Empowering IT Modernization for Superior Customer Outcomes

Drive performance, security and sustainability with Dell Technologies and AMD.

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While digital transformation looks different for every organization, it is clear that high-performing solutions in areas like high performance computing (HPC), artificial intelligence (AI), and hyperconverged infrastructure (HCI) can deliver a serious edge over your competition.

And when you combine Dell Technologies and AMD for HPC, the path there is easier than you think. Together we set high standards for performance, security capabilities and energy-efficiency for your most demanding workloads.

The breadth of our joint solutions empowers organizations across industries, including healthcare, finance and manufacturing to drive intelligent insights for better decision making and faster problem solving.

See for yourself what can happen when you push your business to the limits — and beyond — with innovative, jointly engineered solutions from Dell Technologies and AMD. Helping increase compute power, lower infrastructure costs, and reduce energy consumption all with robust security features are just the beginning.

This eBook explores the many advantages of the Dell Technologies server portfolio with AMD® processors and how our joint solutions create an advantage for customers across the globe.

VERNE GLOBAL

Delivering high-intensity compute services powered by clean, affordable energy

Verne Global® operates a vast, industrial-scale data center campus in Iceland, built from the ground up with scalability, sustainability and security front of mind. Located on a former NATO base and fueled by 100% renewable energy sources, this groundbreaking data center powers some of the world's most innovative and demanding organizations.

Business need:
- A robust infrastructure to meet the HPC needs of demanding industries
- Identified sustainability, performance and scalability as key priorities

Business results — Verne Global helps its customers:
- Customize high-intensity compute solutions using the latest processor architectures
- Cut operational costs and improve sustainability with 100% renewable energy
- Enable business growth with an IT infrastructure that scales easily to meet current demands

> " We have built a data center facility that makes optimal use of Iceland's unique environment. The climate enables us to support the highest possible compute density for our customers while also providing an opportunity to scale.
>
> **Dominic Ward,**
> Chief Executive Officer, Verne Global

CINESITE

Supercharging postproduction with AMD EPYC CPUs

Cinesite is an award-winning digital entertainment studio with 30 years of experience and work on hundreds of film, TV and streaming productions. They work closely with filmmakers and studios to achieve the impossible, whether through complex visual effects or conceiving and realizing entire animated films.

Business need:

- To ensure their rendering infrastructure could support high workload demands
- To evaluate and assess overall compute per dollar
- To ensure output from AMD processors was comparable to other market leaders

Business results:

- For *The Addams Family 2*, AMD EPYC™ processors helped with an outstanding iterative workflow.
- AMD EPYC processors had two and a half times the number of cores on each chip.
- The price was about 30% lower for the overall amount of compute needed.

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The [AMD EPYC] price was much lower for the overall amount of compute we needed, around 30%. **It was absolutely a no-brainer.**

Jeremy Brousseau,
Head of IT, Cinesite Vancouver

Power and performance to meet research computing demands

For more than 150 years, Purdue University® has stood as a highly regarded public land-grant university serving 41,000 students from multiple locations. With more than 400 labs, Purdue has a research budget of approximately $350 million annually.

Business need:

· The university wanted to build an HPC facility to deliver resources for computer-aided discovery to more faculty and staff.

· They needed an HPC platform to serve its own team and the national research community.

· Data center space and power efficiency were key considerations.

Business results:

· Purdue's Anvil supercomputer serves thousands of researchers across the U.S. through the NSF's Extreme Science and Engineering Discovery Environment (XSEDE).

· The supercomputer delivers over 1 billion CPU core hours to XSEDE each year.

· Went from 9% to 39% faster performance compared to what it had been receiving from the community cluster it built a year earlier.

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> One of the things that really made PowerEdge and AMD EPYC processors so compelling is that **they enable four 128-core nodes in 2U of rack space**.

Preston Smith,
Executive Director, Research Computing,
Purdue University

Hyperscaler increases performance and lowers costs

QTS is a leading provider of data center solutions, with a footprint of over seven million square feet spanning 28 QTS Mega Data Center locations throughout North America and Europe.

Business need:

- Optimized infrastructure to support anytime access to critical infrastructure metrics for performance, access, power and temperature

- Lower costs, space savings, and improved performance and management

Business results:

- Achieves anytime, anywhere access to data center metrics and real-time analytics with software-defined data centers and industry-first software-defined orchestration

- $1,000,000+ saved in operational costs over three years, $500,000 saved in capital expenses

- Performance improvements up to 50% — and less downtime

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Dell vSAN Ready Nodes offered an AMD single-socket solution, which helped us lower our costs without compromising performance. **We're able to save over a million dollars in operational expenses over three years**.

J.J. McDaniel,
Senior Cloud Architect, QTS Data Centers

BancoDaycoval

Driving innovation in credit applications, customer satisfaction and bank transfers

Banco Daycoval, a Brazilian credit lender, is primarily focused on credit for legal entities, which represents 85% of the bank's bottom line. To drive the level of performance and reliability needed, the bank built its IT foundation using Dell PowerEdge servers powered by second- and third-generation AMD EPYC processors.

Business need:
- Advanced computing capabilities to handle complex mathematical calculations
- Scalable infrastructure to maintain system performance during massive growth
- Processing power to support traditional systems and new applications

Business results:
- 100% growth and fivefold increase in payroll loans in just 2 years — without performance restrictions
- A portfolio that doubled in size
- Less energy consumption

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We believe this new [AMD EPYC] processor **will provide us with the scalability** we need to take a leap forward.

Alexandre Rhein,
Technology and Infrastructure Director,
Banco Daycoval

Dell Technologies and AMD — Proven to deliver

Companies across industries and across the globe are recognizing the advantages of AMD processor-powered Dell Technologies solutions. Whether it's the incredible compute power for HPC or AI workloads, the built-in cyber-resilient security features, low operating costs, or energy efficient operation, you can count on both companies to deliver quality solutions that are well integrated, help minimize risk, and can take your business into the future.

Learn More

Contact your sales representative and visit our web page:
Dell PowerEdge Servers powered by AMD.

D∕LL Technologies

AMD