

# Streamline day-to-day systems management duties with OpenManage Enterprise

React faster to changing business demands with comprehensive system management tools that automate and streamline lifecycle processes for Dell EMC PowerEdge servers

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Integrating Dell EMC OpenManage Enterprise (OME) into your systems administrators' day-to-day workflows automates time-consuming, manual server lifecycle processes, reducing the risk of errors. Accelerated lifecycle management also frees up time so your IT team—whether that's an individual or a group—can deploy and monitor at scale as your business grows.

This report follows two fictional systems administrators through tasks that include deployment, monitoring, updating, and making changes to servers in their data center environments. It cites third-party-verified testing results for the real-world scenarios in which our fictional SysAdmins find themselves. It also highlights how OME makes multiple positive differences in their day-to-day lives.



### Chantrelle's story

Our first fictional SysAdmin, Chantrelle, just integrated OpenManage Enterprise into her daily routine at a mid-sized law firm with four offices in a tri-city area. She organizes, installs, and supports her firm's computer systems by herself. Her data center consists of 16 Dell EMC PowerEdge servers, networking components and storage.



### Daniel's story

Our second fictional SysAdmin, Daniel, heads the Information Systems department at a highly regulated healthcare system that supports a hospital, medical offices and research facilities. Daniel and his team started using OpenManage Enterprise in the main data center earlier this year when they refreshed their PowerEdge servers. However, they haven't upgraded the infrastructure in the smaller remote data centers yet.

## Benefits of OpenManage Enterprise

**Simplify day-to-day tasks** with an intuitive HTML5 GUI dashboard and elastic search engine for faster response times and improved performance.

**Accelerate lifecycle management** with intelligent automation and solution integrations for better results in less time and with fewer steps.

**Manage up to 8,000 devices, including 3rd party infrastructure**, with this one-to-many systems management console.

**Stay secure and alert** with pre-configuration policies that detect drift and remediate misconfigurations.

## Drive faster hardware rollouts with one-to-many automations

Manual deployment is a time-consuming task that can sidetrack other critical initiatives. OpenManage Enterprise provides a single console where admins can manage up to 8,000 PowerEdge servers and monitor networking, storage, and third-party devices. This enables them to consolidate their workflows and reduce hands-on time and effort—giving them more time for those important initiatives. OME automation can also speed profile redeployments that reset all server settings back to system or factory defaults and wipe the disks.

### Time savings that scale

Chantrelle powers on a new PowerEdge R740xd server and configures the Lifecycle Controller, RAID, and BIOS settings in 9 steps that take a total of 40 seconds. This is the same amount of time and effort Daniel would use for a 250-server rollout. That's because they're both benefiting from the OME one-to-many management capability—meaning that deploying 250 servers takes the same amount of time as deploying one.

According to a June 2020 report by third-party testing firm Principled Technologies, it would take Chantrelle 88 percent longer and over a dozen more steps to complete that same deployment using a manual method that utilizes only iDRAC. Deploying 250 servers manually in one of Daniel's remote data centers without OpenManage Enterprise automation would require a full day's effort and over 5,000 steps.<sup>1</sup>



For 1 server:  
**Save over 4 minutes**  
and up to 14 steps  
vs. manually



For 3 servers:  
**Save over 6 minutes**  
and up to 42 steps  
vs. manually



For 250 servers:  
**Save over 1 day** and  
up to 4,997 steps  
vs. manually



For 1 server:  
**Save nearly 2 minutes**  
and up to 34 steps  
using OpenManage  
Ansible vs. manually

### OpenManage Enterprise integrations

One of the remote data centers that Daniel's team is responsible for has systems that run Red Hat Enterprise Linux®. If Daniel's team had OpenManage Enterprise up and running in that location, the person in charge of rolling out new hardware in this environment could use OpenManage Ansible plugin modules during the new server deployment process.

According to another report by third-party testing firm Principled Technologies, this manual process would take Daniel's tech 72 percent longer and they would have to perform 33 more steps than they would if OpenManage Enterprise was operational in that location.<sup>2</sup>

### How OpenManage compares to other automation tools

While Chantrelle, as the admin of a smaller shop, wouldn't likely use HPE Synergy in her VMware ESXi™ environment, a team of engineers at Principled Technologies determined a tech on Daniel's team could deploy as many server nodes as needed in up to 89 percent less time and with far less hands-on effort than required on a comparable HPE Synergy solution. Daniel's team can also provision assignable storage with zero downtime on a Dell solution—an impossible task on a HPE Synergy solution.<sup>3</sup>

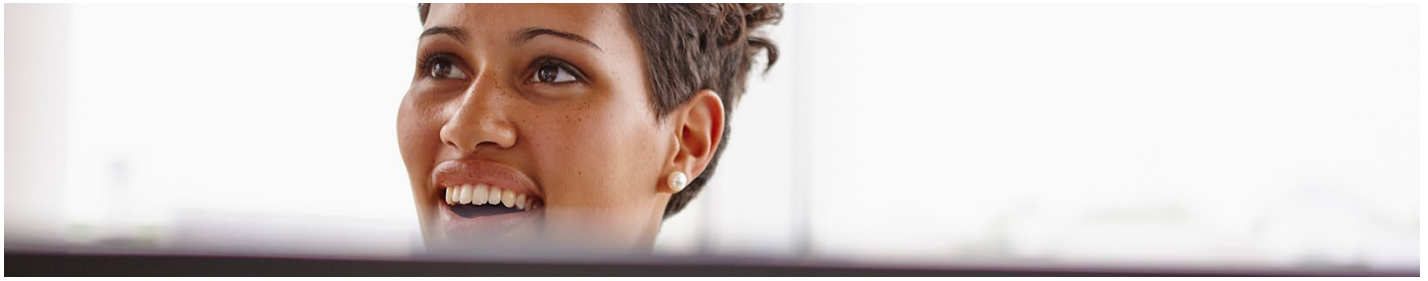
The combination of automation and zero downtime that OME brings to the data center means that Chantrelle can roll out new hardware as soon as possible instead of waiting for a time in the middle of the night or over the weekend that won't inconvenience the lawyers and paralegals she supports. For Daniel, this means his team member can move onto other pressing tasks more quickly.



Deploy 3 server nodes:  
**Save nearly 6 minutes** and up to 15 steps on a  
Dell EMC PowerEdge MX platform with OME  
vs. an HPE Synergy solution



Provision new storage:  
**Half as many steps and zero downtime**  
on a Dell EMC PowerEdge MX platform with  
OME vs. an HPE Synergy solution



Principled Technologies also found that Chantrelle or someone on Daniel's team could also easily deploy multiple server nodes in up to 42 percent less time and with less hands-on effort than it would take on a comparable Cisco UCS solution. Choosing a Dell PowerEdge solution that includes OME also enables IT admins to implement vSAN in up to 86 percent less time and provision assignable storage. Cisco UCS does not offer in-chassis assignable storage modules.<sup>4</sup> This is important because the biggest hurdles IT admins deal with are time constraints and the possibility of user error—so reducing both is a huge advantage.



Deploy 3 server nodes:  
**Save over eight minutes** and up to 21 steps on a Dell EMC PowerEdge MX platform with OME vs. a Cisco UCS solution



Implement vSAN:  
**Save over 44 minutes** and up to 51 steps on a Dell EMC PowerEdge MX platform with OME vs. a Cisco UCS solution

Now let's look at how OME integrations help Chantrelle and Daniel manage their virtualized PowerEdge FX2 Windows environments. Their servers, like all PowerEdge servers, come with iDRAC9 and Lifecycle Controller already embedded. The new Windows server cluster Chantrelle is bringing online will speed staff interactions with their law firm's shared applications, court documents, practice management files, and billing software no matter where the authorized employees are working from. Daniel's team is deploying a small Dell EMC PowerEdge cluster in one of their research facilities with a few hundred users. This is the first step in their push to improve data security and speed user experiences in the healthcare system's remote data centers. As a team in a larger enterprise, Principled Technologies found that Daniel's techs will find deploying a cluster of Windows servers takes up to 97 percent less time and 20 fewer steps than the same process on a comparable HPE Synergy solution.<sup>5</sup>

Chantrelle uses OpenManage Integration for Microsoft System Center (OMIMSSC) in her Microsoft SCCM environment, which gives her greater visibility and control of her environment. Plus, according to another Principled Technologies report, OMIMSSC allows her to manage servers and clusters from a single interface in a fraction of the time it would otherwise take her.<sup>6</sup>



Deploy 3 Windows servers:  
**Save over an hour and 10 minutes** and up to 20 steps on a Dell EMC PowerEdge FX2 platform with OME vs. an HPE Synergy solution

Daniel and his team operate an Microsoft SCVMM environment, where they use OMIMSSC to manage the PowerEdge servers that host virtual workloads running on Microsoft Hyper-V. With OMIMSSC, the team can automate deployment of Storage Spaces Direct (S2D) clusters and perform updates across clusters without workload interruption. In another report by the third-party testing firm, Principled Technologies found that IT admins can manage servers and clusters from a single interface in half the time it would require in an HPE Synergy environment.<sup>7</sup>



**Deploy multiple OSEs in 87% less time** and with 24 fewer steps using OMIMSSC on a Dell EMC PowerEdge FX2 platform vs. an HPE Synergy solution



**Deploy one or more Hyper-V hosts in 46% less time** using OMIMSSC on a Dell EMC PowerEdge FX2 vs. HPE Synergy solution

## Save time and effort with unified monitoring and management

With iDRAC9 in conjunction with the OME Suite, Chantrelle and Daniel can unlock real-time, granular views of server performance data to spot trends and anomalies. With these insights, they can more easily optimize the end user experience.

### Accelerate performance on machine learning workloads

The healthcare system Daniel works for uses machine learning models for holistic patient data management, medical diagnoses, and anomaly detection. These workloads require massive amounts of compute power, which generate a lot of heat and could send cooling costs through the roof.



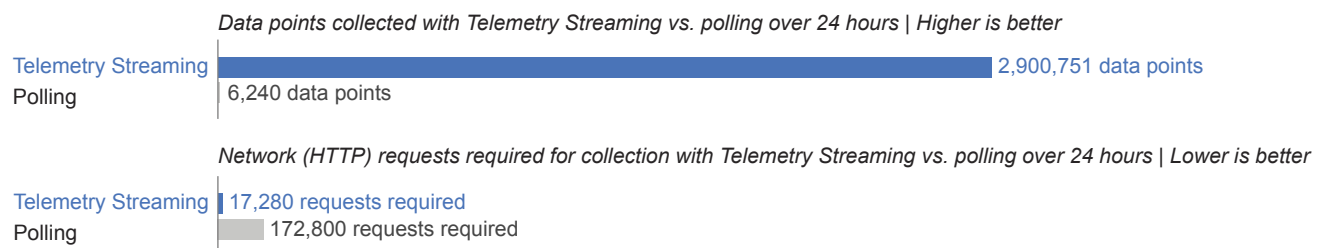
iDRAC9 with Multi-Vector Cooling delivers granular GPU info and fan control in real time

Daniel convinced the CIO to invest in Dell EMC PowerEdge C4140 servers equipped with NVIDIA® Tesla® V100 GPUs instead of a Supermicro® solution for these AI workloads—and that investment has paid off. With the Dell EMC PowerEdge servers, Daniel and his team can view and control server power consumption in real time from the OpenManage Enterprise interface. Daniel learned about the solution from another Principled Technologies report, where the third-party testing firm revealed that the Dell EMC solution “achieved more work than a Supermicro solution did and kept the GPUs cooler.”<sup>8</sup>

Daniel’s next big data center goal is predictive and proactive server management. To do that, he’s investigating the best way to integrate advanced telemetry about their server hardware into the organization’s existing analytics solutions. He can accomplish this with the new iDRAC9 v4.00.00 firmware release. According to a February 2020 report by third-party testing firm Tolly, “iDRAC9 v4.0 Telemetry Streaming provides high-value data including GPU monitoring, Advanced CPU metrics, Storage Drive SMART Logs and Advanced Monitoring.”<sup>9</sup>

Chantrelle is also looking into implementing iDRAC9’s Telemetry Streaming capabilities with Splunk to ensure a superior user experience. According to another report by Tolly, Chantrelle can unlock the true value of Big Data with Splunk for in-depth analysis and visualization.<sup>10</sup>

### iDRAC9 v4.0 provides highly granular, high-value data using resource-efficient data streaming



“Benefits of using Telemetry data to ensure superior user experience:

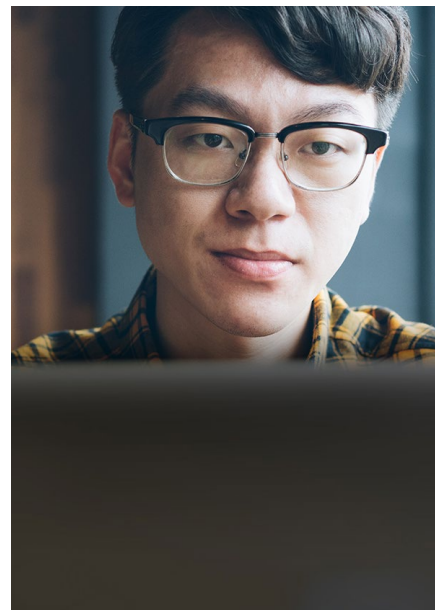
- Wide range of high-value data including power, thermal, GPU monitoring, advanced CPU metrics and Storage SMART Logs with agent-free collection
- Simple integration into Splunk platform to provide analysis and visualization
- Ability to spot high level trends along with “drill down” capability into low-level detail data
- Time series data that assures no missed data points which can occur in large polled environments
- Greater insights into the IT environment to drive business outcomes<sup>11</sup>

## Make updates before they cause breaches, downtime, or compliance issues

Many companies schedule monthly maintenance windows to handle OS, application, and firmware updates. With OME, systems administrators can stage firmware updates for the next time the system is rebooted or for a scheduled deployment. This way, no one has to be physically present to execute them.

Chantrelle understands waiting too long to perform firmware updates can be a costly mistake, so she prioritizes them as an important component of cybersecurity plan. According to Gartner, “By 2022, 70% of organizations that do not have a firmware upgrade plan in place will be breached due to a firmware vulnerability.”<sup>12</sup>

Firmware update management is a cornerstone of Daniel’s security program. In fact, before they implemented OpenManage Enterprise, he had one person on his team whose full-time job was manually making sure everything in all the health system’s data centers was up to date and compliant. Now, that person is the Data Center Operations Engineer.



### Firmware updating

Per a Principled Technologies report from March 2021, if Chantrelle uses OpenManage Enterprise 3.5 to update Dell EMC server firmware on 3 of the servers in her data center, she could finish the task 98 percent faster than she could if she did it manually. In Daniel’s larger environment, the one-to-many OME capability-related time savings really add up.<sup>13</sup>



For 3 servers:  
**Save 41 minutes  
and 18 seconds**  
vs. manually

### Certificate renewal

Additional testing from Principled Technologies shows that implementing OpenManage Enterprise means neither Chantrelle nor Daniel’s team have to worry about scheduling, tracking or maintaining iDRAC SSL certificate renewals with a new feature in iDRAC v4.0.<sup>14</sup>

#### Remove iDRAC SSL certificate renewal from admin tasks



Automated renewal with iDRAC9 v4.0 requires **0 steps and 0 time** (after initial setup vs. manual renewal)



**Save 45 work days** over 3 years with a 3-month renewal period\*\*



**Save 22.5 work days** over 3 years with a 6-month renewal period\*\*

\*\*For 1,000 servers

## Hardware compliance

According to another Principled Technologies report, Chantrelle will spend up to 89 percent less time and considerably less effort when she uses the OpenManage Integration for Microsoft System Center in her Microsoft SCCM environment.<sup>15</sup>



**Update firmware for multiple OSES in 89% less time and 34 fewer steps** using OpenManage Integration for Microsoft System Center on a Dell EMC PowerEdge FX2 platform vs. an HPE Synergy solution

Now let's investigate how the OME integration for VMware vCenter® (OMIVV) can help Daniel's team. The multigenerational Dell EMC server cluster Daniel's team is working with for this example contains the health system's shared applications, electronic medical records (EMR), management files, and billing software. It supports 800 concurrent floating desktop users and 78 dedicated desktop users, with the ability to scale to 2,000 users. According to a Principled Technologies report, OME automation brings simpler, faster management options for data centers equipped with multigenerational servers.<sup>16</sup> Plus, with the addition of the OMIVV tool, Daniel's team can manage new and existing virtual layers simultaneously from within VMware vCenter.



### Update hypervisor

**34x faster:**

Less than 3 minutes vs.  
1.3 hours manually



### Complete hypervisor and

**firmware updates 68x**

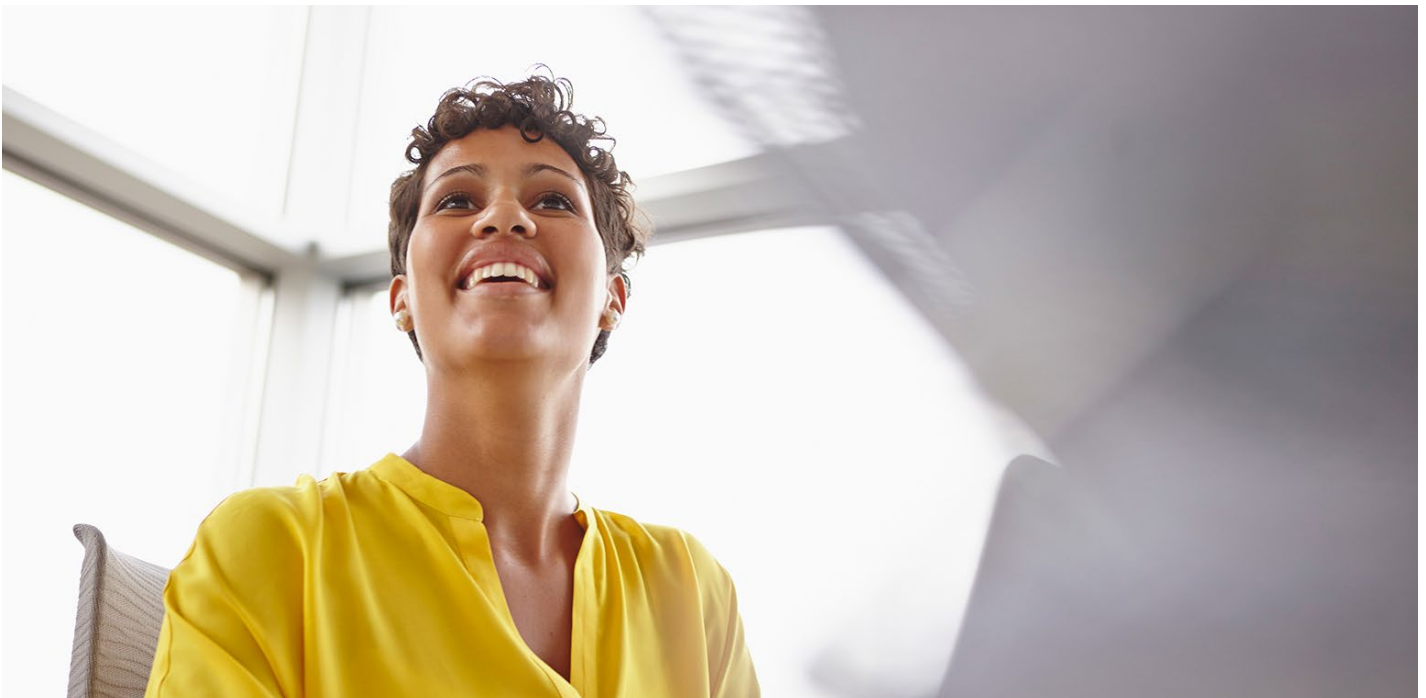
**faster:** Less than 4 minutes  
vs. 3.5 hours manually

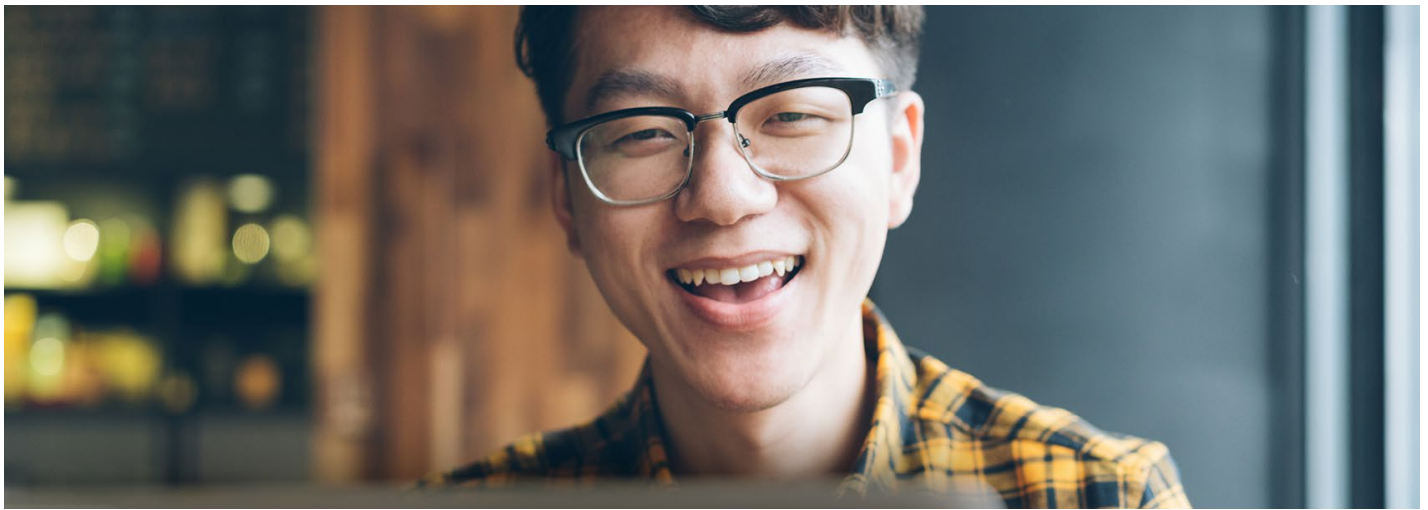


### Complete hardware

**compatibility checks 7x**

**faster:** Less than 3 minutes  
vs. 23 minutes manually





## React more quickly to changing business demands

In any business environment, change is necessary—whether your tech team is addressing end user complaints or replacing hardware that has stopped performing optimally. OME and its integrations automate many processes to facilitate changing business demands.

### Tracking service tickets

Creating, updating, and resolving service tickets manually can result in techs cherry-picking jobs as well as having important client requests fall through the cracks—problems that can negatively affect service quality and customer satisfaction. According to a Principled Technologies report, if either of our fictional SysAdmins automate event and incident management with Dell EMC OpenManage Integration with ServiceNow (OMISNOW), they will immediately see vast improvements to their service tickets processes. The one-to-many OME capabilities also ensure these time savings scale as their businesses grows. Additionally, according to Principled technologies, OMISNOW will eliminate the need for Chantrelle or someone on Daniel's team to create, update, and resolve tickets after initial setup.<sup>17</sup>



**Save up to  
10 hours of  
admin time**  
per 500 events  
with OMISNOW  
vs. manually

### Repurposing hardware

Chantrelle is deploying a profile that resets all the settings on three legacy servers back to factory and wipes the disks. Daniel and his team are repurposing the stand-by gear they use for backup and disaster recovery efforts during tornado season. The threat of natural disaster is lower now, so they are reallocating these resources to ongoing biomedical research projects. Both activities will take the exact same amount of admin time and effort.

According to a Principled Technologies report, manually repurposing 250 servers would take over 99 percent longer and 1,741 more steps than it would with OME.<sup>18</sup>



For 250 servers:

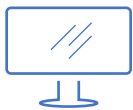
**Save nearly 5 hours and up to 1,741 steps with OME**

vs. manually (Extrapolation based on testing of one, two, and three servers)

## Conclusion

With the tools and integrations available in the OpenManage Enterprise systems management suite, systems administrators in any environment can react faster to changing business demands. The agile, intelligent, one-to-many automation drives faster hardware rollouts and reduces repetitive tasks for accelerated lifecycle management. OME brings scalable administrative time and effort savings for any size environment.

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