

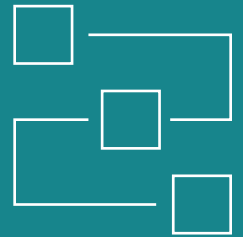
Save valuable time managing rack servers with HPE OneView

Completing routine tasks from a single console can reduce time and effort vs. doing the same tasks manually

The upsides of a growing business are obvious—it's the challenges that may catch you off guard. As you add hardware to meet growing business needs, new rack server deployment and lifecycle management can swallow administrators' valuable time, which takes them away from the work that will continue to fuel business growth. These routine management tasks become more of a burden as the size of a deployment grows.

For HPE ProLiant DL servers, HPE OneView provides a management platform that can speed up and simplify common tasks compared to doing the same steps manually. In the Principled Technologies datacenter, we updated firmware, changed BIOS settings, and configured a RAID array on an HPE ProLiant DL380 Gen10 server. First, we did these tasks manually. Then, we used HPE OneView with server profiles, managing two ways: from the HPE OneView console and using the HPE OneView module for Ansible. HPE OneView sped up management tasks and reduced the number of steps to completion, minimizing the chance of human error and saving IT resources.

As your business continues to grow, and IT resource needs and initiatives with it, using HPE OneView to manage your HPE ProLiant servers can save your administrators time and effort for routine tasks using their preferred console.



Only 5 steps to deploy multiple servers



Spend 75.2% less time to deploy a server

Deploying and managing servers with HPE OneView vs. manual methods

Convenient, intuitive management platforms aren't just for blade servers. Administrators can use HPE OneView to manage their rack server environment as well, saving significant time and effort on routine deployment and maintenance tasks.

In our datacenter, we deployed an HPE ProLiant DL380 Gen10 server and completed management tasks on it (updating firmware, changing BIOS settings, and configuring a RAID) using three different approaches:

- Manual
- HPE OneView with server profiles, using:
 - HPE OneView console
 - HPE OneView module for Ansible

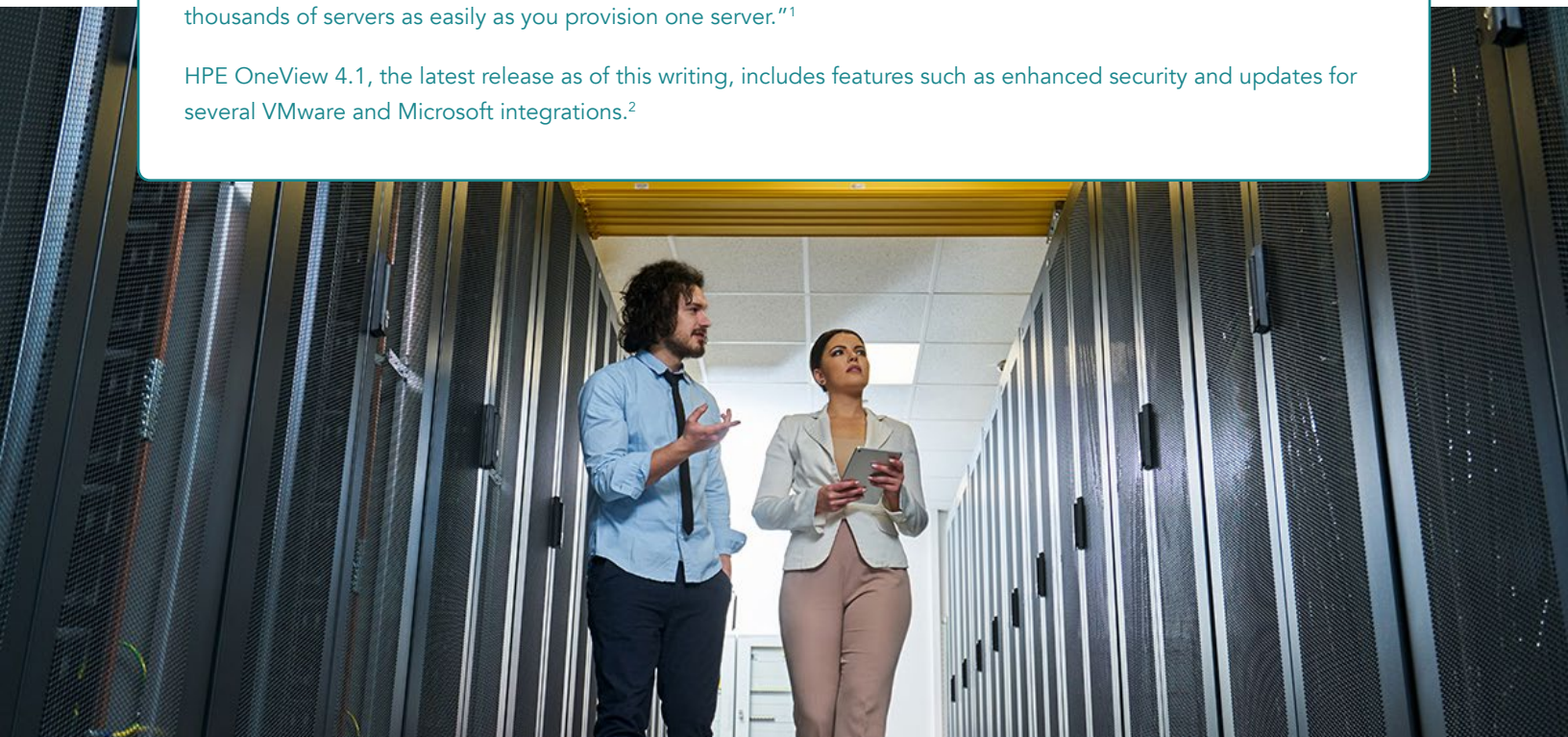
The tasks we chose are representative of common deployment and lifecycle management tasks that administrators must complete as they add new servers as business grows.

Managing rack servers with HPE OneView

HPE OneView is a converged infrastructure management tool that lets you manage storage, server, and networking resources from a single location. With HPE OneView, developers and administrators can automate tasks that they would otherwise need to perform manually, such as deployments and maintenance updates.

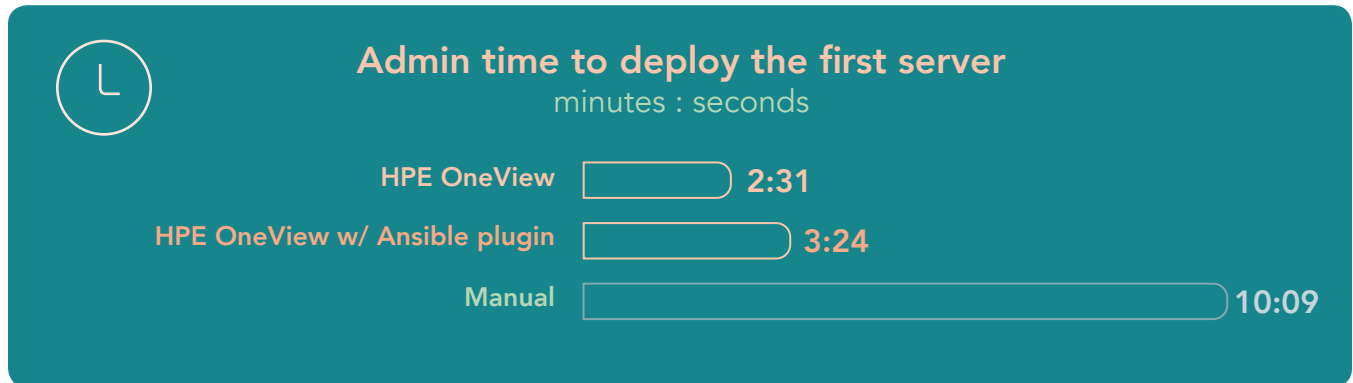
HPE OneView has a variety of tools to help administrators integrate its features into the existing workflows and environments of its partner ecosystem, which includes products from VMware®, Microsoft®, and Red Hat®. HPE OneView also offers the ability to make server profiles that, according to HPE, enable you to provision "hundreds or thousands of servers as easily as you provision one server."¹

HPE OneView 4.1, the latest release as of this writing, includes features such as enhanced security and updates for several VMware and Microsoft integrations.²



Deploying and managing a single server

If you have even a small deployment, HPE OneView can simplify common administrator tasks. We changed BIOS settings, configured a two-disk RAID virtual disk, and updated firmware via HPE Integrated Lights-Out (iLO) on a single server (presented as collective hands-on management time in the chart below).

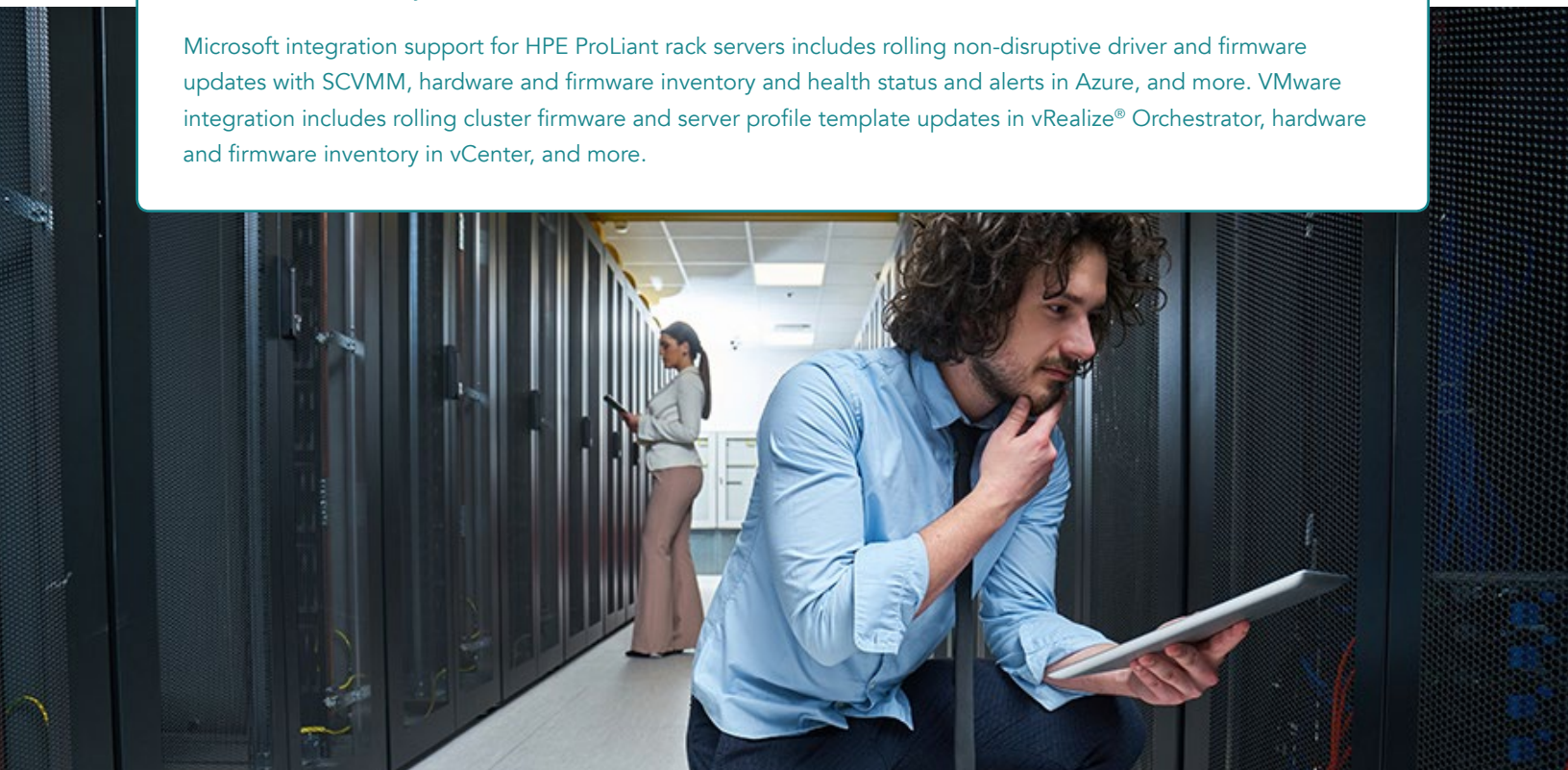


Using HPE OneView sped up a lengthy manual task, reducing administrator hands-on time by 75.2 percent. The HPE OneView management time included creating a server profile template and applying a profile from that template. Administrators managing their environment with Ansible can use the HPE OneView Module for Ansible to complete management tasks. For deploying the first server, this time includes the HPE OneView time up to the end of server template creation plus additional time to create and run a shell script in Ansible to deploy a server profile.

HPE OneView gives you many ways to manage

Do you like managing through a console you already know? HPE OneView provides plugins that allow you to do so for platforms such as VMware vCenter® and Microsoft System Center. With these plugins, you can monitor your HPE ProLiant DL servers' health, hardware inventory, and firmware inventory without navigating away from your VMware vCenter or Microsoft System Center consoles.

Microsoft integration support for HPE ProLiant rack servers includes rolling non-disruptive driver and firmware updates with SCVMM, hardware and firmware inventory and health status and alerts in Azure, and more. VMware integration includes rolling cluster firmware and server profile template updates in vRealize® Orchestrator, hardware and firmware inventory in vCenter, and more.





Deploying and managing additional servers

Deployment and maintenance of multiple servers is where the value of HPE OneView for rack server management becomes even more clear. Each time you deploy or manage a server using the manual approach, an administrator must complete all the same steps, server by server. That hands-on time adds up fast as you add servers, especially for large deployments.

With HPE OneView, administrators need only spend an extra 15 seconds to apply an additional profile from the template after they've set up the appropriate profile template for the first server.

This means that deploying two servers manually would require 20 minutes 18 seconds of hands-on administrator time, while deploying two servers with HPE OneView would require just 2 minutes 46 seconds. Deploying server profiles on additional servers using Ansible requires no extra admin time after the first server, because the Ansible module lets admins run the script on multiple servers at once with no further action required.



Time for each additional server

minutes : seconds

HPE OneView | 0:15

HPE OneView w/ Ansible plugin | 0:00

Manual

10:09

The effort to complete these tasks on multiple servers with HPE OneView is also simpler: manually, admins must complete 21 total steps, while using HPE OneView requires only 5 administrator steps. (Note: The first server deployment using HPE OneView requires 19 steps, most of which create the server profile template. The first server deployment using HPE OneView module for Ansible requires 18 steps: 14 server profile template creation steps through HPE OneView plus four steps in Ansible to create and run the script. Again, because of the Ansible plugin's ability to run server profile deployment scripts on multiple servers, additional servers require no extra hands-on steps.)



Steps for each additional server

HPE OneView

HPE OneView w/ Ansible plugin |

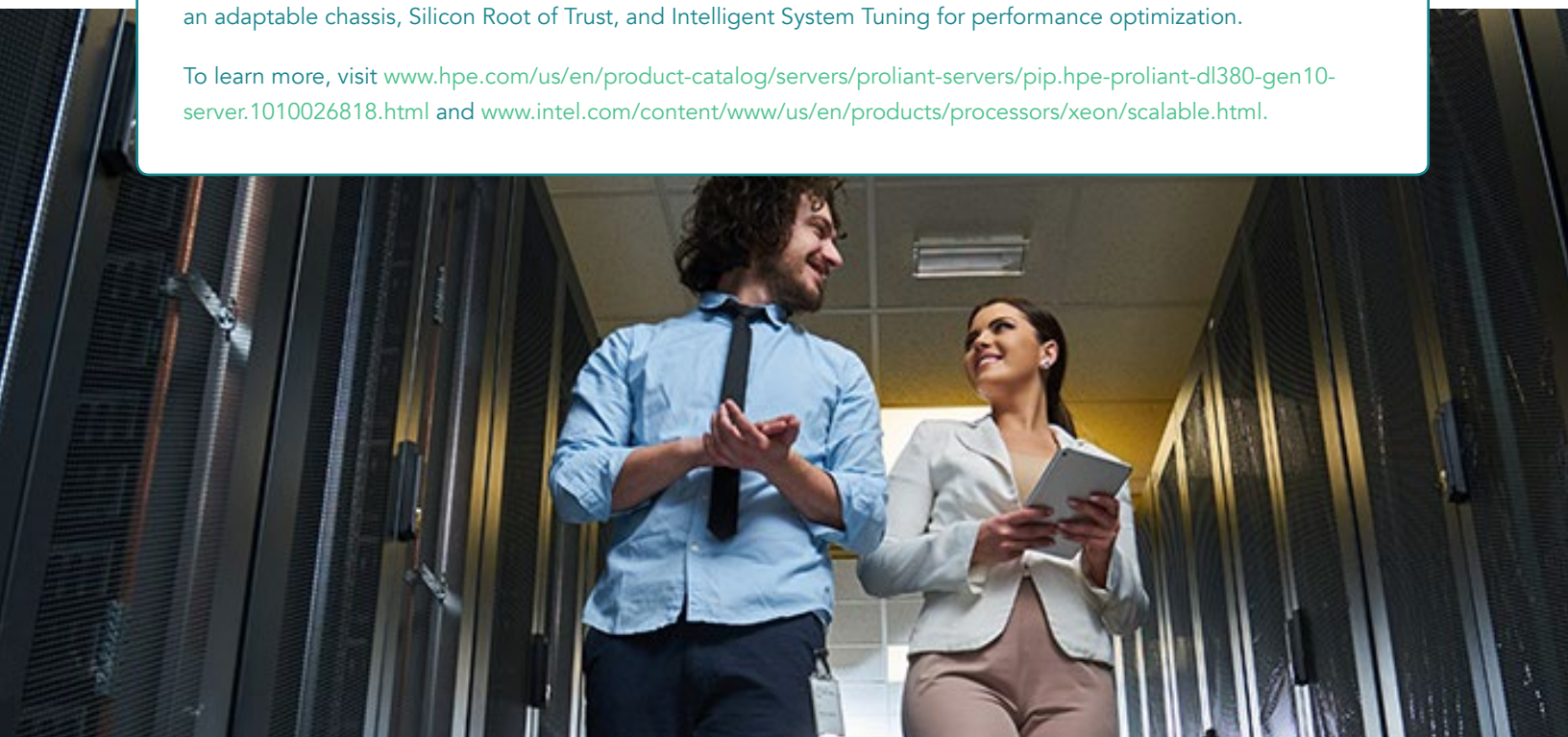
Manual

About the HPE ProLiant DL380 Gen10 server with Intel Xeon Scalable processors

The HPE ProLiant DL380 Gen10 is a two-socket server that features the Intel® Xeon® Scalable processor family—our server used Intel Xeon Gold 6150 processors—and 24 DIMM slots that can support from 128 GB to 3 TB of memory.

According to HPE, the DL380 Gen10 server offers numerous flexibility, security, and performance features including an adaptable chassis, Silicon Root of Trust, and Intelligent System Tuning for performance optimization.

To learn more, visit www.hpe.com/us/en/product-catalog/servers/proliant-servers/pip.hpe-proliant-dl380-gen10-server.1010026818.html and www.intel.com/content/www/us/en/products/processors/xeon/scalable.html.





Conclusion

A growing business is something every part of your team should be excited about, including your datacenter administrators. By giving your admins the tools they need to complete routine tasks, you can save them time and effort that they can then spend innovating and championing initiatives that will fuel even more business growth.

We found that using HPE OneView to deploy and maintain HPE ProLiant DL380 Gen10 servers was significantly faster and easier than doing the same tasks manually. And, thanks to convenient server profile templates that make replicating settings on other servers quick and easy, HPE OneView can save time exponentially as the size of a deployment grows, freeing up valuable IT resources for other crucial projects.

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- 1 HPE, "About server profiles," accessed October 29, 2018, http://h17007.www1.hpe.com/docs/enterprise/servers/on-viewhelp/cic/en/content/s_profile_overview-fusion.html
 - 2 HPE, "HPE simplifies infrastructure management with announcement of HPE OneView 4.1," accessed October 31, 2018, <https://community.hpe.com/t5/Shifting-to-Software-Defined/HPE-simplifies-infrastructure-management-with-announcement-of/ba-p/7004750>

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