A Techaisle White Paper

Dell PowerEdge Servers:

Empowering Mid-Size Business Success with AMD-Powered On-Premises Computing

techaisle

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Executive Summary

Informed by ***Techaisle's extensive interviews*** with mid-market firms, this white paper presents the authentic voices of customers actively using Dell PowerEdge Servers with AMD EPYC processors. It captures their invaluable insights, real-world experiences, and compelling case studies.

Mid-Market's Strategic Infrastructure Crossroads

Mid-sized enterprises are at a critical juncture, challenging conventional wisdom about IT infrastructure. While digital transformation and "cloud-first" strategies are prevalent, the reality for mid-market leaders reveals a more nuanced truth.

- **Increasing Complexity:** They face growing IT complexity, rising cloud costs, and the demand for consistent performance across diverse workloads.
- **Balanced Approach:** Their most vital operations necessitate a balanced infrastructure approach that extends beyond a singular cloud mandate.

Why On-Premises Infrastructure Remains a Strategic Choice for Mid-Market Firms

Today's mid-market businesses face enterprise-level demands, requiring every technology investment to deliver tangible impact and a competitive edge. They need infrastructure that strikes a balance between performance, cost, and control.

- **Control, Predictability, & Cost-Efficiency:** On-premises computing, especially on high-performance infrastructure, offers crucial control, predictable performance, and transparent cost structures.
- **Addressing Core Imperatives:** Modern on-premises solutions are uniquely positioned to provide:
  - **Predictable Performance** for critical applications.
  - **Complete Data Sovereignty** for sensitive information.
  - **Cost Transparency** that eliminates billing surprises.

Dell PowerEdge with AMD EPYC: A Future-Ready On-Premises Solution

Purpose-built for evolving workloads, Dell PowerEdge servers with AMD EPYC processors deliver an ideal blend of compute density, power efficiency, and robust security features.

- **Versatile Deployment:** These solutions are engineered to support versatile deployment demands, whether in:
  - Centralized data centers
  - Distributed edge locations
  - Traditional office environments
- **Cloud-like Agility On-Premises:** Far from rigid legacy data centers, Dell's PowerEdge portfolio provides intelligent, software-defined capabilities, offering cloud-like agility within controlled, secure environments.
- **Strategic Advantages:** The right on-premises foundation can unlock strategic advantages beyond mere efficiency:
  - Adeptly run sophisticated AI models on proprietary datasets.
  - Process edge data without incurring expensive transfer costs.
  - Maintain stringent compliance with industry regulations—challenges often compounded in pure cloud environments.
- **Enabler of Innovation:** Such infrastructure becomes an enabler of innovation and competitive differentiation.

The Path Forward: Architecting Optimal Deployment Strategies

The strategic choice for mid-market enterprises is not a binary "cloud vs. on-premises" decision. Instead, it revolves around architecting the optimal deployment strategy where each workload operates in its most effective and efficient environment, driving sustained competitive advantage and propelling growth. Dell PowerEdge servers with AMD deliver the performance, flexibility, and value required to thrive as mid-sized enterprises prepare for and navigate the next phase of digital transformation.

Mid-Market's Strategic Infrastructure: Beyond Cloud-First

Mid-sized enterprises are grappling with the "cloud-first" narrative, yet they are increasingly recognizing its limitations for core operations. **While hyperscale public cloud offers compelling advantages for specific use cases,** a deeper analysis reveals that modern on-premises server solutions often provide a more reliable, controlled, and cost-effective path for their mission-critical workloads and strategic data.

Solutions like Dell PowerEdge are indispensable in this context. Today's on-premises infrastructure is intelligent, software-defined, and hybrid-ready, offering predictable costs, unparalleled control, and optimized performance. It's about building a robust, secure, and cost-effective core, ensuring sensitive data remains in direct purview and critical applications perform without compromise.

The Mid-Market Imperative: Bridging Ambition and IT Reality

Mid-sized firms navigate a complex landscape of burgeoning data, stringent compliance, and escalating real-time demands. They face a unique challenge: significant enough to warrant enterprise pressures, yet often without the necessary enterprise resources.

Modern on-premises solutions effectively bridge this gap, providing the scalability, virtualization, and automation needed for intensive machine learning, sophisticated edge computing, and seamless hybrid cloud integrations. This optimizes resource allocation and enhances the performance of latency-sensitive applications, maintaining agility for evolving business needs.

Strategic On-Premises for Mid-Market Growth

Mid-market enterprises strive for profitable growth, sustainable scaling, and a high-performing workforce, while fortifying cybersecurity and data governance. These ambitions are often challenged by advanced cyber threats, data protection complexities, IT skills gaps, and the need to modernize legacy infrastructure within budget constraints, all while demonstrating clear IT ROI.

In this demanding environment, modern infrastructure is paramount. While cloud has its benefits, the core imperative for many mid-market firms is predictable performance, unwavering data control, and cost predictability for their most critical operations. Modern on-premises solutions, such as Dell PowerEdge, are not a legacy choice; they are a strategically vital foundation. They provide a secure, high-performance, and cost-effective platform that directly addresses the mid-market's need for enhanced control, optimized performance, and greater predictability, ultimately empowering growth and overcoming pressing IT challenges.

Why On-premises Solutions Matter in a Cloud-first World

Undeniably, the rise of public cloud services has transformed IT operations, delivering rapid deployment, unparalleled scalability, and global accessibility on a massive scale. However, as organizations achieve IT maturity and gain deeper insight into cloud utilization, a nuanced understanding emerges around the hidden complexities inherent in exclusively cloud-based approaches.

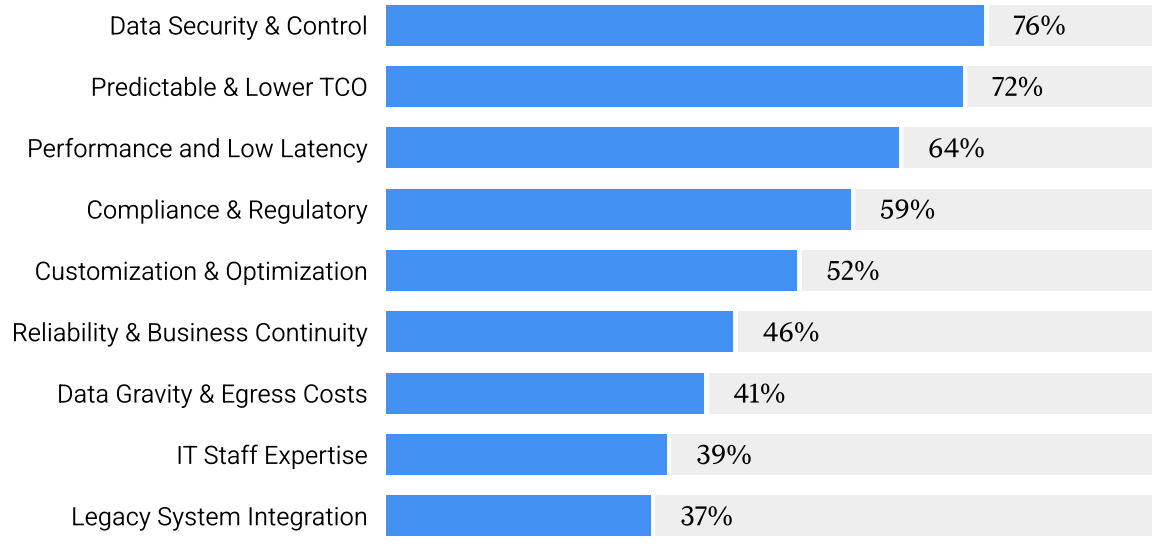
The operational simplicity that public cloud platforms promise often involves intricate pricing structures with fluctuating data egress fees, API usage charges, and storage tiering models, resulting in volatile and unpredictable monthly costs. Additionally, cloud infrastructures distribute customer data across multiple geographic locations, presenting significant risks for businesses with stringent data sovereignty requirements, particularly in sectors such as healthcare and finance.

The need for performance consistency further compounds these concerns. Core workloads for mid-sized organizations – such as financial transactions, ERP systems, and AI-driven inferencing – necessitate highly predictable, low-latency computing capabilities. Public cloud environments can struggle to deliver these due to multi-tenancy, where shared infrastructure can lead to variable performance. As a result, many organizations are reevaluating the role of on-premises compute infrastructure as a strategic pillar of their IT infrastructure.

Top 9 Factors Driving the Adoption of On-Premises Solutions in Mid-Market Firms

Drawing from extensive research into the IT buying patterns and key pain points of mid-market organizations, Techaisle, a leading global SMB and mid-market focused research and industry analyst firm, identifies the top nine drivers for on-premises solutions. The percentages that follow indicate the proportion of mid-market firms for whom each factor significantly influences their decision to maintain, retain, or adopt on-premises servers.

Mid-market On-Premises Adoption Factors| - Visual Overview



Source: Techaisle SMB & Midmarket Technology Adoption Trends research, 2025

76% Data Security and Control:

According to **Techaisle's survey, 76% of mid-market firms –** especially in regulated sectors or those handling valuable IP – prioritize direct control over their data. **Techaisle research also shows that mid-market firms experienced an average loss of US$11.1 million due to security breaches.** Knowing the location of data, managing access, and ensuring physical security are critical. Dell PowerEdge servers address these needs with robust security features and integrated management tools. Starting with the 15th Generation, PowerEdge servers offer silicon-based security, including iDRAC Root-of-Trust authentication for cryptographic verification and system lockdown. They also provide UEFI variable write protection, secure BIOS recovery with backup images in iDRAC, and a strong CVE response process with timely updates and threat assessments.

72% Predictable & Lower Total Cost of Ownership (TCO) for Stable Workloads:

advantages, **Techaisle research shows that 72% of mid-market firms believe that on-premises CapEx delivers a lower, more predictable TCO** for stable workloads over a three- to five-year span. It also helps avoid "cloud bill shock" from egress fees, unpredictable usage, and licensing complexities. Dell's TCO calculators enable detailed cost comparisons, taking into account hardware, software licensing, power consumption, and maintenance costs. PowerEdge servers with preinstalled Windows Server 2022 simplify deployment by eliminating manual OS setup, saving 2-4 hours per server. Enhanced energy efficiency – **up to 74% better performance and 23% higher performance per watt** – further reduces operational costs.

64% Performance and Low Latency for Critical Applications:

Applications such as ERP, financial systems, databases, and AI/ML inference often require sub-10 ms latency. On-premises hardware consistently delivers superior performance for these workloads, thereby avoiding the latency issues commonly found in multi-tenant cloud environments. **64% of mid-market firms cite low-latency performance as a top priority**. Dell PowerEdge servers are designed for high-performance, latency-sensitive applications, such as real-time inventory management, production planning, and financial transactions. Features like Dell Processor Acceleration Technology (DPAT) and specialized BIOS tuning ensure stable, low-latency operation, with consistent sub-millisecond response times.

59% Compliance and Regulatory Requirements:

Many organizations are required to comply with stringent data sovereignty laws and industry-specific regulations, such as HIPAA, PCI DSS, GDPR, and CMMC. **According to Techaisle's survey, 59% of mid-market firms find on-premises infrastructure the most straightforward path to compliance,** as it offers direct control over data location and security, making audits more straightforward and transparent. Dell PowerEdge solutions support regulatory compliance with secure boot, detailed audit trails, and simplified reporting tools. They feature FIPS-compliant encryption, configurable cryptographic modules, and support for frameworks like PCI-DSS, with robust access controls and audit logging to streamline validation and compliance reporting.

52% Customization and Specific Workload Optimization:

Mid-market firms often run specialized workloads needing tailored hardware, OS, and application configurations. **Techaisle's survey reports that 52% of mid-market firms prefer on-premises solutions for their flexibility over standardized cloud instances.** Dell PowerEdge servers meet this need with extensive configurability, supporting custom processor, memory, and storage setups. They align with OCP and DC-MHS standards, offering flexible I/O designs, smart power and cooling, and configurable system profiles that optimize performance or efficiency based on workload demands.

46% Reliability and Business Continuity:

Despite cloud providers' high availability assurances, challenges with shared infrastructure and regional outages can still impact operations. **Techaisle found that 46% of mid-market firms prefer on-premises solutions due to concerns about the reliability of cloud solutions.** On-premises infrastructure ensures control over redundancy, power, and disaster recovery, thereby minimizing downtime and ensuring business continuity. Dell PowerEdge servers are designed for enterprise-grade reliability, featuring redundant components, predictive failure analysis, and 24/7 support through Dell OpenManage Enterprise Services. They offer hot-swappable parts, iDRAC remote management, TPM 2.0 security modules, and redundant power supplies, ensuring consistent uptime for mission-critical operations.

41% Data Gravity and Egress Costs for Large Datasets:

Transferring large datasets, such as those from IoT, media, or research, to and from the cloud often incurs high egress costs, which can slow performance. **Techaisle reports that 41% of mid-market firms with large datasets prefer on-premises solutions for cost efficiency and control.** Dell PowerEdge servers eliminate cloud transfer fees and bandwidth limits, supporting high-capacity storage and fast networking for local data processing. PowerEdge configurations deliver scalable storage architectures with high-density drive support and integrated storage solutions, enabling cost-effective management of multi-petabyte datasets without recurring cloud expenses.

39% IT Staff Expertise and Existing Investments:

Many mid-market IT teams are experienced in managing on-premises infrastructure, with **39% citing experience as a key reason for preferring it over cloud alternatives.** Rather than re-training staff or re-platforming, firms aim to maximize existing skills and investments. Dell PowerEdge servers integrate smoothly with familiar tools like iDRAC, SNMP, and standard admin practices. OpenManage Enterprise supports unified management across up to 4,000 servers. It integrates with VMware vCenter, Microsoft System Center, and other tools, enabling teams to leverage their existing expertise without incurring additional training costs.

37% Integration with Legacy Systems and Applications:

Mid-market firms often rely on critical legacy applications that are challenging and costly to migrate to the cloud. **37% of midmarket firms in the Techaisle survey cite on-premises infrastructure as essential for ensuring compatibility and control over integration.** Dell PowerEdge servers offer broad OS and application compatibility, supporting legacy Windows, Linux, and UNIX environments. They include support for older interfaces, expansion cards, and flexible I/O, making them ideal for integrating legacy systems. The Lifecycle Controller simplifies OS deployment with integrated drivers, enabling gradual modernization without disrupting operations.

These factors demonstrate that on-premises adoption is not only driven by technological preferences but also by concrete business imperatives. While understanding these strategic drivers provides crucial context, a critical question IT leaders face is which specific workloads and applications truly benefit from on-premises deployment. The answer lies in examining real-world use cases where these factors converge to create compelling business value.

Case Study 1 – Success Story:

Transforming Telecom Infrastructure with High-Density Computing

Background and Challenge:

A 26-year-old cloud contact center operates four data centers (two in the USA and two in Europe), serving enterprise clients who rely on low-latency telecommunications services. With its revenue directly tied to 24/7 uptime and service reliability, the company faced the challenge of transitioning to virtualization while maintaining stringent low-latency requirements for voice and media processing.

Its existing infrastructure could not efficiently support the growing demand for high-density virtualized environments and AI workloads. Additionally, it needed VMware-certified hardware that could deliver high performance while effectively managing licensing costs.

Solution:

- Deployed Dell PowerEdge servers with AMD processors across its data centers
- Chose Dell and AMD over cloud solutions to maintain control over latency-sensitive applications
- Leveraged AMD's superior core density for VMware environments, thereby avoiding unpredictable cloud cost

Impact:

- Achieved a 20-25% higher CPU density compared to alternatives
- Reduced VMware licensing costs by 25% due to the higher core count per socket with AMD processors
- Lowered server costs by 10-15% compared to HPE alternatives
- Reduced operational costs by 10-15% through lower power consumption and cooling requirements

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> *PowerEdge servers with AMD processors has improved our customer satisfaction by at least 20% by having fewer outages and smoother operations. All those reliability issues we had earlier have now been resolved. This has decreased our customer support tickets by at least 15% because we have fewer outages and fewer performance issues, so customers call us less frequently*
>
> — **Senior Director of IT Cloud Operations**
> at a mid-sized cloud contact center software company

Case Study 2 – Success Story:

Maximizing Server Density while Minimizing Operational Costs

Background & Challenge :

A mid-sized e-commerce and financial services company was facing critical reliability issues with its previous server infrastructure. The company operates multiple data centers with hundreds of database instances, business intelligence platforms, and virtualization environments to serve a diverse range of client needs.

The company was experiencing excessive hardware failures, which were disrupting business operations. Its existing infrastructure was inadequate for efficiently consolidating workloads for data-intensive applications such as analytics, databases, and virtualization platforms. Additionally, rising power consumption costs in their colocation facilities were becoming unsustainable, contributing to higher operational expenses.

Solution:

- Transitioned 60% of its server fleet to Dell PowerEdge servers with AMD EPYC processors.
- Chose Dell and AMD over cloud-only solutions for superior cost efficiency and performance in multi-threaded applications.
- Implemented customized hardware specifications tailored to specific workload requirements.

Impact:

- Achieved a 70–80% improvement in server reliability, significantly reducing downtime and hardware failures
- Realized a 60–70% reduction in power consumption, saving $6,000–$7,000 per rack monthly
- Lowered operational costs through enhanced energy efficiency.
- Improved system stability and reduced outages led to a 20% increase in customer satisfaction
- Witnessed a 15% decrease in customer support tickets

> *With Dell, we've seen around 70-80% improvements in reliability, meaning the number of server failures decreased by 80% annually, as compared with our previous system*
>
> **— Director of IT at a mid-sized dealership management system provider**

Understanding the Mid-market Business Case for On-premises Servers

Making the right infrastructure decisions involves understanding how on-premises solutions can provide real business benefits. The following use cases demonstrate how mid-market firms utilize on-premises infrastructure to fulfill their core needs. These applications encompass a range of requirements, from essential business systems that demand high reliability to new technologies that require specialized performance. By linking these use cases to their strategic goals, IT leaders can make informed decisions about which workloads to deploy on-premises, ensuring a potent combination of performance, security, and cost-effectiveness for their organization.

Core Business Applications:

Enterprise resource planning (ERP), customer relationship management (CRM), and financial accounting systems require consistent, low-latency database access and are sensitive to performance fluctuations. Data sovereignty concerns and customization needs make cloud migration a complex and expensive process. On-premises infrastructure offers predictable performance, minimal latency, direct control, and lower total cost of ownership (TCO) for stable workloads. Dell PowerEdge servers with AMD processors provide scalability and performance for database-intensive workloads, optimized for enterprise applications, including SAP HANA-certified environments.

Databases and Data Warehousing:

Mid-market firms require fast query responses, efficient data processing, and strict data governance for transactional databases and data warehouses used for business intelligence. On-premises solutions deliver superior I/O performance, lower latency for complex queries, reduced data egress costs, and direct control over data security, backup, and recovery. Among on-premises solutions, PowerEdge R-Series servers with AMD processors and persistent memory offer significantly improved performance for Microsoft SQL Server 2019, delivering enhanced speed and efficiency compared to traditional storage configurations.

> *With Dell's PowerEdge servers running AMD processors, we've been able to speed up our data analytics and business intelligence workflows by 30-40%. The higher core count and improved memory bandwidth enable us to handle large volumes of real-time data processing, resulting in smoother and faster performance of our financial applications, as well as a significant reduction in processing time.*
>
> **— Director of IT at a mid-sized dealership management system provider**

Virtualization and Private Cloud:

Many mid-market firms utilize VMware vSphere and Microsoft Hyper-V to optimize hardware utilization and establish private cloud environments. This offers cost-effective workload consolidation, optimal performance, complete control over resource allocation and security, and seamless integration with existing IT tools. PowerEdge servers integrate with VMware Cloud Foundation, enabling deployment of new clusters in 2 hours and 22 minutes. The platform supports VMware Tanzu for Kubernetes, vSAN Ready Nodes with vSphere Lifecycle Management, and comprehensive integration with VMware vSphere and Microsoft Hyper-V through native Dell management tools.

Edge Computing and IoT Workloads:

Mid-market firms adopting Industry 4.0, smart retail, and distributed operations need computing power at factories, stores, remote offices, and distribution centers for local data processing. This enables ultra-low latency for real-time analytics, reduces bandwidth requirements, enhances security for localized data, and ensures compliance for data that must remain at its origin. PowerEdge edge servers offer rugged, compact solutions designed for harsh environments with minimal IT support requirements. These systems deliver enterprise-grade performance in space-constrained locations, supporting AI inference and real-time processing at the edge. Dell's edge portfolio offers integrated management and remote monitoring capabilities, ensuring reliable operation across distributed locations.

High-Performance Computing (HPC) and Specialized Workloads:

While not all mid-market firms have traditional HPC needs, many utilize specialized applications for CAD/CAM, scientific simulations, video rendering, complex analytics, or AI/ML model training and inference that require immense processing power through GPUs or specialized accelerators. These workloads benefit from on-premises deployment to maximize performance through direct hardware access, avoid egress costs for large datasets, and ensure consistent computational resources without interference from the cloud. PowerEdge servers equipped with high-performance GPUs and multi-core AMD EPYC processors deliver the computational density and parallel processing capabilities essential for these demanding workloads, providing direct hardware access and memory bandwidth optimization critical for sustained high-throughput operations.

Data Archiving, Backup, and Disaster Recovery:

Many mid-market firms maintain on-premises infrastructure for immediate data backup, rapid system recovery, and long-term archiving, ensuring compliance and business continuity in the event of internet outages or cloud disruptions. This approach delivers faster recovery times (RTO/RPO), physical control over backup media, reduced long-term storage costs for cold data, and simplified compliance with data retention policies.

To support the diverse needs outlined above, Dell PowerEdge servers provide the ideal infrastructure foundation for mid-market businesses. With their scalability, reliability, and performance, PowerEdge solutions empower organizations to meet the demands of both core business applications and emerging technologies. Among these, the Dell PowerEdge R-Series stands out as a versatile platform, specifically designed to support virtualization, edge computing, and a range of mission-critical workloads.

Dell PowerEdge R-Series: The Compute Backbone for Mid-market Growth

Operating in a hybrid IT environment, midmarket businesses must virtualize workloads, support legacy systems, and extend compute power to the edge for real-time decision-making. Dell's PowerEdge R-Series servers with AMD EPYC processors meet these needs by seamlessly integrating with platforms such as VMware vSphere and Microsoft Hyper-V. These servers allow businesses to scale from dozens to hundreds of virtual machines with minimal IT expertise. Legacy applications benefit from the PowerEdge R-Series' reliable performance, enabling both continuity and modernization.

At the edge, R-Series servers bring processing power closer to data sources, enabling retailers to analyze customer patterns, optimize logistics, and process diagnostics in real-time, all while reducing latency and improving responsiveness. The PowerEdge R-Series is a powerful computing platform for workloads such as virtualization, databases, and enterprise applications. With AMD EPYC processors, it delivers a 66% performance boost, accelerating database queries, reducing batch processing times, and improving application performance. The PowerEdge R-Series is packed with

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> *We switched to the R-Series about eight months ago, and honestly, it's been night and day compared to our old setup. What really surprised us was how we consolidated three of our old servers into just one PowerEdge R7625, which freed up a ton of rack space and cut our power bills by about 30%. The servers just don't hiccup like they used to, which is huge when you've got customers depending on you for their mortgage payments and business deposits.*
>
> **— Senior Product Director at a mid-sized financial institution**

Case Study 3 – Success Story:

Strengthening Financial Services Infrastructure for Regulatory Compliance and Performance

Background & Challenge :

A mid-sized regional bank with 1,000 employees needed to modernize its infrastructure supporting critical operations across 45 branch locations and its digital banking platform. As part of its operations, the bank processes thousands of transactions daily, adhering to strict regulatory requirements, including PCI DSS, SOX compliance, and state banking regulations.

With its legacy servers in place, the bank struggled with real-time fraud detection, regulatory reporting, and the increasing volume of digital banking transactions. System latency was negatively impacting customer experience, resulting in longer-than-acceptable loan processing times and slowdowns in mobile banking during peak usage periods. Additionally, data sovereignty requirements made cloud migration complex and potentially non-compliant with banking regulations.

Solution:

- Chose Dell PowerEdge R-Series servers with AMD EPYC processors over cloud alternatives
- Deployed multiple PowerEdge servers
  - PowerEdge R760 servers for core banking applications
  - PowerEdge R6525 servers for virtualization environments,
  - PowerEdge R7625 servers for business intelligence and analytics workloads

Impact:

- Achieved a 40% improvement in loan processing times
- Reduced end-of-day batch processing time from six hours to three hours
- Increased digital banking adoption by 30%.Simplified audit processes with regulators noting comprehensive data control measures
- Eliminated system-related customer complaints, improving Net Promoter Scores and strengthening customer relationships

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> *The decision to go with Dell PowerEdge really came down to control and predictability – in banking, you can't afford to have systems slow down when customers are trying to access their accounts. What impressed us the most was how quickly we saw results, with loan processing times improving by almost 40% immediately and those frustrating digital banking slowdowns completely eliminated… Having everything on-premise with clear audit trails made our regulatory conversations so much easier compared to trying to explain cloud data flows to auditors*
>
> **— Senior Product Director at a mid-sized financial institution**

Dell PowerEdge with AMD: Infrastructure Modernization for Business Success

Dell PowerEdge servers with AMD EPYC processors provide unique benefits and unprecedented efficiency gains through architectural innovation, power optimization, and operational simplification. These advantages equip midmarket firms to formulate a winning compute strategy while addressing key IT objectives: maximizing performance, controlling costs, and simplifying management.

Driving better efficiency while refreshing legacy infrastructure:

Many midmarket firms rely on older systems that cannot efficiently support modern workloads. The AMD EPYC series enables massive server consolidation, allowing businesses to replace up to seven older servers with a single, more powerful system. The impressive core density provides up to 73% better power efficiency while maintaining support for legacy applications without requiring a complete redesign. Dell OpenManage Enterprise integration automates routine maintenance and provides proactive monitoring, delivering a 25% reduction in manual server management overhead. The result is a 70-80% improvement in server reliability metrics, enhanced efficiency, and reduced energy consumption and operational complexity.

Optimizing workload performance for both legacy and new applications

Dell PowerEdge servers with AMD EPYC processors excel in workload optimization due to their superior memory bandwidth, enhanced I/O capabilities, and parallel processing strengths. AMD EPYC supports 12 memory channels per socket, compared to 8 for competitors, and implements PCIe Gen5, which delivers double the bandwidth of Gen3 systems, eliminating bottlenecks for data-intensive applications. These processors lay the foundation for AI, edge computing, and cloud-native applications, while supporting existing systems. They deliver 35-40% higher session density for VDI clusters, 35-40% improvements in SQL throughput, and 50% gains in AI inferencing performance. PowerEdge servers support containerized applications and AI/ML workloads with GPU integration, enabling businesses to modernize systems without disrupting legacy applications.

Lowering the total cost of ownership (TCO) while avoiding forklift migrations

Dell PowerEdge servers with AMD EPYC processors enable substantial reductions in total cost of ownership (TCO) through licensing optimization, hardware consolidation, and lower operational expenses. Organizations can implement a gradual transition strategy, achieving a 25-40% reduction in VMware licensing cost with over 42% per-core savings. Since hypervisor platforms charge per CPU socket rather than per core, AMD's ability to pack more cores into each socket means businesses need fewer sockets to achieve the same computing power, resulting in lower licensing fees. The ability to replace 2-3 older servers with a single AMD-powered unit reduces hardware acquisition costs by 10-25%, power consumption, and management overhead. Post-migration, these servers ensure performance improvements across both refreshed legacy systems and newly deployed modern applications, supporting immediate operational needs and future growth initiatives.

Supporting modernization and innovation on a unified platform

As businesses develop AI products and machine learning capabilities, Dell PowerEdge servers with AMD EPYC processors form the foundation for modernization and innovation initiatives. AMD architecture offers advantages over competitors in core density, power efficiency, memory bandwidth, and PCIe lanes, directly impacting the number of GPUs that can be supported and the speed at which they handle machine learning workloads. Dell's reliable infrastructure provides a solid foundation for businesses and IT engineers to innovate with confidence.

Conclusion: Gearing up for Future Growth with Dell PowerEdge

Mid-market firms today face a strategic conundrum: balancing the benefits of cloud computing with the undeniable advantages of performance, cost, and control offered by modern on-premises infrastructure. This choice is particularly complex given the rise of hybrid work scenarios, the imperative for real-time data processing, and increasing compliance pressures. While the cloud offers flexibility, it often comes at the cost of predictability, latency, and data sovereignty—factors that are non-negotiable for mission-critical operations.

Simultaneously, with compelling advantages such as robust data sovereignty compliance, predictable cost structures, superior performance, and stringent security controls, on-premises solutions remain indispensable for organizations seeking a lasting competitive edge. Today's infrastructure challenges demand sophisticated, modern solutions, and Dell PowerEdge servers with AMD EPYC processors represent a premier choice for organizations seeking exemplary on-premises computing technology. Furthermore, the proven benefits—including enhanced reliability, accelerated deployment, and significant cost savings—underscore Dell and AMD's leadership in delivering enterprise-class solutions explicitly tailored to the nuanced needs of mid-market firms.

Ultimately, the optimal path forward is not a binary "cloud vs. on-premises" decision, but rather about architecting the right mix of solutions. By strategically embracing intelligent, scalable on-premises and edge solutions, mid-market businesses can effectively future-proof their infrastructure, drive innovation closer to the data source, and remain agile in a rapidly evolving digital environment.

Next Steps: Your organization's digital transformation journey begins with a solid foundation in infrastructure. We encourage you to engage with Dell Technologies to schedule a comprehensive infrastructure assessment, explore tailored PowerEdge solutions, or leverage the extensive resources available through Dell's partner network. The future success of your business hinges on making informed infrastructure decisions—Dell PowerEdge servers with AMD EPYC processors offer the performance, reliability, and value required to excel in today’s dynamic business environment.

ABOUT TECHAISLE

As the premier global industry analyst and market research firm, Techaisle empowers technology vendors, their channel partners, and customers with unparalleled insights into the dynamic SMB, midmarket, and broader partner ecosystems. Techaisle's data-driven research, informed by extensive surveys of customers and channel partners, illuminates critical market trends and technology priorities across vital areas such as cloud, generative AI, managed services, mobility, analytics, PCs, collaboration, IT services, cybersecurity, and digital transformation. Techaisle's deep-dive research into MSPs, VARs, SIs, and consultants provides actionable intelligence for navigating complex channel landscapes. The firm delivers this expertise through advisory and consulting services, syndicated research, bespoke primary research, and competitive intelligence, enabling clients to strategically grow market share and drive informed decision-making.

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