



# Beat The Clock

As Microsoft Windows Server 2008 reaches EOS, be ready to update and modernize your IT infrastructure with new server hardware.



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Windows Server



## Introduction

With the impending End of Service (EOS) for three Microsoft Windows Server 2008 R2 editions coming up in January 2020, companies need to consider the most streamlined and effective solution for updating to a modern OS, such as Microsoft Windows Server 2016 or Windows Server 2019.

These organizations must decide whether to attempt installing this new OS on their existing servers, build new servers to support the upgrade, or purchase new hardware from an OEM vendor to ensure the best results for the updated OS.

In this eBook, we'll look at the different considerations IT decision makers face in making the upgrade to Microsoft Windows Server 2019, and how to decide which option is best for their organization.



**Servers are not being replaced quickly enough to keep up with new software. What percentage of companies are waiting even longer than 4 years to switch out their servers?**

**Answer. 51%**

Forrester Consulting determined that 51% of companies wait even longer than four years to replace aging servers. On average, 40% of servers deployed in an organization is more than three years old.<sup>1</sup>



## CHAPTER 1:

# Time is running out

The clock is ticking. On January 14, 2020, three Windows Server 2008 R2 editions will reach EOS and no longer be supported.

Microsoft follows a protocol where a product's support lasts for five years after its General Availability date. After those five years, it goes to fee-based Extended Support for an additional five years with security updates only.



EOS for the Windows Server 2008 R2 editions is consequential for a number of reasons. While the Windows Server 2008 R2 editions won't suddenly stop functioning, if any issues occur, there will no longer be a readily available, manufacturer-supported fix. Even more problematic, IT departments will no longer receive patches or security updates, leaving organizations vulnerable to malicious attacks by those trying to steal or destroy data. Hackers always look for points of weakness, and hardware and software that lack the latest security components are prime targets for these bad actors.

In addition, every new application is optimized to run on the latest OS. If you're using an OS that's reached EOS, it becomes increasingly challenging to deploy and upgrade the latest, most beneficial applications. Instead, you'll need to rely on legacy applications which become less effective every day.



“End of support means the end of regular security updates. With cyberattacks becoming more sophisticated and frequent, running apps and data on unsupported versions can create significant security and compliance risks. The 2008 family of products was great for its time, but we highly recommend upgrading to the most current versions for better performance, efficiency, and regular security updates.”

–Takeshi Numoto, Microsoft Corporate VP Cloud + Enterprise<sup>2</sup>

Running an updated OS on legacy hardware can also lead to other costly problems. In many cases, older servers can't run the latest OS. And even if your legacy servers can run a new OS, odds are they will not perform as proficiently and effectively as intended. New server hardware can make every aspect of updating your OS faster, easier and more effective. With Modernized IT, you'll also be better prepared to manage your on-prem and hybrid capabilities that can support your business today, and into the future.

These are just a few of the reasons you need to seriously consider the benefits of updating your server hardware when you update your server software to Microsoft Windows Server 2019.

### Current server environment

According to forecasts, 2/3 of next year's server purchases will be used to support emerging technology workloads, including predictive analytics, edge computing and IoT.<sup>3</sup>





## CHAPTER 2:

# Why go with an OEM server?

In order to ensure your organization can take full advantage of all the upgrades and enhancements that Microsoft Windows Server 2019 has to offer, you need to understand the importance of updating your server hardware in conjunction with your new OS.

Whether you choose to build your own server or purchase from an OEM, there are tradeoffs to either decision. Building enables you to meet your exact server specifications, but it can also be a costly and time-consuming exercise. The number one reason for going with an OEM is cost.

Simply stated, you can generally purchase an OEM server for less money than it would cost to build. But that's just the initial differentiator.

## Three industries stood out in their higher than average uses of Windows 2008 servers:<sup>4</sup>

1



Financial/Legal

2



Government

3



Healthcare

By purchasing from an OEM, you'll also reap the benefits of having the OS factory installed, as well as tested and validated, all before it arrives at your door. Not to mention other valued features, such as bundled software, warranties, and support from a brand-name manufacturer. As the server industry continues to evolve, OEM systems keep getting more flexible, more affordable, and more easily accessible.

The only way to truly realize the multiple benefits of Microsoft Windows Server 2019 is to ensure your server hardware environment is modernized to fully support all of the software features, including security enhancements, scalability, and cloud-readiness.

## Consider how new OEM hardware can deliver the following benefits to your business:

### Reduced costs



Most OEM providers offer bundled licensing costs, so you purchase only what you need. In addition, using the latest hardware and software together inevitably leads to savings through productivity.

### Improved security



New OEM servers can enhance the security of your organization by utilizing the latest tools for detecting threats, protecting data, and taking proactive measures to safeguard your company's most critical information and applications.

### Increased workloads



Organizations using new OEM servers to upgrade their OS can increase workloads to optimize operations, drive sales, and prepare for future growth with enhanced performance and increased storage availability.

### Better infrastructure agility



A new OEM server can play a crucial role in accelerating business agility with applications built to run on Microsoft Windows Server 2016. By expanding and enhancing its virtualization, networking, storage, and management features, Microsoft Windows Server 2016 integrated with new hardware enables organizations to easily support the needs of multiple business units.

## Improved customer experience



New OEM hardware can also improve the performance and cost efficiency of existing systems. This helps organizations optimize management, increase speed of deployment, and improve agility. As a result, IT staff are equipped to respond more quickly and effectively to the needs of employees, customers, and partners.

In choosing the best server platform to run Microsoft Windows Server 2019, IT decision makers need to consider which OEM hardware can help them modernize their IT in order to maximize virtualization, cloud migration features, and overall functionality. OEM hardware also provides excellent platform performance with faster processors than previous generations of legacy hardware.

When integrated into new OEM hardware, new OS software, such as Microsoft Windows Server 2019, can employ and benefit from new features such as Windows Defender, PowerShell 5.0, and Windows Containers to improve security, management, and scalability for any sized enterprise.

## Saving time and effort at scale

Deploying servers can require considerable time and effort with hundreds of manual steps. By having Microsoft OEM software pre-installed, deployment is dramatically simplified and shortened.<sup>5</sup>

### With 50 servers

	Time	Steps	Licensing Cost*
Without pre-installed OEM software and using Lifecycle Controller	16:50.21	1,900	\$44,100
With pre-installed OEM software	3:05.50	250	\$32,990
<b>Savings</b>	<b>13:44.30</b>	<b>1,650</b>	<b>\$11,110</b>

\*Cost of OEM standard licensing can vary.



### CHAPTER 3:

## Know what you need to succeed

For organizations that rely on technology, servers are essential to the success of the business. When confronting an issue as critical as an OS update, the selection of precisely which new servers to purchase is extremely consequential to IT decision makers and the organization at large.

### **The right choice of server can Modernize your IT and provide years of benefits, including:**



**Strong performance**



**Solid reliability**



**Easy scalability**

But the wrong choice can cause lasting damage, from impairing productivity to creating problems for IT staff, ultimately proving to be an unwise investment for the organization. New servers can also help modernize the data center by consolidating resources and utilizing the latest applications and updates you need to be more competitive today, and into the future.

Because new servers can streamline and centralize management, they not only increase productivity, but also make it easier to track application usage to better control licensing costs and avoid expensive software audits. This ultimately helps the organization to reduce costs.



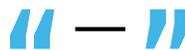
## **New servers that are better equipped to protect data will help organizations to prevent?**

**Answer: Costly fines, Damaged reputations, and Loss of business**

Utilizing new servers is the best way to ensure your company stays compliant, serve your customers and keep your hard-earned reputation intact.

Lastly, before deciding on which new server hardware to purchase, it's important to know exactly what you're looking for, not just in terms of performance and reliability, but also in terms of the vendor's reputation for quality products, exceptional service, and guaranteed support.

Selecting a server that helps you achieve the goals above is a solid start toward making the right server hardware choice for your organization.



**“[I use] forums where we can discuss problems and everything else under the sun. That’s where we find a lot of our mission-critical [information]—we want to know what’s going on, what people actually use it for, get a non-generalized [idea] of how this server compares to that server, and how that server works with this software, etc.”**

—IT pro<sup>6</sup>

## Do your research

IT pros turn to a variety of resources to gather information before migrating or purchasing. Some of the most important sources of information include:

### Testimonials



Unbiased feedback regarding fellow IT pros' experience with migration as well as challenges and solutions

### IT forums/message boards



A variety of real-world feedback and advice from both IT pros and vendors all in one place (i.e. Spiceworks and server vendors are frequently visited)

### Conferences/meetups

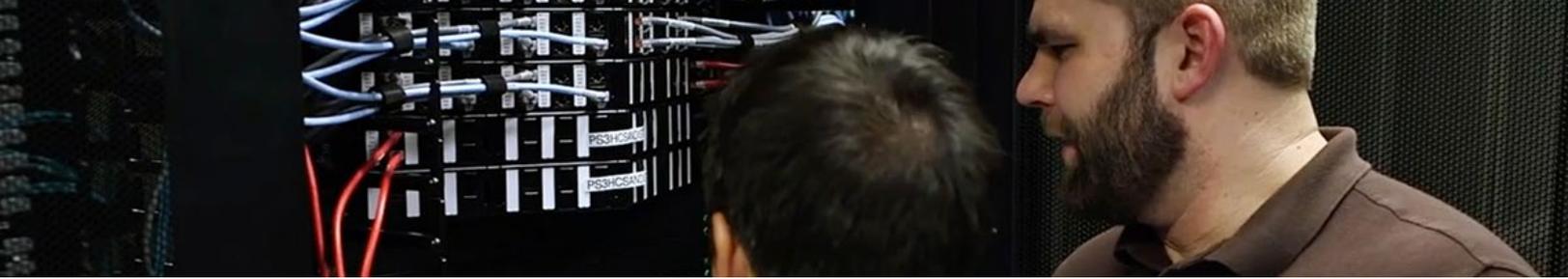


Networking and professional development amongst IT pros and vendors with the opportunity to ask specific questions about the solutions they are considering implementing

### Demo



Test data or remote access to prove the concept and decide if the solution is the right fit



## CHAPTER 4:

# Make the smart choice

Once you've done your homework, you should be prepared to make the best server hardware selection for your organization. While there are a lot of good options available, it's important to consider which OEM to choose, and why. The best choice will be servers from a company that has a well-earned reputation for quality products, leading-edge technology, and warranties and support that you can count on from day one.

Dell EMC PowerEdge 14th generation servers with pre-installed Microsoft Windows Server 2019 will modernize your IT to give your organization faster performance in both processing speeds and network communications. They also include the latest enhancements to ensure hassle-free deployment and end-to-end security for a smooth and safe upgrade.



Dell EMC PowerEdge servers offer a number of benefits from saving time for administrators to reducing costs. By choosing Dell EMC PowerEdge servers with pre-installed modern OS, IT staff can save roughly 17 minutes during deployment.<sup>7</sup> Adding more servers can save additional time, enabling you to scale up quickly when needed. Even more impressive, selecting these servers with pre-installed software can save you from spending 25% in additional licensing costs per server.<sup>8</sup>

With Dell EMC PowerEdge servers, you'll also realize the benefits of a scalable business architecture, intelligent automation and efficiency, and integrated security solutions to protect your (and your customers') most critical data. Perhaps most important, Dell EMC is valued as a trusted partner by IT pros and decision makers worldwide who know that they can count on Dell EMC products, services and people to business running and customers happy.

## Reap the benefits

Dell EMC PowerEdge servers with pre-installed modern OS enable you to:

### Serve more customers



Dell EMC PowerEdge R740xd running Microsoft Server 2016 with SQL 2017 standard edition performed **up to 6.7 times** as many orders per minute as an R720xd running Microsoft Server 2012 R2 with SQL 2008 R2<sup>9</sup>

### Reduce customer wait times



Dell EMC PowerEdge R740xd running Microsoft Server 2016 with SQL 2017 standard edition improved application latency **by up to 88%** compared to an R720xd running Microsoft Server 2012 R2 with SQL 2008 R2<sup>10</sup>

### Lower the cost of system deployment



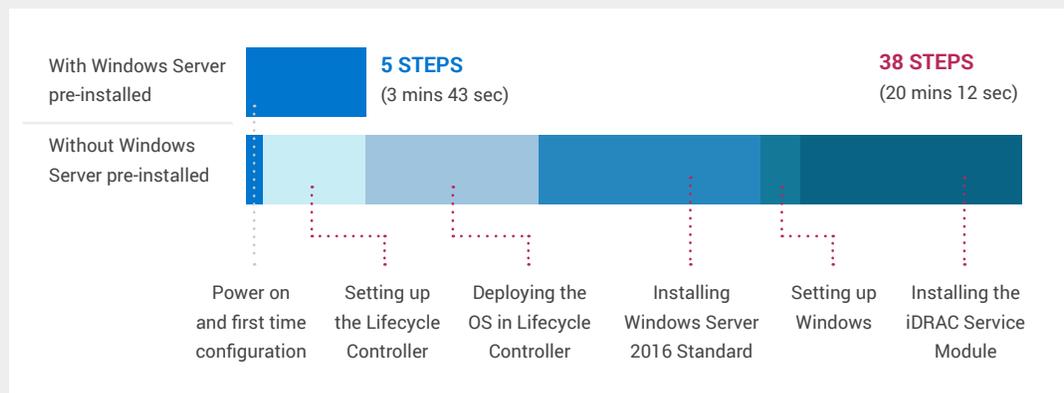
Server deployment is faster, easier, and less expensive when Microsoft Windows Server 2016 Standard Edition is purchased as a pre-installed option on Dell EMC PowerEdge servers<sup>11</sup>

IT decision makers choose to update their hardware for many reasons, but productivity and security are usually among the top. The good news is that modernizing with Dell EMC and Microsoft can help organizations increase productivity and security with an infrastructure that's ready to grow with your business.

Organizations that still need an on-premise solution can rest assured, as Dell EMC PowerEdge 14th generation servers with pre-installed Microsoft Windows Server 2019 use cloud-ready technologies, so you can move to the cloud on your own terms and timeline.

## Reduce the steps to success

IT pros with Windows Server pre-installed deployed a server in 82% less time than those without.<sup>12</sup>



# Conclusion

Preparing for your business's future means keeping your data center hardware and software up to date. In fact, Forrester reports that 47% of ITDMs credit their implementation of modern servers in driving higher systems reliability, 40% cited improved application performance, and 36% said they experienced improved customer experience.<sup>13</sup>



## Updated servers reduced the amount of time spend on troubleshooting by how much?

**Answer: 31%**

Respondents reported an average reduction time of 31% when troubleshooting with modern servers, and 28% less time spent on deployments.<sup>14</sup>

## Final Checklist

**Before choosing any new Dell EMC PowerEdge server, be sure to ask these questions:**

- What apps are you using now, or plan to use?
- Are your storage needs increasing?
- How much are you planning to leverage the cloud?

**Understanding exactly what your organization needs will ensure you make the right selection.**

By modernizing your infrastructure and moving to the latest Dell EMC PowerEdge servers, you'll benefit from new performance-enhancing features, improved security, and having a cloud-ready environment. And Dell EMC will be there by your side every step of the way to make sure your deployment is a success. From being your single point of contact (POC) vendor to providing simple, cost-effective bundled licensing agreements, Dell EMC can be your one stop shop for any and all of your server hardware needs.

Find the perfect server to Modernize your IT and take your business to the next level and beyond, with Dell EMC.



Learn more about Dell PowerEdge Servers

**DELLEMC** |  Microsoft Windows Server

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