Hewlett Packard Enterprise

Benefits of SMB Digital Transformation: Management and Automation

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Proper management and effective automation are essential to getting IT operations and digital transformation right for all small to midsize businesses (SMBs).

HPE provides visibility and access to vital IT management and automation capabilities. These things permit IT to be more productive, and to respond better to input and requests from end users, customers, and stakeholders. This paper looks at how IT automation supports typical uses in SMBs.

Digital transformation is the evolution of business activities, processes, competencies, and models to fully leverage the opportunities and capabilities of new digital technologies. Modern businesses, including SMBs, are under considerable pressure to grow and improve by implementing new technologies for digital transformation. The ultimate goal, of course, is to bring customers, partners, and suppliers together in real time and empower employees to maximize their productivity.

> Proper use of automation tools and frameworks can help IT (and businesses of all sizes and scales, including SMBs) be more productive and responsive to users and stakeholders.

To aid the process of digital transformation, HPE drives certain primary outcomes for its customers. Most notably, these include efficiency, agility, and innovation, as follows:

- **Efficiency** comes from task automation. In fact, automation drives IT's costs down and thereby frees up funds for other projects and initiatives.

- **Agility** comes from process orchestration. Such orchestration enables timely execution of projects and tasks, reducing the time necessary to respond to business requirements. To a large extent, this involves self-service IT that lets end users and stakeholders get much (or most) of what they need for themselves, without having to wait for IT to respond to service requests.

- **Innovation** occurs when the aforementioned gains from improved efficiency and agility free up people, time, and resources. This added capacity and capability provide more opportunities for organizations to identify, pursue, and implement new or enhanced business processes, products, and services. Improved productivity usually translates into improved profitability, so this is a welcome benefit that pays good dividends.

HPE can help SMBs realize their own digital transformations across the entire IT lifecycle. In the following sections, you'll learn how HPE can help SMBs deal with issues related to management and automation.

Management and Automation in the SMB Environment

Within IT, management means more than simply watching over and taking care of systems, assets, and infrastructure. It covers the entire IT lifecycle from initial determination of needs and requirements; to evaluation and selection of technologies, tools, and platforms; to negotiating purchase and support costs; to installation and configuration; through upkeep and maintenance and ongoing review; all the way to decommissioning and proper surplus operations or outright destruction at end of life (recommended for old storage media used for sensitive data, for example).

In fact, management has been a formal IT discipline for over three decades. That's long enough for the initial management model to become outmoded and be replaced with something newer and more robust. The early model was sometimes called FCAPS: for fault, configuration, accounting, performance, and security, all management categories covered under that model. Modern IT management falls under the heading of IT Service Management (ITSM). These days, ITSM means understanding the IT lifecycle, and how delivering quality IT is itself a service discipline that follows an agile DevOps-inspired approach called CI/CD—continuous integration along with continuous delivery.

In IT, automation generally refers to the use of recorded and repeatable instructions or directives that do programmatically what an IT professional does manually (by entering commands, running a user interface, using tools and utilities, and so forth). Once automated, software tools, frameworks, and appliances can handle tasks with little or no human interaction. IT automation has a broad scope that runs all the way from single actions, to specific sequences of instructions, to full-blown IT deployments whose actions respond to security incidents, user behaviors, or specific event or value triggers.

Proper use of automation tools and frameworks can help IT (and businesses of all sizes and scales, including SMBs) be more productive and responsive to users and stakeholders. First, automation runs much faster than human–computer interactions can. In fact, automation is hundreds to thousands of times faster than manual input, especially for simple, routine tasks. This makes proper automation especially useful for incident response because it can move as quickly to defend as an automated attack can proceed. Second, because automation can (and should) be tested rigorously to make sure it works without errors or issues, it's also more reliable than human input once it's put into production. Given access to results from analytics, cost, or performance monitoring data, automation can also take action to limit resource consumption when costs exceed a preset minimum or when resource consumption spikes.

In general, proper use of automation helps IT (and the businesses it supports) be more productive and responsive to changes in demand or resource requirements. Typical uses of IT automation in SMB operations include:

- Monitoring networks, servers, and clients for health

- Tracking vulnerabilities and update status

- Automated deployment of patches, fixes, and updates

Because automation helps IT do more—and do things faster and more reliably—it's a huge boon to SMB IT teams, which often work under tight resource constraints (especially headcount).

In the sections that follow, you'll learn more about some HPE offerings that can be of particular help and value to SMBs and their IT organizations.

Gain AI/ML Insight Across Your Operations with HPE InfoSight

Artificial intelligence and machine learning (AI/ML) can deliver valuable benefits to SMB IT organizations. The intelligence and insights that AI/ML provide often prove particularly helpful in organizations where human resources are tight, and spare bandwidth to

cover strategic analysis and planning may simply be unavailable. A management philosophy called AIOps is emerging in IT, whereby insights and information elicited from AI models and analyses is immediately put to work to help organizations make better, more efficient use of the IT assets and resources available to them (both on-premises and in the cloud). And, of course, automation plays a key role in such capability because it provides a reliable, well-tested framework within which speedy, program-driven IT management becomes possible.

> HPE InfoSight helps SMBs make their IT assets more available and reliable, and assists in optimizing application performance and in planning for growth and expansion of IT resources.

HPE InfoSight, a predictive analytics tool that uses AI and ML to address IT issues before they can impact the infrastructure, has over 10 years of collecting telemetry data and retraining ML models. Each second, millions of sensor measurements capture the state of systems, subsystems, and surrounding IT infrastructure within thousands upon thousands of organizations. This data is collected and analyzed across the entire HPE global installed base. More data leads to greater insights and enables HPE InfoSight to make more intelligent decisions and recommendations. A global intelligence engine sits at its heart. This is where cloud-based ML comes into play. From the insights the intelligence engine provides, HPE InfoSight can:

- Make recommendations

- Provide proactive wellness, monitoring, and adaptive behavior through global learning

- Create and apply workload fingerprints

- Apply predictive analytics

- Automate support wherever and whenever possible

By leveraging analytics collected across countless HPE customer platforms around the world, HPE InfoSight iterates through innumerable cycles of observing-learning-predicting-recommending-acting. This process allows advanced visualizations and dashboards for users and supports a fully workload-optimized infrastructure.

In addition, HPE's Pointnext Services can help IT organizations plan and do more by tapping the expertise of its consulting staff (who may have skillsets that are difficult or impossible to develop in-house in an SMB). They can help customers go beyond traditional hardware support to offer recommendations on how to optimize and run their workloads better, cheaper, and faster. All in all, HPE Pointnext offers SMBs the precious commodity known as "peace of mind," secure in the knowledge that their IT operations are effective and optimal.

For most SMBs, HPE InfoSight lets them optimize IT performance, as the global data patterns let them predict and prevent problems before they become serious. HPE InfoSight also helps make infrastructures smarter and keep improving themselves, based on observation and repetition of what works best for current situations and circumstances. Thus, HPE InfoSight helps SMBs make their IT assets more available and reliable, and assists in optimizing application performance and in planning for growth and expansion of IT resources. When HPE Pointnext Services comes into the picture, its consultants can offer further recommendations to optimize workloads and enhance productivity.

Efficiently Manage Your Servers with HPE Integrated Lights Out (iLO) Facility

The HPE Integrated Lights Out (iLO) facility is a toolset designed to manage servers efficiently, resolve issues quickly, and keep businesses running. Better yet, iLO works from anywhere and provides all firmware, drivers, and tools needed for installations and upgrades. It also makes HPE servers immediately ready to provision and configure, right out of the box.

iLO's integrated system and OS configuration tool simplifies and speeds up server installation and setup,

supports rapid setup capabilities, and works with HPE OneView automation. iLO also offers important security features. These include a silicon-based root of trust that prevents malware (especially rootkits) from inserting itself into hardware before the boot process (and OS start-up) completes. iLO provides a server configuration lock to prevent unauthorized changes, and includes a one-button secure erase tool to remove all previous content when a new server image gets installed. In general, HPE iLO supports the world's most secure industry-standard servers (see the "HPE Secure Compute Lifecycle: Building on the world's most secure industry standard servers to optimize your security environment" whitepaper for more information).

> HPE OneView provides an integrated, general-purpose IT infrastructure management platform.

In addition to basic iLO functions built into HPE ProLiant servers, available upgrade options include the following:

- Graphical remote console (free until end of 2020)

- Multi-user collaboration

- Video record/playback

- Discover, inventory, and update OS, applications, drivers, and firmware

All this capability makes HPE iLO a real workhorse for SMB server operations. In the following section, you'll learn about HPE OneView, a general IT infrastructure management and automation toolset, which also includes all of the HPE iLO capabilities.

Automate Your Infrastructure with HPE OneView

HPE OneView provides an integrated, general-purpose IT infrastructure management platform. It also supports automation of IT operations through workflows, along with a modern dashboard (**Figure 1**) and a
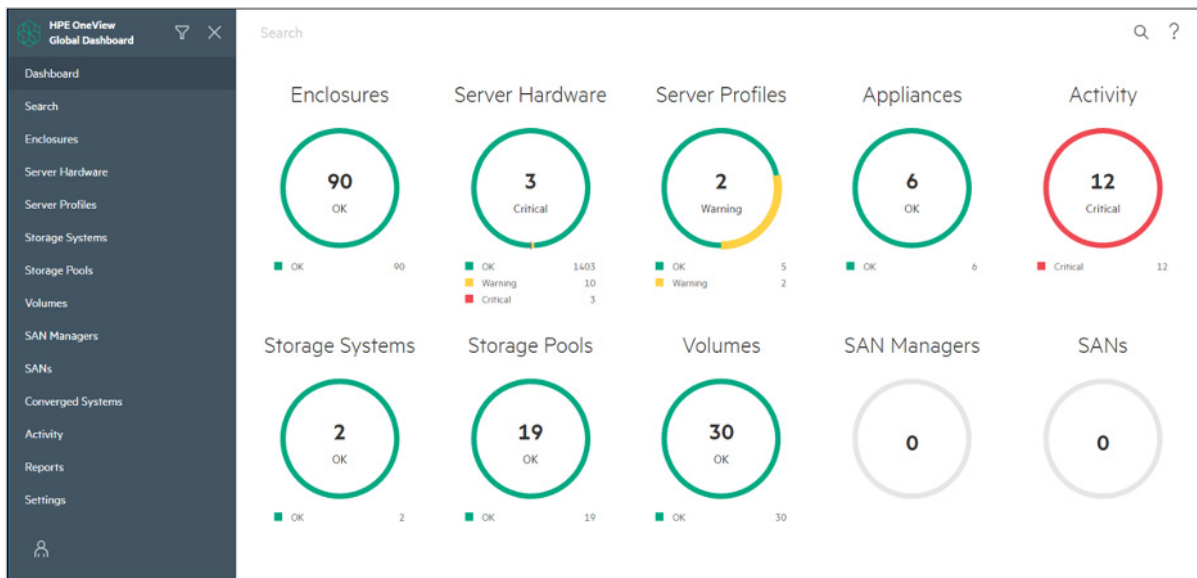
Figure 1: The HPE OneView Global Dashboard helps IT staff troubleshoot alerts and view core inventory data for up to 75 HPE OneView appliances and 20,000 servers in multiple data centers across the globe

comprehensive partner ecosystem. HPE OneView uses software-defined intelligence to enable automated infrastructure provisioning with repeatable, easy-to-use templates. These templates ensure high reliability, consistency, and control, and can lead directly to lower operating expenses.

> iLO's integrated system and OS configuration tool simplifies and speeds up server installation and setup, supports rapid setup capabilities, and works with HPE OneView automation.

HPE OneView also helps to simplify lifecycle management for all common IT resources, including computer, storage, and networking. IT administrators can compose on-premises physical infrastructure quickly and easily, because that physical infrastructure is defined using software. This makes the infrastructure directly programmable (and easy to automate), and lets you manage it as you'd manage code—through a single, unified API. Better yet, HPE OneView gives IT administrators the

tools they need to connect their software-defined infrastructure from core to cloud by provisioning a turnkey private-cloud infrastructure through its partner ecosystem (including various Microsoft Azure and VMware offerings; see the HPE Infrastructure Automation Made Simple brief).

HPE OneView supports the HPE product portfolio, including its servers, storage, and networking equipment. For all those IT elements, HPE OneView provides simple and automated management of infrastructure and assets. For more information please visit the HPE OneView home page.

The One-Two Punch of Management and Automation

In modern IT operations, management tools and insights provide information, control, and overview of systems and infrastructure. Automation supports rapid, accurate response and boosts IT productivity and capability. Let HPE InfoSight, iLO, and HPE OneView bring these benefits to your business. For more information, please visit www.hpe.com/info/smb today.