HPE Data Center Automation solution

Cut the cost and complexity of delivering high-quality IT services.

At a glance

Data Center Automation is a unified, virtual appliance based solution that automates tasks and orchestrates processes for provisioning, patching, and compliance across servers, networks, databases and middleware in a heterogeneous environments. Data Center Automation Software reduces cost, increases speed of service, and scales to meet your needs.
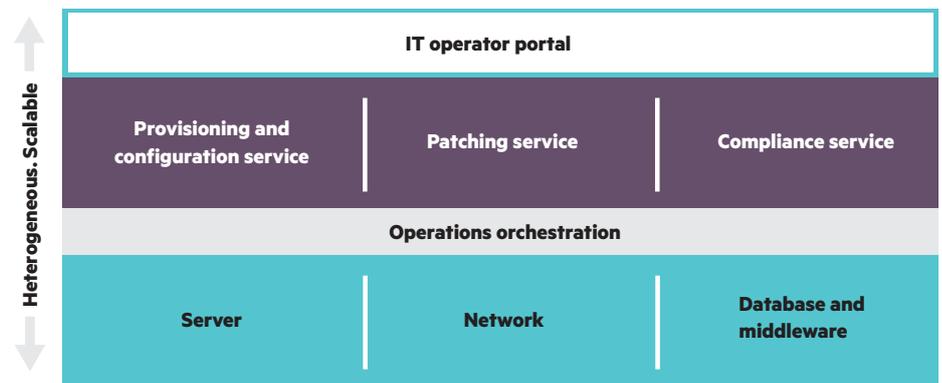

Figure 1: HPE Data Center Automation software solution delivers scalable IT services across the full stack in a heterogeneous environment through a single IT operations portal

Three editions for flexibility

- **Express Edition**
  Provides automated provisioning, patching, and IT process automation for server operations. Express is for small to midsize data centers and supports the entire IT environment including physical, virtual, and cloud-based servers.

- **Premium Edition**
  Adds network, database and middleware automation. Delivers compliance services across the full stack: infrastructure, platform, and network.

- **Ultimate Edition**
  Provide world-class automation functionality for an enterprise-wide rollout.

HPE's innovative approach: unified automation

As a core element of an integrated portfolio of solutions, the **HPE Data Center Automation solution** helps customers automate, orchestrate, and transform IT service delivery. It combines the capabilities of multiple value-rich data center solutions to provide a unified automation platform that is accessible through a single, intuitive IT operations portal.

Key features

Provisioning and configuration

Customers can orchestrate provisioning and configuration across the full stack—from physical and virtual servers to networks, databases, and middleware—so IT can quickly deliver resources tailored to business needs, even in multi-vendor, multi-platform environments.

The HPE Data Center Automation software solution allows administrators to:

- Use pre-defined policies to install new operating systems, applications, and new infrastructure configurations.

- Provision both physical and virtual servers with ease. For example, you can deliver the OS layer to a virtual machine.

- Perform bare-metal OS provisioning, leveraging out-of-the-box content such as OS build plans, and configure server platforms such as BIOS and RAID.

- Repurpose servers quickly and painlessly.

- Deploy utilities and platform software and sequence multiple object types, including packages, scripts, zipfiles, and OS objects (registry, users/groups).

- Configure and personalize using template-based configuration and inheriting customer and facility defaults.

Patching

The HPE Data Center Automation software solution simplifies the management of software installation, updates, patching, removal, and reporting. Data center solutions also provides a frontline server defense capability that protects applications, data, and servers against security exploits and vulnerabilities. Key features and capabilities of DCA solutions include:

• **OS patching:** Administrators can update components across the enterprise, secure the OS and applications across heterogeneous servers, and migrate data and remediate to the new OS.

• **Batch configuration:** Administrators can track, validate, and update the configuration state efficiently.

• **Software update:** Simplified patching facilitates standardization efforts and supports technology refresh and migration initiatives, keeping data center resources optimized for the highest priority workloads.

• **Batch execution:** The solution collects information and makes it possible to invoke scripted actions securely, reliably, and repeatedly.

All of these capabilities are delivered through a single, intuitive interface for patching a diverse set of servers from multiple vendors, removing the need to purchase, learn, and maintain multiple tools. The HPE Data Center Automation solution also provides:

• **Extensibility:** The patching service can integrate with scanning and patch metadata from multiple trusted sources.

• **Enhanced network utilization:** Only the patches that are actually needed are delivered to the managed servers.

• **Increased flexibility:** Customizations and ordering of patches are based on different types such as service packs and update rollups.

Software management

The HPE Data Center Automation software solution also makes it easy to keep your software up to date using pre-defined policies. It offers:

• **Full-featured policy definition:**

  – Control the sequence of install or uninstall of all object types.

  – Leverage attributes for region- or application-specific tailoring.

• **Incremental deployment, removal and replacement:**

  – Add software components to devices or groups (or update other policies).

  – Detach policies to remove software in a controlled manner (via uninstall option).

• **Usage tracking:**

  – Know where software is deployed correctly.

  – Reuse policies for deployment, update, and compliance.

Compliance

The HPE Data Center Automation software solution allows your organization to maintain compliance—both with internal policies and industry-standard regulations such as PCI, SOX, and HIPAA. Utilizing policies, administrators are able to detect changes and apply configuration updates across single or multiple servers. If there are regulatory standards, HPE offers a subscription service via the **HPE Live Network**, which provides the latest versions of multiple standards so that your server estate is always audited against the right standards.

HPE Data Center Automations solution reduces time to audit by providing up-to-date compliance information, allowing for automated enforcement of policies. It provides real-time reporting and integrated audit and remediation, so you maintain continuous compliance.

Using a well-defined process of end-to-end lifecycle and policy management, HPE Data Center solution also helps remediate policy issues and manage "compliance drift." With HPE Data Center Automation software you can set up IT compliance rapidly in four steps:

1. **Identify policies:** Use out-of-the-box policies for regulatory standards and industry best practices (PCI, CIS, HIPAA, FISMA, etc.); define additional policies and requirements; and have subject-matter experts review and add rules to scan and remediate.

2. **Define services:** Import and synchronize business service definitions from the CMDB (configuration management database) or service catalog.

3. **Subscribe services to policies:** Link each service to the policies it needs, and leverage existing processes such as change approvals, notifications, and so on. It is also possible to link policies to services in the catalog so compliance begins when the service is created.

4. **Enforce SLOs:** The HPE Data Center Automation solution determines which rules to run, for which resource, at what time. It will scan and remediate all the different resources in a business service regardless of resource type. This enables customers to enforce service level objectives and maintain ongoing IT compliance across the data center.

   In addition, the compliance capability adds value by summarizing and analyzing issues. DCA software provides automated change detection and centralized policy enforcement and remediation, and delivers business service context, unified compliance policies across IT silos, prioritized remediation according to business, IT, and end-user requirements, and the ability to meet the needs of a wide range of stakeholders—including platform engineers, compliance architects, the chief information security officer, CIO, and business service owners.

Operations orchestration

The HPE Data Center Automation software solution connects automated tasks with automated processes. In other words, it allows for the automation of a wide range of IT processes such as incident remediation, service fulfillment, change management, and disaster recovery.

This capability, in turn, enables IT staff to reduce manual errors and latencies during task transition, across siloes. Now IT teams can design, customize, and deploy services securely in test and production as well as across private and public cloud environments. The **HPE orchestration engine** is the most open and extensible in the market, with an open API that allows customers to integrate and automate processes with and across hundreds of applications from anywhere.

HPE Data Center Automation solution improves service quality and customer satisfaction while reducing costs by eliminating latency between silos, increasing the first-time-right rate, enforcing standards, and delivering reports for ROI, audits, and more. As you increase the percentage of routine IT processes that are automated, you'll see an increase in your OpEx savings. You'll also see a reduction in service tickets and mean time to resolve/repair issues from hours to minutes or seconds. Key features and capabilities include:

- **Develop automated workflows faster in a standalone IDE**

  – Author flows from anywhere—connection to an **HPE OO** server is not required.

  – Leverage a standard development process across multiple authors.

  – Support hundreds of authors across regions, lines of business, levels of expertise, and geographies to create re-usable server automation flows.

- **Save time with easy-to-use flow generation wizards**

  – Automate flow authoring with the intuitive PowerShell Wizard.

  – Integrate enterprise applications seamlessly and efficiently using the Web Services Wizard.

  – Translate Swagger APIs to OO operations and flows with the REST Wizard.

  – Interact with non-Swagger RESTful services using REST APIs from the HTTP client library.

- **Debug flows remotely**

  – Reduce risks and guesswork associated with debugging flows using remote debugging features.

  – Enable faster deployment of process automations.

  – Simplify the debugging process further by leveraging intuitive dashboards and filters.

IT operations portal

The IT operations portal provides a simple self-service interface that increases IT operator efficiency through data center automation. Tasks such as provisioning, patch management, software deployment, and service-level compliance can now be achieved in a few clicks, across a few servers or thousands of servers, reducing IT service delivery times from months to minutes.

Using pre-defined policies, the administrator can simplify day-to-day operations and focus on innovation rather than routine tasks. These capabilities help accelerate and improve the accuracy of changes, avoiding change-related IT incidents. They also save money in labor avoidance by streamlining and maximizing efficiencies in how you manage your data center.

Virtual appliance architecture

The HPE Data Center Automation solution offers a pre-integrated, production-ready virtual appliance (VA) for small to medium deployments, with out-of-the-box content packs and service offerings for faster time to value.

The data center automation solution also accelerates time to value by providing out-of-the-box content packs and an automated first-time setup experience. You can start using it in a matter of hours. And the DCA solution facilitates ongoing maintenance of the management environment.

HPE Data Center Automation Solution key benefits:

- **Provides fast time to value:** Bring instant time to value for small to medium deployments.

- **Reduces OpEx:** Improve server to admin ratios in excess of 500:1 while reducing risks caused by manual misconfigurations by automating repetitive tasks.

- **Improves efficiency:** Automated change management and daily tasks across silos and systems reduce complexity and risks associated with manual processes.

- **Increases business agility:** Reduced infrastructure deployment time and reduced provisioning time of end-to-end business services enable IT to react more quickly to changing business needs.

- **Enables comprehensive management:** Private, public, and traditional IT servers, databases and middleware tasks are managed within a comprehensive, unified, enterprise-grade environment.

- **Improves service quality:** Automate event and incident triage. Automated diagnosis and resolution reduce escalations and mean time to repair (MTTR).

- **Provides a unified view:** A single solution manages physical and virtual servers while utilizing best practices for process automation.

- **Improves process adoption:** The standardization of tools and processes aligns with the needs of the business.

HPE Data Center Automation solution comparison

DCA use case	Express	Premium	Ultimate
90-day trial (includes ITOC trial)	Y		
Operations portal with automated service offerings	Y	Y	
Design automated service offerings for IT operations team	Y	Y	
Automate IT operations with OOTB workflows and integrations	Y	Y	Y
HPE OneView integration with DCA suite	Y	Y	Y
Provision, configure, and migrate servers (multi-platform support)	Y	Y	Y
Deploy and manage server applications	Y	Y	Y
Patch and update servers	Y	Y	Y
Windows® 7 x64 and Windows 8.1 x64 support	Y	Y	Y
Satellites for remote site management	Y	Y	Y
Discover, provision, configure, patch DBs and middleware		Y	Y
Provision, configure, and upgrade network devices and OS versions		Y	Y
Real-time change detection for network devices		Y	Y
Manage database in-place upgrades and migrations		Y	Y
Database and middleware code release		Y	Y
Audit and remediate server OS compliance		Y	Y
Database compliance, audit, reporting, and remediation			Y
Audit network configuration, OS versions, and compliance state			Y
Recovery management	Hypervisor-based	Hypervisor-based	Multi-master and HA
Scalability	5K OS is per virtual appliance	5K OS is per virtual appliance	Unlimited scalability

Learn more at
hpe.com/software/dca