Dell Technologies Powers TACC's New Supercomputer Horizon

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Horizon, the nation's largest academic supercomputer, will use Dell solutions to accelerate progress for research, discovery and open science

Story Highlights

- Texas Advanced Computing Center (TACC) is working with Dell Technologies to launch Horizon, the nation's largest academic supercomputer
- This NSF-funded, Dell-powered high-performance compute (HPC) cluster will tackle major challenges, including advancing open science—making research and data accessible to all—and driving breakthroughs in health, climate and energy
- Dell PowerEdge servers with NVIDIA accelerated computing will serve as Horizon's HPC engine to help researchers drive scientific discovery
- Horizon delivers 300 petaflops—10x faster than TACC's Frontera, the current No. 1 academic supercomputer in the U.S.

ROUND ROCK, Texas--(BUSINESS WIRE)--Nov. 17, 2025-- Dell Technologies (NYSE: DELL) is working with The University of Texas at Austin's TACC and NVIDIA to build Horizon, the largest academic supercomputer in the U.S. Horizon will serve as a platform for open science and scientific research, advancing progress and discovery for the next generation of researchers in areas like national security, healthcare and climate science.

Why it matters

Built on the Dell AI Factory with NVIDIA, Horizon will give researchers unprecedented HPC and AI capabilities to tackle complex problems - from climate change to medical advances to fundamental physics. The supercomputer will provide the performance and reliability researchers need to push the boundaries of discovery across disciplines.

Building a foundation for discovery with Dell Technologies and NVIDIA

At the core of Horizon are Dell Integrated Rack Scalable Systems (IRSS) featuring direct-liquid cooled Dell PowerEdge servers featuring the NVIDIA Grace Blackwell platform and NVIDAI Vera CPUs with 1 million CPU cores and 4,000 NVIDIA GPUs interconnected with high-performance NVIDIA Quantum-X800 InfiniBand networking. Dell IRSS is designed for the most intensive AI workloads, maximizing space and efficiency to meet TACC's high-density compute needs. This infrastructure will give thousands of researchers faster, more regular access to advanced computing, helping them find answers and deliver results sooner.

This high-performance system will feature 300 petaflops – a 10x improvement in simulation speed compared to TACC's Frontera system , currently the No.1 academic supercomputer in the U.S.

Once operational in 2026, Horizon will help scientists tackle problems that were previously out of reach and drive research that strengthens U.S. leadership in science, AI and innovation.

Perspectives

Arun Narayanan, senior vice president, Compute and Networking, Dell Technologies:

"Our long-standing collaboration with TACC reflects Dell Technologies' commitment to advancing research and innovation. Dell and TACC have been fueling discovery for decades including supercomputers Stampede and Frontera. Horizon, TACC's next-gen HPC cluster powered by Dell AI Infrastructure, will give researchers the tools they need to tackle some of the world's most complex challenges."

Dan Stanzione, Executive Director of TACC and Associate Vice President for Research at UT:

"Our collaboration with Dell and NVIDIA gives Horizon groundbreaking capabilities particularly in the use of AI for scientific innovation. Horizon represents the largest investment the National Science Foundation has made in computing infrastructure, so we expect even more ground-breaking achievements. It's a game-changer for science."

Additional resources

- Connect with Dell on X and LinkedIn
- TACC Unveils Frontera - Fastest Supercomputer in Academia
- Frontera - Texas Advanced Computing Center

About Dell Technologies

Dell Technologies (NYSE: DELL) helps organizations and individuals build their digital future and transform how they work, live and play. The company provides customers with the industry's broadest and most innovative technology and services portfolio for the AI era.

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