HP Operations Orchestration software

Data sheet

HP Operations Orchestration helps reduce operational costs and improve service quality by automating routine IT tasks, such as repetitive maintenance, change provisioning, and incident resolution.

Slashing operational costs with IT Process Automation

With the increasing scale and complexity of data centers—including applications, virtual and physical servers, networking devices, desktops, and storage infrastructure—many IT organizations have implemented critical IT management systems. These systems include data center automation tools, service desk tools, ticketing systems, and monitoring tools to manage the growing complexity of the data center. However, implementing and managing these disparate systems in support of IT management processes—such as event and incident management, change management, virtualization, and disaster recovery tasks—result in manually coordinated hand-offs, which increase operational cost, time-to-market, and risks to service availability.

HP Operations Orchestration (HP OO) helps reduce operational costs and improve service quality by automating routine IT tasks, such as repetitive maintenance, change provisioning, and incident resolution. HP OO integrates with your IT environment to ensure minimal impact on current procedures and tools while fully utilizing your existing IT investments.

For example, an HP OO customer (NSRI) saved over $5 million annually by reducing the mean time to resolution from two-three hours to seconds by using HP OO for incident/problem management. NSRI was also able to handle the expansion of infrastructure without adding to their support staff.

Common usage scenarios currently being implemented by customers using HP OO can be found in Table 1.

Create, document, and enforce standard ITIL-based processes

Author

HP OO Studio is the flow authoring and deployment tool in HP OO. Intuitive drag-and-wire capabilities in Studio allow users to design, create, share, and customize flows with little or no programming skills. Studio supports collaboration between multiple authors through version control capabilities. The powerful built-in debugger that allows testing of flows on multiple environments accelerates content development and enables validation of flows for reliable execution.

Many IT organizations create scripts to perform standard tasks. However, they use largely manual processes for task execution, and there are limits to this approach.

Scripts for complex processes that touch multiple systems and applications are difficult to create. Scripts are also hard to maintain, hard to share and re-use, cannot be validated for reliability prior to execution, and are not auditable. HP OO addresses the limitations of scripting by reducing the administrative complexity of flow creation and authoring through an easy-to-use drag-and-wire Studio.

Deploy

Studio also allows users to easily deploy flows. Studio allows users to compare and promote flows across multiple environments (development, test, staging, and production). Standard processes can be documented and structured documentation can be generated to support compliance requirements using Studio.

Run

HP OO offers flexibility in flow execution to reduce administrative time and increase agility. Flows may also be executed sequentially or in parallel, which reduces the time to deploy a single change to a large group of devices or to coordinate related changes to different device types (for example, server and storage devices). HP OO provides the ability for real-time inspection of step-by-step results and outcomes of flows. Flows can be executed in three different modes depending upon preference, including:

- **Frontline operator:** This is initiated in a guided mode
- **Automatically triggered in a self-healing or automatic mode:** These may be initiated from HP and third-party systems or applications
- **Pre-scheduled mode:** This mode utilizes OO's built-in scheduling feature or allows use of a third-party scheduling tool to run flows at specific frequency and time

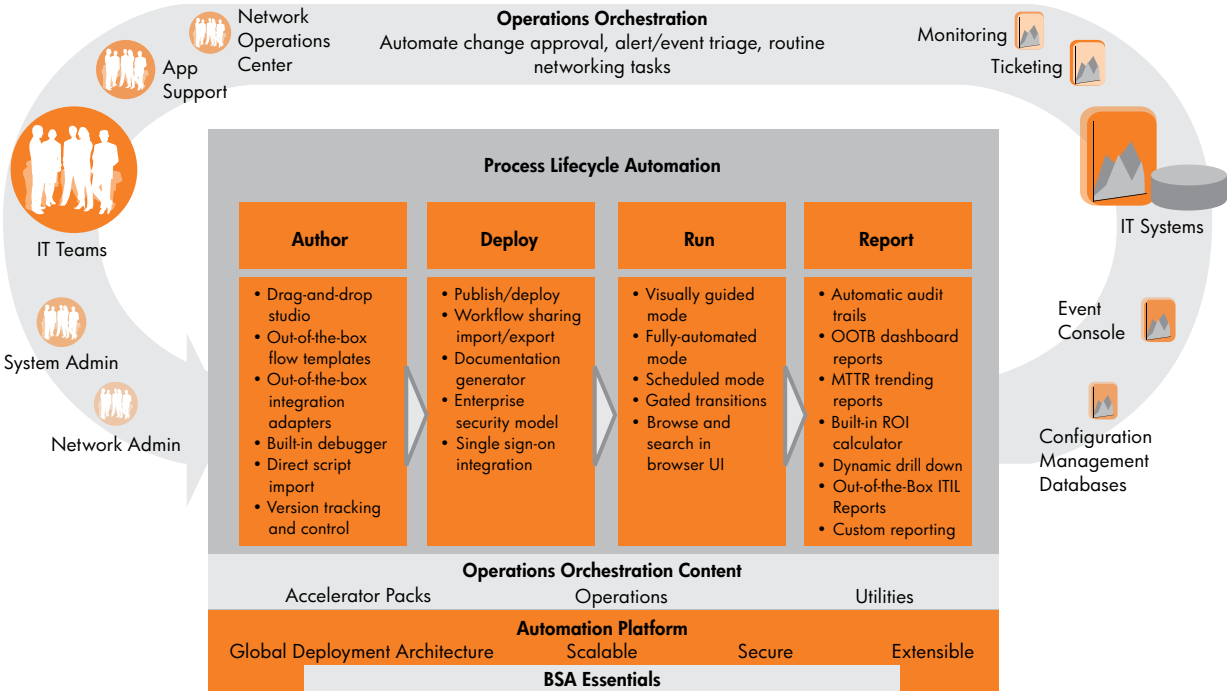
Table 2 provides a list of the typical tasks performed using HP OO and the features that support these tasks.

Table 1: Common HP Operations Orchestration usage scenarios

Incident management	Change management	Virtualization	Disaster recovery
• Service down detected in HP Operations Manager (OM) • Alert launches OO flow • OO flow takes ownership of OM alert • OO opens incident ticket in HP Service Manager (SM) • OO workflow performs diagnostics and repair procedure to fix service, such as restarting the service • OO flow updates SM ticket with full audit trail • OO flow acknowledges the OM alert event • OO closes SM ticket	• Requestor creates SM ticket to provision a server • Change Advisory Board reviews and approves ticket • Ticket approval launches OO flow • OO flow executes change operations using HP Server Automation (SA) • OO flow updates and closes SM ticket • OO flow updates HP Universal CMDB with accurate data center state • OO flow notifies Change Control Board	• User requests additional server capacity through self-service portal • Request launches OO flow that prompts user for parameters • OO opens SM change ticket to provision a new VM • OO checks hypervisor capacity and provisions additional storage through HP Storage Essentials, if necessary • OO triggers SA to provision the new VM and configure the software • OO performs checks to confirm successful completion • OO closes SM ticket	• OO validates approval status on SM change ticket for failing over from primary system to destination system • OO validates health and configuration of destination system • OO disables monitoring and clustering on primary system • OO performs failover tasks, validates success, and updates SM ticket • OO re-enables monitoring and clustering for destination systems • OO notifies stakeholders that DR event complete • OO acknowledges alert and closes SM ticket

These are only some examples of how HP Operations Orchestration can seamlessly direct complex IT workflows and coordinate information sharing across disparate systems and teams.

Table 2: Process Lifecycle Automation using HP Operations Orchestration



Out-of-the-box content for immediate value
HP Operations Orchestration includes over 3800 out-of-box operations, flows, and integration adapters. The included operations and flows offer tremendous flexibility in terms of supporting many different platforms and products. The comprehensive coverage of integration adapters for systems management products offers the freedom to use existing products without major tweaks or reprogramming.

Table 3 provides a list of the important Accelerator Packs in HP OO. Table 4 includes the list of Integrations with Systems Management tools.

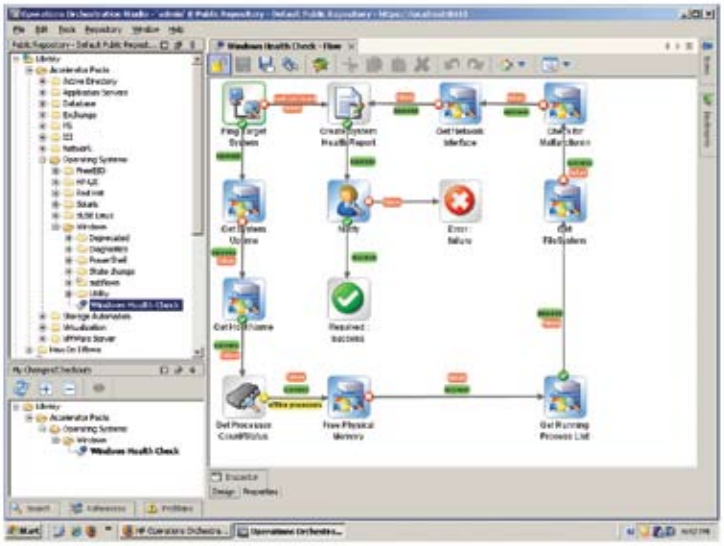
Reporting and dashboard
HP OO provides a built-in ROI (return on investment) calculator to define, compute, and report the benefits of executing flows. HP OO Studio allows users to specify the ROI for each flow; the dashboard in HP OO Central reports the cumulative ROI from executing the workflow in the production environment. This enables IT managers to demonstrate the value of HP OO without having to use external tools, scripts, or spreadsheets. The right panel in Figure 2 shows flows executed in the last seven days with associated ROI values.

HP OO's reporting feature allows you to create custom reports for executed flows. For example, a user could run a report to list all flows that ran in a specific week and failed. Coupled with HP OO's ability to generate HTML documentation automatically based on the flows and operations, the reporting feature provides unprecedented flexibility to handle internal as well as external audits.

Key benefits of HP Operations Orchestration

- **Reduced operational cost:** Automates manual, repetitive, and error-prone tasks so IT staff can refocus on strategic initiatives
- **Improved service quality:** Reduces escalations and mean time to repair (MTTR) by automating event and incident triage, diagnosis, and resolution
- **Coordinated change and tasks across siloed systems and teams:** Reduces inefficiency, complexity, and risk associated with manual hand-offs

Figure 1: IT process automation workflow
Orchestrate complex IT workflows seamlessly across your enterprise data center.



- **Increased business agility:** Reacts more quickly to changing business needs by reducing the time to deploy new infrastructure and provision end-to-end business services
- **New auditable process:** Documents and enforces ITIL-compliant, standardized processes
- **Increased time-to-value:** Leverages out-of-the-box content based upon best practices and integrations to HP and third-party system management tools
- **Ease of workflow creation:** Reduces administrative complexity by decreasing the need for dedicated development resources to author flows

An integral component of achieving Business Service Automation

Business Service Automation is achieved by automating all of the devices that comprise the business service—across client, server, network, and storage. Business Service Automation is an integrated process that orchestrates changes, from simple tasks to end-to-end business service provisioning, across each IT domain's tools and teams. HP OO—through its tight integration to HP and third-party systems management, automation, ticketing, and CMDB solutions—automates end-to-end IT management processes by unifying the underlying technologies and teams in support of the business service.

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Figure 2: HP OO Central showing flow dashboard

Table 3: Accelerator Packs (Flow Templates)

Category	Supported platforms	Out-of-the-box content examples
Operating systems	Microsoft Windows, Red Hat/SUSE Linux, Solaris, FreeBSD	File system/memory diagnostics, service status, service restart, start/kill process, server reboot, clean logs, delete files, health check
App servers	BEA Weblogic, Citrix Presentation Server, JBOSS, Tomcat, IBM Websphere	Check application list, get application state, query server configuration, start/stop server, deploy/start/stop application, add/remove user, run garbage Collection)
Networking	Cisco, Network Diagnostics, Web operations	Enable/disable CDP, enable/disable routing, remove/modify VLANs, add/delete users to routers, change interface IP, set banner for routers, connectivity diagnostics, website health check, find Web pages with dead links
Databases	Oracle, MS SQL Server, Sybase	List databases, number of active connections/processes, integrity check for database/table, database server/tablespace diagnostic, PLSQL search, Top SQL stats
Virtualization	VMware Server, VMware Virtual Infrastructure, Microsoft Hyper-V, Citrix XenServer, Citrix Presentation Server	Create/start/stop VMs, migrate (hot/cold) VMs, snapshot VMs, get VM info, reboot/shutdown guest, virtual network operations

Table 4: Integrations with Systems Management Tools

Category	Supported systems management tools	Out-of-the-box content examples
Service desk	HP Service Desk, HP Service Manager, BMC Remedy, HP Peregrine Service Center, CA Service Desk	Open incident/change ticket; Update incident/change ticket; Close incident/change ticket
Monitoring	HP Openview Operations, HP Operations Manager, HP Network Node Manager, BMC Patrol, IBM Netcool, CA Network and Systems Management, IBM Tivoli, MOM, SCOM 2007	Own alert, acknowledge alert, close alert, create alert, update priority, enumerate alerts
Configure and change	HP Server Automation, HP Network Automation, HP Client Automation, HP Storage Essentials, Microsoft SMS, Symantec Altiris	Provision server, remediate server, attach server to policy, add patch to policy, approve blocked job/task, start VM create, provision storage to host
CMDB	HP uCMDB, BMC Atrium	Add/delete object, add/delete relationship, get topology map, get/list class, get/list job runs

Table 5: Glossary of HP Operations Orchestration terms

Term	Description
HP OO Studio	HP OO's flow authoring and deployment tool. Studio provides an easy to use interface to create and customize new flows, debug flows, generate documents, and deploy flows across environments with single sign-on integration
HP OO Central	Includes the flow engine that executes the flows and also provides an administrative interface to manage users and flows. In addition, OO Central also provides dashboard and reporting capabilities for ROI and execution metrics for flows
Operation	An action and, optionally, subsequent manipulation of the data that the action produces. For example, an operation may perform the "dir" command to obtain the list of files in a Windows directory
Flow (sometimes referred to as an OpsFlow)	A logically linked sequence of steps; each step represents an operation. A flow can perform any task that you can program, on any computer anywhere on an intranet, extranet, or the Internet. For example, a flow may check to see whether a service is running, and if not, restart it
Integrations	Operations that provide the ability for HP OO to work with common systems management tools such as ticketing, monitoring and event consoles, virtualization, CMDB, and data center automation. HP OO provides integration with both HP and third-party management tools
Accelerator packs	Combinations of flows, typically grouped by platform, that provide the ability to manage different software platforms and tools such as operation systems, Web/app servers, databases, networking, and others
Content	A generic term that refers collectively to both Integrations and Accelerator Packs in HP OO
Process	A non-OO-specific term. May be defined as "a series of actions or steps towards achieving a particular end." Processes are modeled in HP OO to create a flow

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