

# The Smart Path Forward: PowerEdge R-Series for Growing Business Success

Transform Operations, Embrace AI, and Scale Seamlessly with Next-Gen Intel® Xeon® Processors

## Executive Summary

Growing businesses today operate in a landscape where every customer, data set, and digital moment matters. To rise above operational limitations, growing businesses need infrastructure purpose-built for adaptability, intelligence, and security. PowerEdge R-Series rack servers—R260, R360, R470, R570, R670, and R770—deliver on this promise with a full spectrum of capabilities, from streamlined entry-level compute to high-performance, AI-optimized workloads.

This paper provides guidance for growing businesses evaluating their IT modernization journey, outlining the specific benefits, use cases, and real-world value these servers provide. Enhanced with advanced Intel® Xeon® processors, businesses benefit from improved security, accelerated AI and analytics, and operational simplicity via automation and unified management.

Citations and key statistics throughout substantiate the impact, providing IT decision-makers the confidence to create a future-ready operation that delivers for customers now and into the future.

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## Taking the Next Step: The Modernization Imperative for Growing Businesses

Success in today's world is measured by agility, insight, and the ability to deliver outstanding experiences. Growing businesses cannot settle for "good enough"—they must build an infrastructure designed for today's complexity and tomorrow's opportunities.

PowerEdge rack servers, engineered for reliability and intelligence, offer the flexibility to match growth ambitions, support evolving workloads, and provide peace of mind that business data stays protected.



**Peak Performance for Growing Demands:** Harness the power and flexibility of these servers to scale operations efficiently as your business grows.

### Legacy Limits: Barriers and Business Impact

- **Fragmented Data:** When data is trapped on outdated hardware, valuable insights are lost. Coordinating teams, optimizing operations, and serving customers becomes harder.
- **Performance Drag:** As business needs outgrow legacy equipment, slow application response and downtime become commonplace. PowerEdge R-Series servers offer up to 3.35x performance improvement compared to prior models.
- **Security Risks:** Threats evolve—so do solutions. The R-Series integrates multi-layered security (Silicon Root of Trust, MFA, Secure Erase), providing Zero Trust readiness and real-time threat detection.



legacy Hardware



PowerEdge Servers



**Energy Efficiency at Its Core:** New PowerEdge R-Series servers deliver up to 73% boost in power efficiency compared to legacy solutions.

R670, source: DT8NJeRuQml7aKEylev8

## PowerEdge R-Series: The Advantage at Every Level



**Built to Scale:** From the energy-efficient, entry-level R260 and R360 for essential workloads to the advanced, AI-ready R670 and R770, there's a configuration for every business stage.



**Cyber Resilience:** Dell PowerEdge servers provide end-to-end protection. With up to 3.5x more security features than competitors and advanced supply chain integrity, businesses reduce risk from design to retirement.



**Intelligent Automation:** OpenManage and iDRAC simplify lifecycle management, driving efficiency at scale. Save up to 150 minutes of management time per 100 servers.



**Energy and Cost Savings:** The latest R-Series models help reduce power consumption without sacrificing performance—one R770 delivers up to 5x the performance of legacy servers with 80% rack space reduction and \$23,000 in annual energy savings (R-Series Data Center Servers.docx).

**Smart Automation for Simplicity:** PowerEdge R-Series integrates intelligent automation tools, such as iDRAC, enabling businesses to work smarter—not harder.

### Meet the Portfolio: R260, R360, R470, R570, R670, and R770

#### R260 & R360: Reliable, Affordable, and Easy to Manage

Perfect for growing businesses new to racks, branch locations, or those seeking streamlined, cost-effective compute.

- Features: Latest Intel® Xeon® E-Series processing power, DDR5 memory, and compact designs ideal for office or near-edge deployments.
- Best For: Centralized file sharing, print, collaboration tools, and light virtualization.
- Statistic: The R360 offers effortless management, energy efficiency, and integrated security features.

#### R470 & R570: The Balanced Performers for Growing Workloads

- One Intel® Xeon® 6 P-core or E-core processor, scalable for mixed environments.
- Strengths: Cost-effectiveness, energy efficiency, and flexibility—especially for virtualization, databases, and business-critical applications that need reliability without complexity.
- Best For: Virtualization, business process apps, and multi-workload support.
- Statistic: R470 and R570 maximize efficiency and affordability in dense environments

source: Tower-QRG-spec-sheet (2).pdf

## R670 & R770: High-Performance, Scalable, and AI-Ready

- Dual Intel® Xeon® 6P-core or E-core processors, PCIe Gen5 for maximum speed, support for up to 40 NVMe drives, and diverse GPU configurations.
- Best For: AI/ML, analytics, large databases, cloud-native apps, and high-performance virtualized environments.
- Statistic: R670 boosts performance up to 3.35x vs. its predecessor, while the R770 enables up to 80% rack space reduction and excels in big data analytics, distributed inferencing, and microservices.



Security



Remote access

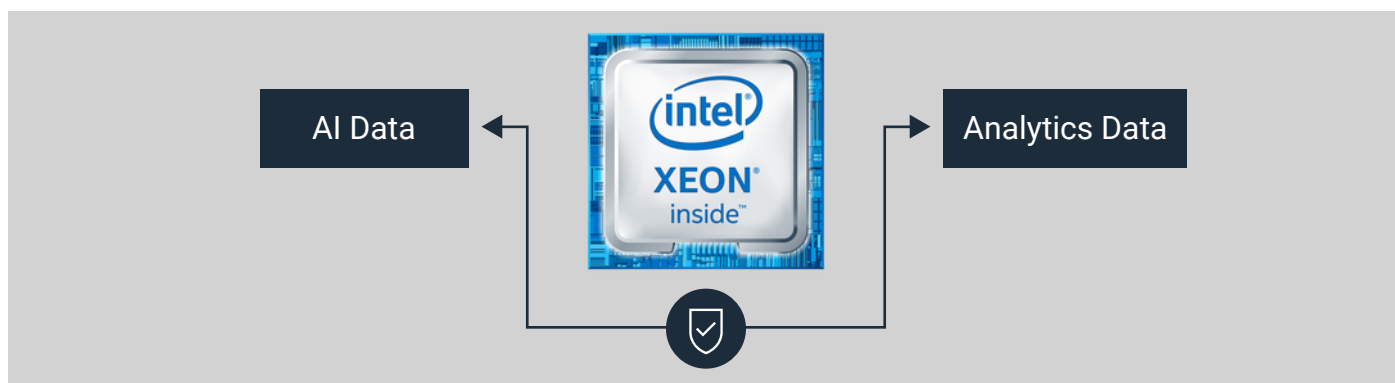


Collaboration

## AI & Analytics: Unleashing Potential with Intel® Xeon®

Intel® Xeon® processors are engineered to accelerate insights and decision-making directly at the core of your IT.

- AI Acceleration: Intel® Deep Learning Boost streamlines inferencing for real-time analytics, fraud detection, and advanced automation workflows. No additional hardware required.
- Consistent High Performance: High core counts, DDR5 memory, and PCIe Gen5 support future-proof application demands.
- Hardware-Layer Security: Features like Intel® Trust Domain Extensions (TDX) and Software Guard Extensions (SGX) isolate and protect your most sensitive data at the silicon level, supporting regulatory compliance and business continuity.



**Unleash AI & Analytics:** Fast-track insights without complexity—no additional hardware needed for AI inferencing on Intel® Xeon®-powered R-Series servers.

## Real-World Impact: Retail, Healthcare & Beyond

### Retail Use Case:



A retailer needed efficient inventory and more personalized customer engagement. The R470, combined with AI applications running on R670, enabled real-time inventory updates and automated marketing analytics. Outcome: reduced stockouts, improved revenue, and higher customer satisfaction.

### Healthcare Use Case:



A growing clinic upgraded to R770 and R570 rack servers, accelerating EHR access and analytics. The streamlined infrastructure enabled faster diagnostics, improved patient experience, and compliant data security.

**Statistic: PowerEdge R-Series with Intel processors enable up to 73% boost in power efficiency and reductions in downtime and maintenance costs.**

## Conclusion & Next Steps: Building with Confidence

With PowerEdge R-Series rack servers—R260, R360, R470, R570, R670, and R770—Intel® Xeon® processors growing businesses unlock the tools to meet complexity head-on and thrive in an ever-evolving market. Combining security, performance, energy efficiency, and intelligent automation, these servers give growing businesses a clear path to agile operations, impactful outcomes, and a foundation for future innovation.



**Security You Can Rely On:** PowerEdge R-Series servers incorporate built-in cyber-resilient architecture, ensuring businesses are protected against evolving security threats.



**Peak Performance for Growing Demands:** Harness the power and flexibility of these servers to scale operations efficiently as your business grows.



**Energy Efficiency at Its Core:** Lower operational costs with servers designed to optimize energy consumption without compromising on reliability.



**Smart Automation for Simplicity:** PowerEdge R-Series integrates intelligent automation tools, such as iDRAC, to reduce complexities, enabling businesses to work smarter, not harder.



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