



Spend less time, effort, and money by choosing a Dell EMC server with pre-installed Microsoft software

Deploying a Dell EMC PowerEdge R740 with pre-installed Microsoft Windows Server 2016 Standard took less time and fewer steps than deploying the same server without it

Your IT admins would likely appreciate a simpler and easier server deployment process, even if they're experienced or follow a thorough checklist. Pre-installed instances of Microsoft® Windows Server® 2016 Standard ease the deployment process, helping ensure your IT admins can deploy servers quickly and efficiently.

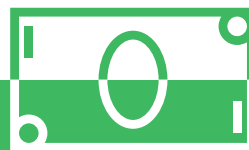
In the Principled Technologies datacenter, we deployed a new Dell EMC™ PowerEdge™ R740 server with and without pre-installed Microsoft Windows Server 2016. Having the pre-installed software made deployment faster and easier, which allows IT admins to spend more time focusing on critical datacenter projects and helps get servers ready to run applications sooner. In addition to saving time and effort, having pre-installed Windows Server 2016 saves money compared to buying the server and software license separately, which helps any organization's bottom line.

This report shows how simplifying server deployment with pre-installed Windows Server 2016 lets your IT admins devote more time to other projects and saves money for your organization.



Faster

Deploy a server in
82% less time*



Less expensive

Save **\$222** (or up to **25%**)
on licensing costs[†]

[†]Licensing cost for pre-installed software will depend on your choice of software edition and processor, so savings can vary.



Easier

Deploy a server in
33 fewer steps*

*by choosing a PowerEdge server with pre-installed Microsoft Windows Server 2016 instead of installing software manually

Can simplifying deployment make a big impact?

The sooner servers are up and running in your datacenter, the sooner they can fulfill their role and contribute to your organization's success. Consider servers that run enterprise applications: server deployment can be part of the application development process. Once application developers and IT decision-makers decide on the right configuration, it's the responsibility of the IT admins to properly deploy the servers to give developers the resources they need. Choosing a Dell EMC PowerEdge server with pre-installed Microsoft Windows Server 2016 can allow IT admins to finish their part in this process quickly so application developers can get to work.

Here's a fictional example: Two companies in the healthcare industry have given their software developer teams the green light to start the development stage of new customer-facing applications. The first company, a health technology company, chose a Dell EMC PowerEdge R740 server with pre-installed Windows Server 2016 for that first phase of development. It's up to IT admin Alexandria to get the server up and running.

Decision-makers at the second company, which develops pharmaceutical drugs, chose a Dell EMC PowerEdge R740 server without the pre-installed software. IT admin Farid feels confident that he can quickly get the new server ready for developers. Let's see how each hypothetical deployment goes.



The benefits of pre-installed Microsoft OEM software

In addition to freeing time for IT staff and enabling faster IT infrastructure and services delivery, deploying Dell EMC servers with pre-installed Microsoft OEM software offers several benefits on individual and business levels:

- **Greater consistency, less error:** Fewer steps means fewer opportunities to introduce human error
- **Targeted licensing costs:** Purchase only what you need for your environment instead of large and complex volume agreements
- **Consolidated support:** With the purchase of Dell EMC ProSupport or a higher level of support, Dell EMC serves as a single point of contact for your OEM software and hardware needs including: license validation, configuration and re-installation, how-to and best practices, remote assistance, remote deployment of patches and updates, and software issue identification and escalation

Reduce hands-on IT time and improve a server's time to value

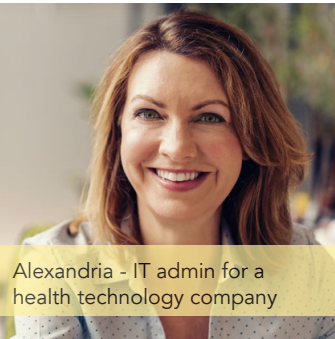
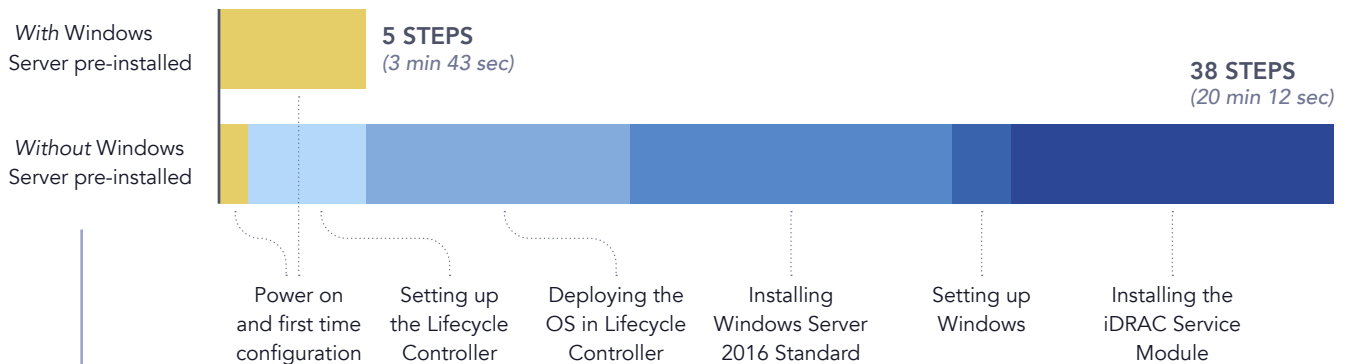
Once the servers arrive, it's off to the races. Alexandria deploys the server with pre-installed Microsoft OEM software in just over three minutes, easily squeezing in the task before checking the backups and event logs from the previous day. Farid thinks he can complete the deployment in a fifteen-minute chunk before a team meeting, but he will end up being a few minutes late as it will take just over 20 minutes to deploy the PowerEdge R740 manually. For Alexandria, that's a savings of over 16 minutes of hands-on labor—an 82 percent reduction in deployment time simply because her employer chose to have the necessary Microsoft software installed by Dell EMC before the server arrived. In addition, Dell EMC installed

up-to-date drivers to match the OS version on the PowerEdge R740 with pre-installed OEM software. This saves Alexandria time and effort, too, and allows her to do more in her day. The chart below breaks down the times and steps for each deployment.

When Farid's employer, the pharmaceutical drug company, wants to deploy more than one server, he'll end up spending even more time without the pre-installed Windows OEM software—there's potential for Alexandria to save even more time compared to the time Farid would have to spend.

We used Lifecycle Controller with our volume Windows Server 2016 license to deploy the OS. Lifecycle Controller has benefits such as firmware updates, hardware inventory management, diagnostic tools, and more. Even with your OEM setup, you would only need an additional 48 seconds to set up Lifecycle Controller for future use.

Steps to deploy (lower is better)



Alexandria - IT admin for a health technology company



Farid - IT admin for a pharmaceutical company

Lessen the burden on IT admins

Saving time is great, but so is saving manual effort. Alexandria saves 33 steps by having the pre-installed OEM software from Dell EMC and Microsoft. She needs to complete only five steps to set up the Dell EMC PowerEdge R740 with pre-installed Microsoft OEM software and up-to-date Dell EMC drivers. Having the necessary software and drivers pre-installed and updated upon arrival reduces the number of steps Alexandria needs to update the software components.

In contrast, it takes Farid 38 steps to set up the single Dell EMC PowerEdge R740 manually. Most of those steps come from updating drivers and firmware as recommended by Dell EMC, Microsoft, and other hardware manufacturers for ideal stability and performance. The chart above breaks down the steps.

It's again important to note that when Farid's employer, the pharmaceutical company, wants to deploy multiple servers, he'll have to complete even more steps because he won't have the assistance of the pre-installed software.

Help reduce the company's bottom line

Saving money when possible is important for any business. With pre-installed OEM software, Alexandria's employer avoids additional licensing fees. The pharmaceutical company Farid works for, however, pays an estimated \$882 in licensing costs to install Windows Server 2016 for the Dell EMC server without pre-installed software.¹

After we compared the total cost of both solutions,^{2,3} we found that purchasing the Dell EMC PowerEdge R740 with pre-installed Microsoft OEM software can save up to \$222 per server. That's 25 percent of the licensing cost necessary to create the same software environment. The chart below breaks down the costs in USD. Your licensing cost will depend on your choice of software and version, so savings can vary.

	Without pre-installed OEM software and using Lifecycle Controller	With pre-installed OEM software*	Savings
Licensing cost	\$882.00	\$659.80	\$222.20

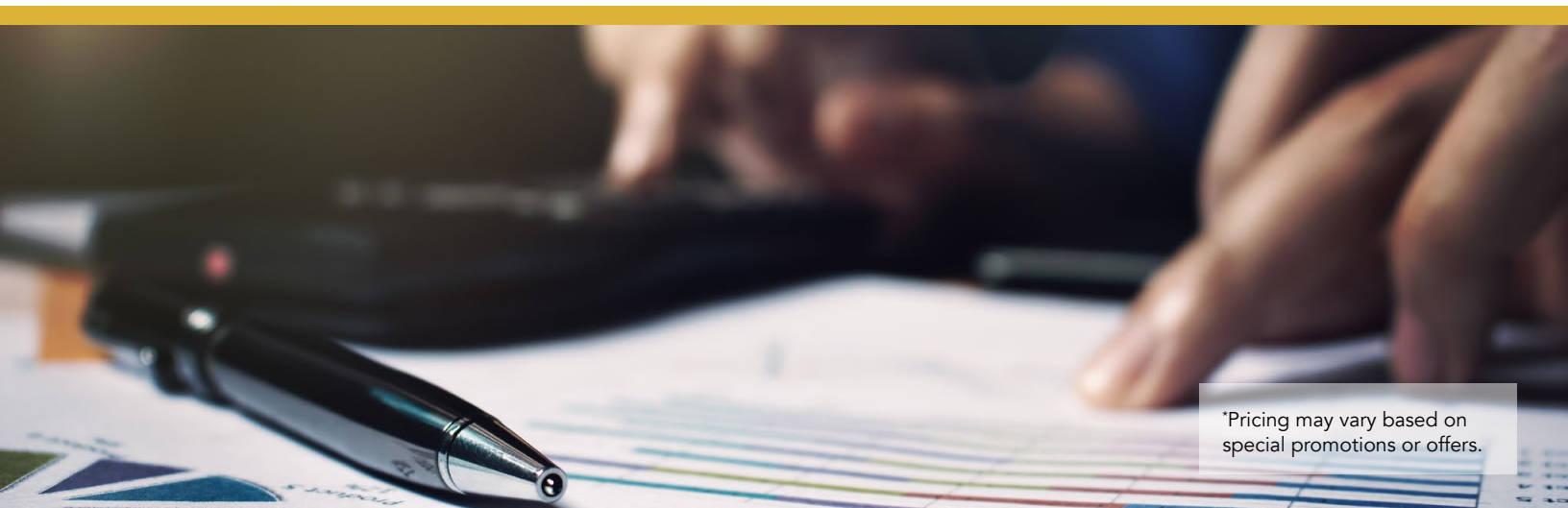
Saving time and effort at scale

If Farid needs to deploy multiple servers, doing the job manually can involve many steps and many hours. Deploying 10 servers, for example, would require 380 manual steps taking up 3 hours and 22 minutes of Farid's day. Adding a second IT staff member to the job could help him finish the task sooner, but this would make inconsistencies between deployments more likely—and, naturally, require the same number of admin hours anyway.

By having Microsoft OEM software pre-installed on each of the servers when they arrive, Alexandria can assure the health technology company that each server has the same settings and updates necessary for the new customer-facing application instances.

Using our results, the table below compares times for a 10-, 50-, and 100-server deployment with both solutions. All times are in minutes, seconds, and tenths and hundredths of a second.

Scaled out	Without pre-installed OEM software and using Lifecycle Controller		With pre-installed OEM software		Savings	
	Time	Steps	Time	Steps	Time	Steps
10 servers	3:22.04	380	0:37.10	50	2:44.54	330
50 servers	16:50.21	1,900	3:05.50	250	13:44.30	1,650
100 servers	33:40.41	3,800	6:11.40	500	27:29.01	3,300



*Pricing may vary based on special promotions or offers.



Conclusion

Saving IT deployment time has a number of benefits, including reducing setup hassle and complexities, freeing administrator time, and reducing costs. By choosing Dell EMC PowerEdge servers with pre-installed OEM software, specifically Microsoft Windows Server 2016, you're saving time and effort compared to buying servers without the software. You could save roughly 17 minutes during deployment by purchasing the server with pre-installed software. Deploying more servers can save time too, as our findings show the time savings can scale up while meeting large-scale IT resource needs of your business. What's more, choosing the Dell EMC server with pre-installed software can save you from spending 25 percent of additional licensing costs per server.

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- 1 "Pricing and licensing for Windows Server 2016," accessed July 25, 2018, https://www.dell.com/en-us/work/shop/cty/pdp/spd/poweredge-r740/pe_r740_12248_b
 - 2 A representative from Dell EMC provided the Windows Server 2016 Standard licensing cost for the server with the pre-installed OEM software.
 - 3 Licensing cost for pre-installed software will depend on your choice of software edition and processor, so savings can vary.

Read the science behind this report at <http://facts.pt/vkd57j> ►



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This project was commissioned by Dell EMC.