnosis to drill-down and resolve SOA health and performance issues before they impact customers

- Deep root-cause analysis related to SOA-based services across platform and technology tiers
- A powerful, integrated dashboard to customize and deliver SOA and IT infrastructure management information aligned to the IT user

HP SOA Policy Enforcer

HP SOA Policy Enforcer provides your service delivery and IT operations teams with a software solution to bridge the gap between operational SOA management and run-time SOA governance by configuring and enforcing run-time policies for services. It enables services to meet technical and business requirements by actively enforcing security, performance and other operational policies. HP SOA Policy Enforcer is integrated with HP SOA Systinet software for SOA governance, and HP Diagnostics for operational monitoring with policy enforcement monitoring data integrated directly into HP Diagnostics for comprehensive analysis. It offers:

- Automated policy enforcement for controlling services and their execution
- A wide array of policies, including mediation, security including authentication and authorization, and service level such as load balancing and service protection
- Identification of the relationship among services to assist with run-time governance decisions around policy enforcement
- A wide variety of payload inspection capabilities, including content- and context-based routing, business-content alerting and message transformation
- Enforcement of authentication security policies by integrating with industry-leading Lightweight Directory Access Protocol (LDAP) servers and authorization based on eXtensible Access Control Markup Language (XACML) specifications

HP SOA management core components

The HP SOA management offering provides an IT management platform comprised of multiple integrated components and an integrated real-time dashboard. Key components include:

HP End User Management software enables you to monitor applications and business services from the end-user perspective, using the following passive or active monitors:

- **HP Real User Monitor software** provides complete visibility into the experience and behavior of every user, from every location, for web applications.
- **HP Business Process Monitor software** executes synthetic transactions—from multiple locations inside or outside your firewall—to identify availability and performance issues before they impact your customers and business.

HP Service Level Management software manages service levels and provides compliance reporting for complex environments consisting of SOA and non-SOA business applications.

HP Diagnostics software enables you to monitor, trace and perform root-cause analysis of SOA-enabled services and non-SOA business applications in production before they impact end users, and correlate the information by service consumer.

HP Discovery and Dependency Mapping software creates and maintains complex relationships and views of business services, including SOA-enabled services, applications and their underlying infrastructure.

HP System Availability Management software enables you to deploy and maintain an enterprise infrastructure monitoring solution for the entire SOA and non-SOA infrastructure, providing end-to-end coverage.

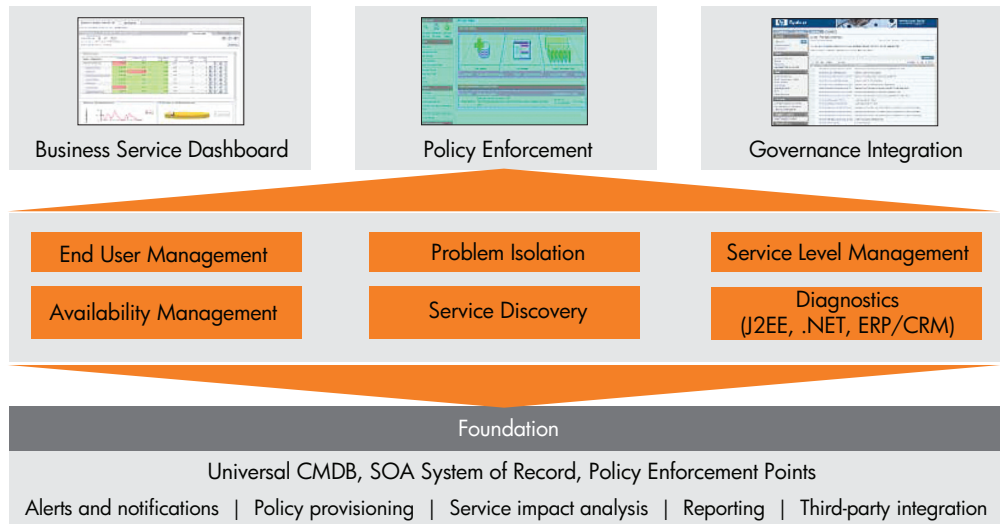
HP Universal CMDB software provides a single version of the truth to support end-to-end business availability management of SOA and non-SOA environments. It is based on three key elements: a rich data model, visualization and federation with additional data repositories. In addition, it provides impact analysis, change tracking and reporting capabilities.

HP SOA Policy Enforcer software provides run-time policy provisioning and enforcement with the following functionalities:

- **Policy provisioning** helps you associate technical policies, define routing and transformation decisions, deploy them on HP SOA Policy Enforcer's high-performance Policy Enforcement Point (PEP), and update a Universal Description Discovery and Integration (UDDI) registry, such as HP SOA Registry Foundation. This helps you discover services and associated policy metadata and determine whether the service can meet composite application objectives from a run-time perspective.
- **Runtime policy enforcement** delivers a core set of policies across a wide range of capabilities, including security, service availability, routing and transformations, payload inspection and validation, service protection and protocol mediation. It also provides custom policy extensions for any policies not available out-of-the-box.

HP Business Availability Center for SOA real-time dashboard enables you to measure and manage critical business processes to deliver intended outcomes to customers and the business. Part of HP Business Availability Center, the dashboard delivers up-to-date business service configuration views and active drill-down to business service components, with simple and fast access to SOA-related data and reports.

Figure 1. HP SOA management offering



Monitor what matters

HP Business Availability Center for SOA and HP Diagnostics for SOA enable you to zero in on critical data to ensure optimal business outcomes. They offer:

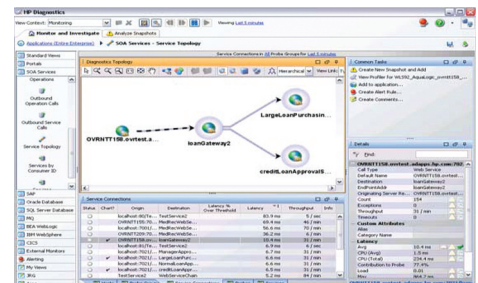
- Comprehensive, built-in automated discovery and dependency mapping capabilities, powered by HP Universal CMDB for services, applications, infrastructure and visibility into service dependencies, since you can't manage what you don't see
- Real-time visibility into SOA-enabled services and non-SOA business applications and underlying IT infrastructure, so you can immediately see the impact of problems from an end-user's perspective
- Monitoring of composite services and their underlying infrastructure with automated correlation from an end-user's experience using both synthetic and real-user monitoring. Ability to emulate end-user or consumer business processes against business services with support for more than 60 protocols for web, web services and non-web environments
- Detection of changes in the SOA environment and the ability to assess the impact of service changes based on the end-users' experience
- Fast problem detection and notification to rapidly identify and diagnose SOA availability and performance issues. Ability to map issues and impact not only to their underlying infrastructure, but also to consuming applications. Enables 24x7 application and service availability by proactively detecting problems before they affect business experience, by rapidly identifying problems at the correct tier and pinpointing root causes

Deliver measurable service levels across the full IT landscape

HP Business Availability Center for SOA and HP Diagnostics for SOA enable you to define service level agreements that drive optimal business results across SOA and non-SOA solutions, by offering the following:

- Proactive management of service levels from the business perspective, so IT and business can align on operational goals and you can immediately manage and assess business impact
- Reporting for compliance with service level agreements for complex business applications, including SOA-enabled business services deployed in distributed environments
- Real-time visibility into SOA services and non-SOA business applications, mapped to service levels
- Non-programmatic wizards for easy, guided definition of realistic, quantifiable availability and performance objectives that reflect business goals and measure performance and availability as experienced by end users

Figure 2. Analyze SOA application problems and reduce mean time to resolution.



Integrate across SOA lifecycle

HP SOA management offerings, including HP Business Availability Center for SOA, HP Diagnostics for SOA and HP SOA Policy Enforcer, are integrated with HP SOA governance and SOA quality solutions to effectively manage the service lifecycle.

HP Business Availability Center for SOA delivers out-of-the-box integration with the industry-leading SOA governance platform, HP SOA Systinet, with the following key features:

- Enables HP SOA Systinet to on-board new and rogue services from HP Universal CMDB to increase the number of services under governance
- Establishes accurate service levels in production, by viewing them in HP SOA Systinet, that have been specified by service providers upfront in the planning and development process
- Drives the effective re-use of services through production metadata integrated into HP Systinet from HP Business Availability Center for SOA

HP delivers integrated design-time and run-time governance through an intelligent integration between HP SOA Systinet and HP SOA Policy Enforcer. This includes auto discovery of new services and policies for provisioning, and auto notification of policy configuration tasks. This integrated solution automates the complete SOA lifecycle from a governance perspective.

In addition, HP Business Availability Center for SOA helps you build efficiencies into your testing organization and process by leveraging test scenarios, based on production use of the services, and by helping create scripts and test scenarios for HP Service Test software.

A complete solution

Comprehensive training

HP provides a comprehensive curriculum of HP Software and IT Service Management courses. These courses provide the training you need to realize the full potential of your HP software.

With more than 30 years of experience meeting complex education challenges worldwide, HP knows training. This experience, coupled with unique insights into HP Software products, positions HP to deliver outstanding training experience. For more information, visit: www.hp.com/learn

HP Services

Get the most from your software investment.

To extend the value of HP software for SOA, HP offers complementary SOA services to help you design, build, integrate, manage and evolve an SOA environment. As a result, you can improve your business performance with the flexibility and discipline to change and grow.

- **HP SOA Envisioning** helps large enterprises develop an understanding of SOA concepts and identify the benefits and potential effects of SOA on their enterprise.
- **HP SOA Assessment** uses the HP SOA Agility Assessment to help you develop a comprehensive roadmap to guide the adoption of SOA across your enterprise.
- **HP SOA Governance and Architecture** helps verify that you have the right enterprise architecture, architecture program office and governance model to support an SOA across your enterprise.
- **HP SOA Enablement** leverages the results of the Governance and Architecture service to prepare your infrastructure for SOA implementation.
- **HP SOA Service Development** helps you define, develop and deploy an SOA-based business and IT services across your enterprise, line-of-business, department and project.
- **HP SOA Software Development** provides volume and scale in the development and delivery of business and IT services to help you improve productivity from your deployment teams through the use of our global software development capability.
- **HP SOA Management** helps you gain control of SOA adoption with management support that includes lifecycle management, services management, monitoring, auditing, analysis, service level agreements and policies.

With the increased agility that SOA provides, you can more easily and cost effectively align your IT resources for more flexible systems and applications and to help achieve your goals. For an overview of HP software services for SOA, visit: www.hp.com/services/SOA

To access technical interactive support, visit Software Support Online at: www.hp.com/managementsoftware/services

To learn more about HP Software Customer Connection, a one-stop information and learning portal for software products and services, visit: www.hp.com/go/swcustomerconnection

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Technology for better business outcomes

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