



**Hewlett Packard
Enterprise**

Brochure

Control change

The benefits of change management
with Data Center Automation





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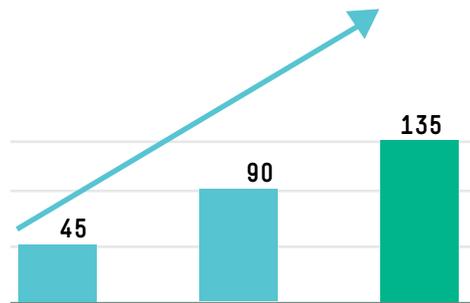
Why read this?

If you're tasked with the care and feeding of a server environment, you live in a dynamic world. From server provisioning and server patching to system updates and upgrades, change is the only constant in today's data centers.

And change brings challenges. If you rely on manual processes, the steady stream of change requests can drain the productivity of your staff and trigger IT incidents caused by human errors.

All of this is an argument for the use of IT process automation and orchestration tools that help you take control of change. That's the idea behind process-powered change management for servers.

Change is the **ONLY constant** in today's data centers.



45 changes per day¹



8 out of 10 IT organizations have an unacceptable rate of incidents caused by changes²



Zero maintenance windows in many cases

In a dynamic data center, the only constant is change

To understand the need for process-powered change management, it helps to begin with the big picture—the large numbers of changes that take place in a dynamic data center.

The typical data center grapples with more than 1,300 requests for changes per month, or about 45 per day¹ This constant stream of changes leads to many unintended consequences that manifest themselves in IT incidents.

A Forrester study found that just 23 percent of IT organizations have an acceptable change-related incident rate.² That means 77 percent of IT organizations are struggling with unacceptable numbers of incidents caused by changes. As the Forrester study notes, “A high rate of change-related incidents indicates poor change management.”

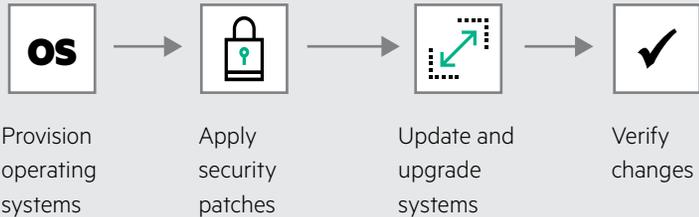
Want to make things even harder? Large numbers of change-related incidents put added burdens on IT operations teams that are already struggling to make changes during ever-smaller server maintenance windows. In some cases, those maintenance windows are now all but nonexistent, thanks to the rise of global operations and always-on businesses.

So how can you take control of change management in your server environment? The answer lies in **IT data center automation** and **process-powered change management**.

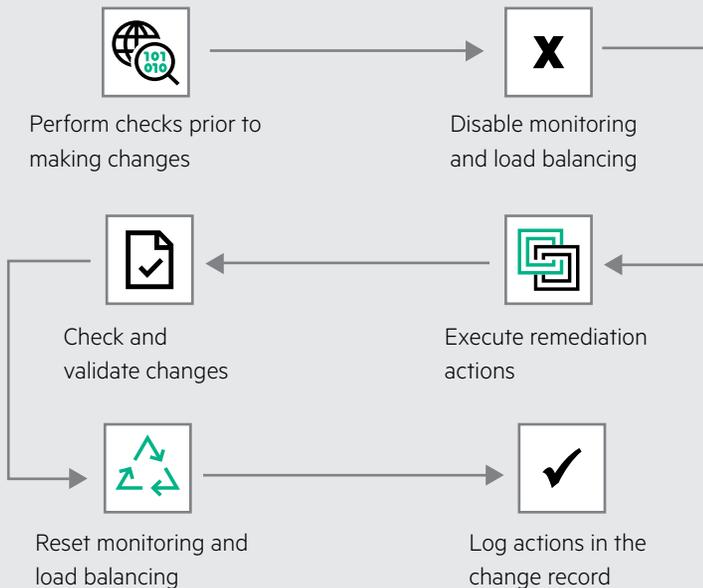
¹ Pink Elephant, Incident, Problem, & Change Management Metrics Benchmarks Update: A Report From The Pink Elephant IT.

² Forrester, “Ten Essential Change Management Actions,” by Glenn O’Donnell, May 31, 2013.

1. Automate change-related tasks.



2. Orchestrate change processes.



Gain control

Process-powered change management for servers leverages the paradigm of IT process automation and orchestration to give your IT administrators greater control over change. This progressive approach to change management helps you move beyond error-prone manual processes into a world of task automation, where many routine IT tasks are handled automatically.

Process-powered change management draws on server automation software and IT orchestration software to automate the execution of key tasks associated with server changes and to orchestrate the change process across diverse teams, tools, and environments. These capabilities help you improve the accuracy of changes and avoid change-related IT incidents. They also help you accelerate the execution of changes.

“Automation enables more accuracy and far higher speed in process execution.”

– Forrester

A day in the life of server administrators with manual processes

To illustrate the advantages of process-powered change management, let's look at a day in the life of server administrators in two very different data centers—one that relies heavily on manual processes and one that is highly automated. We will start with the admins who work in the data center dominated by manual processes.

As the company moves toward 24x7 operations, windows are shrinking. To avoid disruption of business services, maintenance tasks are often scheduled between midnight and 5 a.m., which means server admins often have no choice but to work in the middle of the night.

And as for the work, it's all labor-intensive. Prior to making changes, admins must manually perform checks of the systems in question and then disable

monitoring and load-balancing tools. They then manually execute, check, and validate the changes. After that they manually reset the monitoring and load balancing tools—assuming that everything went well. And if things didn't go well, they have to back out all of the changes and restart the entire process.

To complicate matters, different tools are used for different tasks. This means server admins have to log into and out of multiple systems to carry out changes.

One of those systems holds change records. To create a record of the change, server admins must log into the change-record system and then fill out electronic versions of paperwork. These extra steps take a fair amount of time, so oftentimes changes don't get logged. As a result, the IT organization has an incomplete record of server upgrades, patches, and compliance.

And then there's the issue of the fallout from error-prone manual processes. Just about any change can bring unintended consequences. These change-related incidents often trigger a series of wake-up phone calls to IT engineers and operations for assistance with troubleshooting.

A day in the life of server administrators with orchestrated processes

Now let's consider the case of server administrators who work in an orchestrated data center. In this environment, the admins rely on sophisticated data center automation software tools to automate the execution of the various tasks that go into the changes.

Changes are scheduled to run automatically at certain times of the day or night. At the scheduled time, the orchestration software initiates the scheduled workflow and the server automation software carries out the assigned tasks.

The IT process-automation software performs the necessary server checks prior to making changes and then disables monitoring and removes the server from the load balancer. It then executes the remediation actions, checks and validates the changes, and then resets the monitoring and load balancing.

Along the way, the software logs all actions in the change record. This gives IT managers an accurate and auditable view of the changes that have been made in the server environment and the status of server compliance with established policies.

Compared to the manual processes used in the past, data center automation has helped the IT organization reduce the number of change-related incidents, and accelerate the execution of tasks. Better still, server administrators can now focus on higher-value activities, rather than spending their time carrying out repetitive tasks.

“HPE OO has provided the means to initiate server deployment in a timely consistent manner. It has ensured all new server builds have met the appropriate approvals and are configured according to company standards.”

– IT architect, medium enterprise computer services company

Essential tools for managing server changes

How can you put process-powered change management to work? Look to the HPE Data Center Automation and HPE Cloud Orchestration software solutions. It provides all the data center automation tools you need to standardize, automate, and orchestrate server tasks. These tools include HPE Operations Orchestration software and HPE Server Automation software.

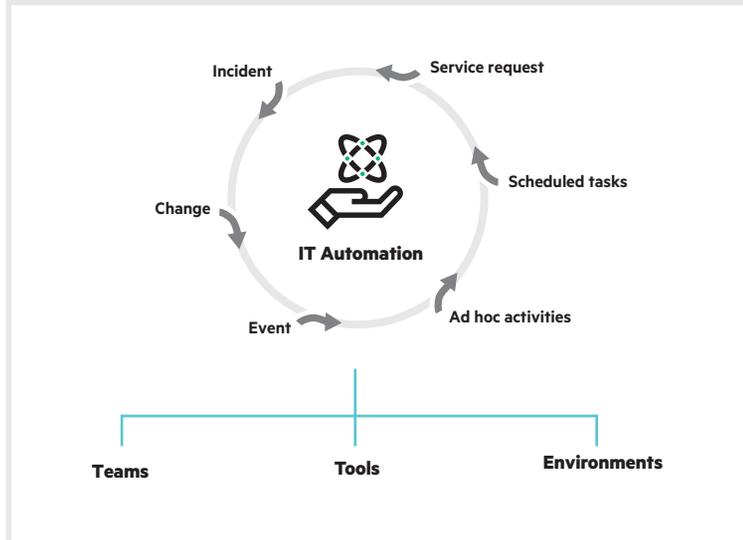
In process-powered server change management, HPE Operations Orchestration software orchestrates the changes and HPE Server Automation software carries out the required tasks. The result is a closed-loop change management process.



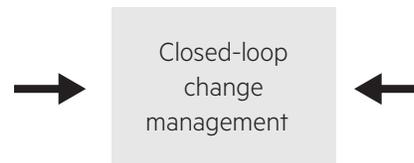
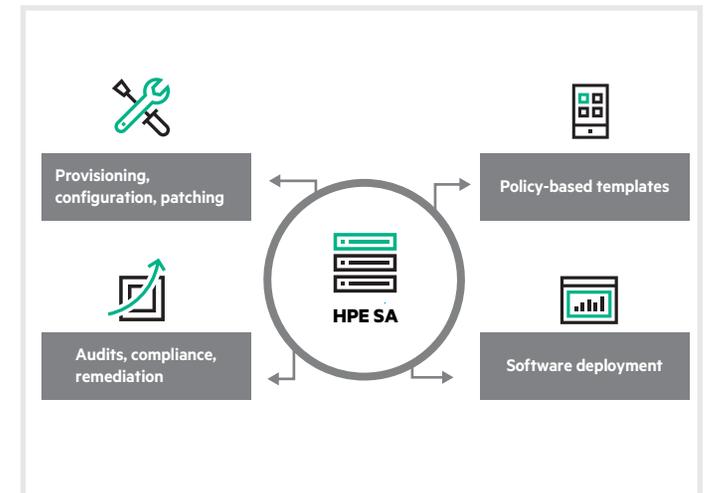
Take a closer look at the capabilities of HPE Operations Orchestration software.

Watch the video.

HPE Operations Orchestration software orchestrates the changes



HPE Server Automation software makes the changes





Deliver change with greater accuracy and higher speed

The HPE solution for process-powered change management helps your organization transform key aspects of your IT operations.

Consider these results from a third-party survey of organizations using HPE Operations Orchestration software:

Top improvements with HPE Operations Orchestration

1. Faster execution of tasks and processes
2. Improved efficiency and productivity, and faster responses to requests
3. Improved process quality and reduced number of errors

Process-powered change management helps you achieve

50%

Improvement in the accuracy of changes³

50%

Acceleration in the execution of changes³

³ TechValidate. Survey of users of HPE Cloud and Automation Solutions.

Get the HPE Operations Orchestration edge

With its prebuilt IT process-automation libraries and out-of-the-box integrations, HPE Operations Orchestration fits easily into your server environment. You can become productive quickly with more than 5,000 prebuilt operations and flows and over 80 integrations.

In addition, HPE Operations Orchestration helps you eliminate point-to-point integration with change management tools, where each IT product takes its own approach to integration. This adds to the complexity, cost, and risk of error. With HPE Operation Orchestration, you need to integrate ONLY ONCE, and any product can subsequently reuse the integration without recreating the proverbial wheel.

5 key differentiators for HPE Operations Orchestration

- Open API—integrate with anything, invoke from anywhere
- Integration wizards without needing to code
- Heterogeneous support for:
 - Infrastructure
 - Operating systems

- Hypervisors
- Applications
- HPE and third-party tools
- Private and public cloud
- Authoring and de-bugging
- IT process-automation libraries

“HPE OO’s flexibility, intuitive design environment, rapid setup, and integrated flow run/debug systems allow me to integrate customer environments and automate customer tasks quickly, efficiently, and reliably.”

– IT architect, large enterprise computer services company

Here's the bottom line: You can't stop change, but you can manage it

Take control with HPE Operations Orchestration Community Edition (OO-CE).

HPE OO-CE

in 3 easy steps:

1. Download the **free** software.



2. Setup the software in **2 hours**.



3. See benefits in **< 30 days**.

Learn more at
[**hpe.com/software/oo**](http://hpe.com/software/oo)



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