**PROWESS**

# AI-Ready Efficiency and TCO Savings

Research from Prowess Consulting shows that you can modernize server infrastructures with Dell™ PowerEdge™ servers featuring 5th Generation AMD EPYC™ processors to achieve high efficiency, scalability, and security.

# Executive Summary

AI is transforming IT, demanding more from infrastructure—and IT budgets—every day. Prowess Consulting's research demonstrates that the latest Dell™ PowerEdge™ servers, powered by 5th Generation AMD EPYC™ processors, deliver the efficiency, performance, and cost optimization enterprises need to develop, train, run, and analyze AI workloads while driving long-term value and enabling innovation.

## Cost-Savings, Efficiency, and Long-Term Value in Modern IT

Increasing workload density and improving core efficiency with the latest generation of PowerEdge servers, powered by 5th Gen AMD EPYC processors, enables organizations to reduce licensing and hardware expenses while maintaining or improving application responsiveness.

Modernization with PowerEdge servers also drives significant energy and space savings. These savings can come in the form of both server consolidation and improved performance per watt.[3] For example, refreshing five-year-old servers to current-generation PowerEdge servers can provide a 7:1 consolidation ratio and can use 136 fewer cores for comparable performance, which can represent a 42% cost reduction for VMware licensing.[1]

Beyond cost optimization, PowerEdge servers are engineered with sustainability and future-proofing in mind. Advanced cooling technologies and certifications like the Global Energy Council's Electronic Product Environmental Assessment Tool (EPEAT®) Silver ensure energy-efficient performance aligned with environmental, social, and governance (ESG) goals. Support for emerging technologies like Compute Express Link® (CXL®) 2.0 prepares enterprises for next-generation workloads, extending the lifecycle of IT investments and enabling innovation while keeping operational costs in check.

## Performance and Flexibility to Scale for Larger Workloads

Our research, commissioned by Dell Technologies, found that these servers can yield exceptional performance gains, with single-socket configurations delivering up to 39% better performance than competing servers,[4] and dual-socket setups outperforming them by as much as 47%.[2] These results, backed by SPEC CPU® 2017 benchmarks, highlight the ability of PowerEdge servers to host strategic workloads, from AI to enterprise virtualization, with high speed and responsiveness.

Technological advancements like PCIe® 5.0 connectivity and DDR5 memory at speeds of up to 6,400 megatransfers per second (MT/s) enhance data handling and throughput, supporting GPU acceleration and high-speed networking demands. With up to 192 cores in dual-socket configurations and a 17% instructions-per-cycle (IPC) uplift,[5] PowerEdge servers featuring 5th Gen AMD EPYC processors deliver both processing density and single-threaded efficiency. Record-setting benchmarks in Chaos® V-Ray® rendering and SAP® Sales and Distribution further underscore these servers' technical leadership in powering complex, resource-intensive environments.[6]
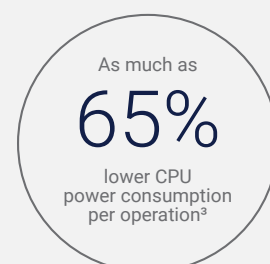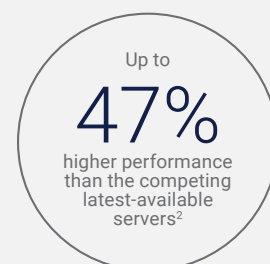
## AI Performance at All Stages of Adoption

With world-record performance in the TPCx-AI benchmark,[7] PowerEdge platforms deliver the reliability, scalability, and efficiency enterprises need to seamlessly manage both entry-level and large-scale AI initiatives.

For smaller or targeted workloads, such as computer vision and data preparation, CPU-based solutions like the PowerEdge R6715 server offer cost-effective entry points with exceptional memory and storage performance. The PowerEdge R6725 server gets you even more cores in the same footprint.

For larger workloads and AI model training, the PowerEdge R7725 server supports two double-wide GPUs, and the PowerEdge R7715 server supports three double-wide GPUs. Benchmarks like SPECstorage® AI_IMAGE and workloads such as genomics demonstrate industry-leading response times, highlighting Dell Technologies solutions' ability to eliminate bottlenecks and optimize data preprocessing for AI and other high-performance workloads.

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Latest-generation Dell™ PowerEdge™ servers, powered by 5th Generation AMD EPYC™ processors, deliver:

Up to a
**7:1**
consolidation ratio replacing legacy servers running virtualized workloads[1]

More than
**42%**
reduced per-core licensing costs compared to legacy servers in a 7:1 consolidation[1]

Up to
**47%**
higher performance than the competing latest-available servers[2]

As much as
**65%**
lower CPU power consumption per operation[3]

## How We Conducted the Study

Because of the ubiquity of Dell Technologies solutions in data centers and market leadership, this study draws on existing data to evaluate the benefits of deploying PowerEdge servers, specifically the latest-generation platforms powered by 5th Gen AMD EPYC processors. This study measures improvements in three key areas:

- **Cost optimization:** Addressing virtualization licensing challenges by improving core efficiency and workload density.
- **Efficiency:** Enabling enterprises to consolidate workloads, reduce power usage, and reclaim valuable data center space.
- **Performance:** Delivering higher compute power and throughput for critical workloads, including AI inference and training tasks.

Beyond these metrics, this report also examines some of the advanced tools to support critical workloads, scale efficiently, and strengthen infrastructure security provided by latest-generation PowerEdge platforms, powered by 5th Gen AMD EPYC processors.

## Maximizing Value: Cost Savings, Efficiency, and Sustainability

As data centers evolve, licensing models are shifting. Virtualization remains a cornerstone of IT operations, but licensing costs—often based on core counts or server footprints—can escalate quickly without careful planning. The latest-generation PowerEdge servers, powered by 5th Gen AMD EPYC processors, can help enterprises navigate these changes by increasing workload density, improving core efficiency, and optimizing resource utilization. At the same time, these servers deliver measurable improvements in energy efficiency, improved cooling capabilities, and future-proof capabilities, all of which provide a clear path to greater value.

### Reducing Costs with More Efficient Licensing

One major factor driving licensing discussions is the updated licensing model for VMware® solutions. Under this model, licensing costs scale directly with core counts, creating financial pressures for enterprises running workloads on older servers with lower per-core performance.

By deploying servers with significantly more cores and greater performance per core,[8] enterprises can consolidate workloads onto fewer physical servers. To cite a specific example, refreshing five-year-old servers to current-generation PowerEdge servers not only provides a 7:1 consolidation ratio but also uses fewer cores for comparable performance, which can represent a 42% cost reduction for VMware licensing.[1]

> More than **42%** reduced **VMware licensing costs compared to legacy servers** in a **7:1 consolidation**[1]

Beyond VMware solutions, many organizations rely on alternative hypervisors like Microsoft® Hyper-V® or container platforms like Red Hat® OpenShift®. These platforms can also benefit from PowerEdge servers' increased compute density and efficiency, which can similary consolidate virtualized workloads running on those hypervisors.

For IT teams managing mixed environments, modernizing with the latest-generation PowerEdge servers and AMD EPYC processors can simplify licensing strategies, balancing cost and performance across virtual machines (VMs), containers, and traditional workloads.

### Cost, Power, and Space Optimization Through Consolidation

In practical terms, fewer servers mean reduced power consumption, simplified management, and lower total cost of ownership (TCO).

Power efficiency is critical to controlling operational expenses and reducing environmental impact. Latest-generation PowerEdge servers offer impressive metrics for consolidation and energy savings, including up to:

- **65% lower CPU power consumption per operation:** Newer platforms deliver the same performance using significantly less energy.[3]
- **85% space savings:** Smaller, more efficient configurations reclaim valuable rack and floor space.[9]

The energy efficiency of these platforms is validated by PowerEdge servers' world-record-setting performance in the SPECpower_ssj® 2008 benchmark, achieving an industry-leading 27,398 ssj_ops/W.[10] This score demonstrates the PowerEdge servers' ability to maximize workload density while minimizing power consumption. Complementing this is the introduction of Titanium power supplies, which deliver peak power efficiency, ensuring that resources are utilized effectively.

> PowerEdge servers' world-record-setting performance:
> **27,398 ssj_ops/W**
> in the SPECpower_ssj® 2008 benchmark.[10]

### Repurposing Resources for AI and Innovation

Modernized platforms not only reduce energy and space usage but also free up resources that can be reinvested into higher-value workloads:

- **Power and space for AI workloads:** By consolidating older systems, enterprises can redirect saved energy and space toward new, resource-intensive applications like AI inference and training.
- **Scaling AI without significant costs:** Businesses can scale AI infrastructure incrementally, leveraging the modularity of PowerEdge servers to minimize upfront investment while maintaining flexibility.
- **Maximizing return on investment (ROI) with reinvestments:** The operational savings generated through power and space efficiency enable IT teams to allocate budgets toward innovation, whether in AI, machine learning (ML), or other emerging technologies.

### Driving Energy Efficiency and Cost Savings

Improving energy efficiency is a win-win. It reduces carbon emissions while delivering long-term cost savings. By modernizing infrastructures with PowerEdge servers, organizations can consolidate outdated hardware and dramatically reduce power consumption.

Running high-density workloads or AI applications demands innovative thermal and power-management solutions. PowerEdge platforms address these challenges with features that ensure optimal performance in even the most demanding environments:

> Efficient processors, advanced thermal management and higher workload density cut energy costs and cooling requirements.

- **Enhanced heat sinks and high-efficiency fans:** Improve airflow and cooling, reducing energy consumption across the data center.
- **Cooling innovations:** Advanced thermal-management technologies like Multi-Vector Cooling (MVC) 2.0 and Smart Flow optimize airflow and reduce energy consumption. These systems ensure servers operate efficiently, even in dense configurations with 50% more cores and dual–500 W CPUs, without sacrificing cooling performance.
- **Direct liquid cooling:** A cutting-edge cooling solution designed for the most power-intensive configurations, delivering high thermal efficiency.

These features collectively reduce heat buildup, improve system longevity, and support greater workload density without compromising on efficiency.

Moreover, Dell Technologies' EPEAT Silver certification validates the ability of PowerEdge servers to deliver on these advanced power and cooling technologies. This certification underscores the Dell Technologies commitment to energy-efficient, sustainable hardware, which aligns with many enterprises' ESG goals.

# Increasing Performance for Modern Data Centers

Server performance matters more than ever in modern data centers. Performant servers open the door to supporting critical new workloads like AI. They also enable IT organizations to do more with less.

Investigation by Prowess Consulting showed that the latest-generation PowerEdge servers powered by 5th Gen AMD EPYC processors provide greater performance than both previous-generation PowerEdge servers and servers from other OEMs running competing processors.

To assess this, Prowess Consulting analyzed published SPECrate® 2017 Floating Point benchmark results. This benchmark provides a broad set of data concerning multithreaded throughput for server workloads involving floating-point arithmetic (that is, precisely those workloads most important in modern data centers).

Among single-socket servers, the PowerEdge R6715 server powered by an AMD EPYC 9575F processor (64 cores, 400 W default thermal design power [TDP]) was up to 28% more performant than a previous-generation PowerEdge R7615 server powered by an AMD EPYC 9554 processor (64 cores, 360 W default TDP).[11]

When matched against a comparable server powered by a single Intel® Xeon® Platinum 8592+ processor (64 cores, 350 W default TDP), the PowerEdge R6715 server boasted up to 39% higher performance.[4]

For two-socket servers, the PowerEdge R6725 server powered by two AMD EPYC 9575F processors had up to 43% higher performance than a PowerEdge R7625 server powered by two AMD EPYC 9554 processors.[12] And compared to a server powered by two Intel Xeon Platinum 8592+ processors, the PowerEdge R6725 server showed up to 47% higher performance.[2]

- Up to **28% higher** performance than previous-generation, single-socket servers.[11]
- Up to **43% higher** performance than previous-generation, two-socket servers.[12]
- Up to **39% higher** performance than competing latest-available, two-socket servers.[4]
- Up to **47% higher** performance than competing latest-available, two-socket servers.[2]

## Performance to Support AI and Other Strategic Workloads

Interoperability ensures that enterprises can scale their AI workloads efficiently, leveraging existing infrastructure while introducing upgraded technology. PowerEdge servers are designed to work seamlessly alongside other servers in the data center, including GPU-optimized systems that support larger, more demanding AI applications. This design feature, in turn, further enhances adaptability by allowing organizations to configure their servers for a mix of AI and non-AI workloads, and enabling them to scale resources dynamically.

The inclusion of PCIe 5.0 support ensures that PowerEdge platforms are ready for the high-speed connectivity needed to support GPU acceleration. All PCIe ports on latest-generation PowerEdge servers are now Gen 5, which can support a throughput of approximately 32 gigabits per second (Gbps). Multiplied by the 16 lanes typical for PCIe slot configurations, this results in a total throughput of around 512 Gbps. This high throughput allows for significant improvements in networking capabilities.

For example, a dual-port 200 gigabit network card can be fully supported by a single PCIe 5.0 slot, providing up to 400 Gbps of networking throughput. In comparison, PCIe 4.0 slots would max out at 256 Gbps—just greater than half the throughput—for the same configuration, making PCIe 5.0 a substantial upgrade in terms of data-transfer capabilities.

## Technological Improvements Driving Performance

With support for up to 192 cores in dual-socket configurations, PowerEdge servers featuring 5th Gen AMD EPYC processors offer exceptional processing density, allowing enterprises to handle large-scale workloads without expanding hardware footprints. At the same time, the inclusion of DDR5 memory at speeds of up to 6,400 MT/s ensures that the increased core count is matched by fast data handling. These improvements deliver smooth performance for data-heavy applications, from virtualized environments to AI data preparation.

5th Gen AMD EPYC processors also provide a 17% IPC uplift compared to the previous generation.[5] This gain means greater efficiency per core, making workloads faster and more responsive—whether those workloads are AI model inferencing, database management, or enterprise virtualization. By combining more cores with better single-threaded performance, these servers deliver meaningful improvements for real-world tasks.

The performance leadership of latest-generation PowerEdge servers is not theoretical—it's proven through record-setting benchmarks:

- In the Chaos V-Ray 6 Benchmark, these platforms delivered a result of 376,758 vsamples,[6] showcasing their ability to excel in rendering-intensive workloads like visual design and content creation.
- For enterprise applications, PowerEdge servers also achieved the best SAP Sales and Distribution score, supporting up to 201,000 benchmark users.[13] These achievements reinforce the ability of PowerEdge servers to handle complex, resource-intensive environments with ease.

# Enabling AI Performance and Readiness for Every Stage of the Pipeline

For organizations starting small or managing targeted AI workloads, CPU-based solutions like the latest-generation PowerEdge servers provide a cost-effective entry point. With exceptional memory and storage performance, these servers are engineered to meet the demands of AI workloads such as computer vision, vector databases for retrieval-augmented generation (RAG), and data preparation. For instance, a latest-generation PowerEdge server demonstrated an overall response time of just 0.26 milliseconds in the SPECstorage benchmark's AI_IMAGE workload—earning the second-fastest result on record.[14]

AI readiness begins with effective data preparation, an area where PowerEdge platforms excel. Handling data-intensive tasks like database management, data scrubbing, and preprocessing of large-scale tabular datasets, these servers ensure a smooth pipeline for AI initiatives. For example, a latest-generation PowerEdge server achieved another standout result with a 0.09-milliseconds overall response time in the SPECstorage genomics workload,[15] demonstrating its ability to eliminate bottlenecks and improve efficiency in the critical preprocessing stages of AI.

- **0.26 ms** response time for a SPECstorage® AI_IMAGE workload.[14]
- **0.09 ms** response time for a SPECstorage genomics workload.[15]
- AIUCpm@SF10: **864.53** score for a TPCx-AI benchmark.[7]

Complementing these performance benchmarks is Dell Technologies' proven leadership in AI optimization, as showcased in the TPCx-AI benchmark. The PowerEdge platforms achieved a record best AIUCpm@SF10: 864.53,[7] underscoring their ability to maximize throughput for both AI data preparation and analytics.

Whether enabling scalable entry-level AI or supporting enterprise-grade data preparation, PowerEdge servers deliver the reliability, efficiency, and scalability necessary to empower AI innovation.

# Advancing the Foundations of Modern IT

As enterprise workloads expand, server platforms must deliver performance, scalability, and security in equal measure. The latest-generation PowerEdge platforms powered by 5th Gen AMD EPYC processors provide the advanced tools enterprises need to support critical workloads, scale efficiently, and strengthen infrastructure security.

**Modular Designs Deliver Flexibility and Efficiency**

Open hardware encourages innovation by allowing multiple manufacturers to contribute to and adopt shared design principles. This fosters a broader marketplace of interoperable components, reducing costs, increasing flexibility, and enabling organizations to scale infrastructure more efficiently. The Dell Technologies Direct Connect Modular Hardware System (DC MHS) redefines platform design, balancing high-density configurations with the flexibility enterprises need to customize infrastructure for their specific goals. This modular approach simplifies platform customization, enabling businesses to deploy servers tailored for workloads like AI, virtualization, and high-performance computing (HPC) without unnecessary complexity.

PowerEdge servers also promote flexibility through Dell Technologies' embrace of the open hardware ecosystem. This technology ecosystem is a collaborative approach to hardware design that prioritizes interoperability, modularity, and open industry standards. Dell Technologies aligns to this approach with PowerEdge servers by using Open Compute Project (OCP) network interface controller (NIC) slots, replacing older LAN-on-motherboard (LOM) technology. This update enhances connectivity options, improves hardware standardization, and simplifies firmware management.

**Strengthening Security at the Core**

Modern IT environments face an increasingly sophisticated threat landscape, making security an essential element of infrastructure design. Dell Technologies and AMD integrate security features directly into the hardware to safeguard enterprise workloads from emerging risks.

With AMD EPYC processors, organizations gain critical protections like a hardware root of trust, which verifies the integrity of system firmware and hardware at boot. AMD Secure Memory Encryption (SME) ensures that data in memory remains encrypted and inaccessible to unauthorized processes, while advanced virtualization protections isolate VMs, preventing lateral movement of threats in multitenant environments.

Dell Technologies complements these features with its Integrated Dell™ Remote Access Controller (iDRAC) 10 platform, which offers centralized server-management tools that enable many of these features.

iDRAC 10 features a dedicated security enclave, reinforcing protections that align with zero-trust principles and the National Institute of Standards and Technology (NIST) Cybersecurity Framework. This framework, which guides organizations through identifying, protecting, detecting, responding to, and recovering from cyber threats, underpins PowerEdge security measures. An immutable hardware root-of-trust ensures secure boot verification, while digital signatures on firmware updates help maintain system integrity. Dell™ OpenManage™ Enterprise further strengthens defenses with real-time monitoring, security log analysis, and automated remediation, helping organizations proactively address and recover from threats.

By pairing AMD's hardware-level security with Dell Technologies tools, PowerEdge servers provide a unified approach to safeguarding workloads.

**Assessing Workloads with Dell™ Live Optics**
Transitioning to modern server infrastructure is a complex undertaking, but with the right insights and expert support, businesses can modernize efficiently and confidently. Dell Technologies provides solutions that help organizations evaluate, plan, and deploy server upgrades with minimal disruption.

The first step in any server transition is understanding your existing infrastructure. **Dell™ Live Optics** provides organizations with a clear, data-driven view of their current workloads. By analyzing performance, resource utilization, and capacity needs, Live Optics helps IT teams:

- Identify which workloads would benefit most from server modernization
- Plan for consolidation, ensuring optimized use of new servers
- Model energy and cost savings, providing a clear view of the business impact of upgrading

With Live Optics, IT decision-makers (ITDMs) can make informed choices based on real-world data, ensuring that server transitions align with organizational goals and workload requirements.

# Conclusion
Modernizing server infrastructure is no longer just about meeting today's demands; it's about preparing for tomorrow's opportunities. The latest-generation Dell PowerEdge servers powered by 5th Gen AMD EPYC processors provide enterprises with the performance, scalability, and efficiency needed to excel in AI-driven workloads, alongside virtualization and traditional data center demands.

This study highlights the ability of PowerEdge platforms to deliver industry-leading performance in AI-focused benchmarks, with remarkable response times for tasks such as data preparation. These capabilities ensure that enterprises can address the complete AI pipeline—from data scrubbing and model training to inference—with infrastructure optimized for speed, efficiency, and reliability.

As AI continues to reshape industries, organizations require infrastructure that not only accelerates workloads, but also aligns with broader sustainability and cost-efficiency goals. Dell Technologies solutions and AMD technologies together create a foundation for AI readiness, equipping businesses to innovate faster and scale seamlessly.

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**Streamlined Deployment with Dell ProSupport™**

Modernizing server infrastructure is about more than choosing the right hardware—it's about deploying that hardware efficiently. Dell ProSupport IT-management services help ensure a smooth, streamlined deployment process with expert assistance at every step. Whether transitioning a single workload or refreshing an entire data center, Dell ProSupport services provide:

- **Deployment guidance:** Expert assistance to integrate new servers with minimal disruption to operations.
- **Ongoing support:** 24/7 access to Dell Technologies experts, ensuring quick issue resolution and maximum uptime.
- **Optimization tools:** Insights to help IT teams get the most out of their infrastructures, from workload tuning to resource management.

With Dell ProSupport services, organizations can reduce deployment risks, accelerate implementation timelines, and maximize the benefits of their modernized infrastructures.

# Learn More

- Learn more about **Dell PowerEdge servers with 5th Gen AMD EPYC processors**.
- Discover other research reports by **Prowess Consulting**.

## Endnotes

1. Based on analysis by Prowess Consulting comparing the SPECrate® 2017 Floating Point scores of a Dell™ PowerEdge™ R7725 server with two AMD EPYC™ 9755 processors with a total of 256 cores (SPECrate score = 2,270) to a PowerEdge R740xd server with two Intel® Xeon® Platinum 8280 processors with a total of 56 cores (SPECrate score = 296). The ratio of the scores shows that seven PowerEdge R740xd servers would give a total score similar to that of the single PowerEdge R7725 server as configured above. VMware licenses are currently sold in 16-core packs, with a minimum of one pack per physical CPU—even if the CPU has fewer than 16 cores. Thus, because each of the seven legacy two-socket PowerEdge R740xd servers detailed above has 28 cores per socket, it requires two 16-core licenses per socket. For the seven servers, this totals 4 x 7 = 28 licenses. By contrast, the current-generation PowerEdge R7725 server requires only 16 of the 16-core licenses to cover all of its 256 cores. This represents a reduction of 12 required licenses for comparable performance or a 42.8% savings. Data accurate as of April 3, 2025. Source: SPEC. "**All SPEC CPU2017 Results Published by SPEC**." Accessed January 2025.

2. The Dell™ PowerEdge™ R6725 server with two AMD EPYC™ 9575F processors SPECrate® score is 1,740; the HPE® ProLiant® DL360 Gen11 server with two Intel® Xeon® Platinum 8593Q processors SPECrate score is 1,180. Source: SPEC. "**All SPEC CPU2017 Results Published by SPEC**." Accessed January 2025.

3. The two AMD EPYC™ 9965 processors in a single Dell™ PowerEdge™ R7725 server have a total TDP of 1,000 W (500 W x 2). The 14 Intel® Xeon® Platinum 8280 processors in seven PowerEdge R740xd servers have a total TDP of 2,870 W (205 W x 2 x 7), where each Intel Xeon Platinum 8280 processor has a TDP of 205 W. Consolidating workloads from the seven PowerEdge R740xd servers thus configured to a single PowerEdge R7725 server therefore represents a CPU power reduction of 65%. See Endnote 1 for further details. Source: SPEC. "**All SPEC CPU2017 Results Published by SPEC**." Accessed January 2025.

4. The Dell™ PowerEdge™ R6715 server with an AMD EPYC™ 9575F processor SPECrate® score = 784; the Lenovo® ThinkSystem® SD530 V3 server with an Intel® Xeon® Platinum 8592+ processor SPECrate score = 561. Source: SPEC. "**All SPEC CPU2017 Results Published by SPEC**." Accessed January 2025.

5. AMD. "**AMD Launches 5th Gen AMD EPYC CPUs, Maintaining Leadership Performance and Features for the Modern Data Center**." October 2024.

6. The 2P AMD EPYC™ 9755 processor scores 376,758 vsamples maximum score on Ubuntu® Linux®. Source: Chaos. "**V-Ray score preview**." Accessed January 2025.

7. The AMD EPYC™ 9355P processor scores best AIUCpm@SF10 (864.53 TPCx-AI, AIUCpm@SF10). Source: "**TPCx-AI Result Highlights (for Non-TPC Members)**." January 2025.

8. To illustrate with an example: the Dell™ PowerEdge™ R6715 server with an AMD EPYC™ 9575F processor SPECrate® score is 784; the previous-generation PowerEdge R7615 server with an AMD EPYC 9554 processor SPECrate score is 609. Source: SPEC. "**All SPEC CPU2017 Results Published by SPEC**." Accessed January 2025.

9. A 7:1 server consolidation represents an 85% reduction in server footprint. See Endnote 1 for details.

10. SPEC. "**All Published SPECpower_ssj2008 Results**." Accessed January 2025.

11. The Dell™ PowerEdge™ R6715 server with an AMD EPYC™ 9575F processor SPECrate® score is 784; the PowerEdge R7615 server with an AMD EPYC 9554 processor SPECrate score is 609. Source: SPEC. "**All SPEC CPU2017 Results Published by SPEC**." Accessed January 2025.

12. The Dell™ PowerEdge™ R6725 server with two AMD EPYC™ 9575F processors SPECrate® score is 1,740; the PowerEdge R7625 server with two AMD EPYC 9554 processors SPECrate score is 1,210. Source: SPEC. "**All SPEC CPU2017 Results Published by SPEC**." Accessed January 2025.

13. The 2P AMD EPYC™ 9965 processor with IBM DB2® 11.5 scores 201,000 benchmark users/SAPS running SAP® Sales and Distribution two-tier bare-metal. Source: "**Certification: SAP® Standard Application Benchmarks**." 2024.

14. The Dell™ PowerEdge™ R6715 server SPECstorage® overall response time 2020_ai_image score is 0.26 ms; the solution's AI_Jobs score is 75. Source: "**All SPECstorage Solution 2020_ai_image Results Published by SPEC**." Accessed January 2025.

15. The Dell™ PowerEdge™ R6715 server SPECstorage® overall response time is 0.09 ms; the solution's 2020_genomics score is 250 jobs. Source: **"SPECstorage™ Solution 2020_genomics Result**." September 2024.