Dell Technologies Transforms the Edge with Project Frontier Software Platform

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Dell expands end-to-end edge portfolio, empowering customers with simpler, more secure edge deployments and global support

News summary

- Dell's Project Frontier will deliver an edge operations software platform to securely scale edge applications and infrastructure while supporting choice of software, IoT, operational and multicloud technologies
- Dell expands ISV partner ecosystem to simplify the deployment of software and applications at the manufacturing edge
- Dell PowerEdge XR4000, Dell's shortest depth rugged server, withstands harsh edge conditions and fits in tight spaces
- Dell Latitude 7230 Rugged Extreme Tablet offers enhanced performance and powerful connectivity for manufacturers, first responders and retailers at the edge

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Full story

Dell Technologies (NYSE:DELL) introduces Project Frontier, which will deliver an edge operations software platform, integrated with Dell's edge portfolio, for customers to more securely manage and orchestrate edge applications and infrastructure for deployments at global scale.

The complexities of edge operations—in locations from manufacturing floors and retail stores to remote wind turbines—are growing as more organizations want to manage and secure data at the source but have limited IT support to do it. According to a 2022 IDC survey, 42% of businesses say the most challenging aspect of edge deployments is putting together an entire edge solution[1]. With the amount of data generated growing nine times annually and expected to reach 221 exabytes by 2026[2], organizations need a simple and effective way to manage and secure the diverse ecosystem of edge technologies.

"We're seeing exponential growth in applications running at the edge, making edge the next frontier of business transformation—where devices, infrastructure and data come together to deliver real-time insights at scale," said Gil Shneorson, senior vice president of edge solutions, Dell Technologies. "With this growth, comes complexity. It's not feasible to have IT staff deployed at every edge location. Our decades of edge experience combined with our new solutions help customers simplify their edge and streamline their data to gain insights ranging from factory safety and the speed and precision of patient care in hospitals, while providing more choice in how they realize their edge and multicloud technologies."

Dell's Project Frontier to more securely scale edge operations for any enterprise use case

With the **Project Frontier** edge operations software platform, customers can expect:

- Their choice of software applications, IoT frameworks, operational technologies (OT), multicloud environments and future technologies supported by an open design that will consolidate existing and new enterprise edge use cases.
- Zero Trust-enabled security protection across edge applications, data and infrastructure, from design to deployment, backed by end-to-end supply chain security measures.
- Greater efficiency and reliability of end-to-end edge operations with centralized management, zero-touch deployment and secure device onboarding.
- Minimal need for IT expertise in the field with automation to streamline edge deployments and operations across potentially thousands of edge locations.
- Integration of edge compute and storage hardware with workloads for ease of serviceability and increased security.
- Global planning and support services across 170 countries to help design edge deployments and create a roadmap for scaling customers' edge infrastructure to meet new demand.

As an example, Dell Technologies is one of the world's leading technology manufacturers and manages one of the largest global supply chains. Dell plans to deploy the edge platform to deliver increased production line efficiencies by simplifying operations, securely connecting critical data from the production floor to IT infrastructure and enabling real-time reporting of automation data. Additionally, with the Dell Edge Design Program, Dell is collaborating with customers to help design and shape the development of Project Frontier to meet their specific needs.

"IDC sees a wide range of locations where modern edge workloads will be deployed, and it is critical that these environments are highly resilient and can operate with limited human intervention," said Jennifer Cooke, IDC Research Director for Edge Strategies. "Dell's efforts with its Project Frontier look to be a strong step forward in realizing an architecture to address these needs and help customers streamline their edge operations."

"Dell Technologies and Atos have long worked together to deliver more value to businesses by helping them realize the full potential of their data," said Arnaud Langer, Global Edge and IoT senior product director, Atos. "We look forward to collaborating on new edge innovations that can help organizations significantly simplify and secure their edge while improving business outcomes."

Innovations across Dell infrastructure and end user portfolio simplify edge deployments

As Project Frontier comes to life, Dell is expanding its current edge portfolio to help businesses scale and manage their edge deployments.

- Edge analytics and operations: Manufacturers can remove complexities and streamline how they deploy edge applications with an enhanced **Dell Validated Design for Manufacturing Edge**. The solution now includes new Dell-validated partner applications to support advanced edge use cases and improve factory processes and efficiencies, while reducing waste and raw materials usage for more sustainable operations. For example, Claroty provides asset discovery, network protection, threat detection and vulnerability and risk management for cyber-physical systems. Cognex machine vision helps improve manufacturing quality and performance by eliminating defects, verifying assembly and tracking information during the production process. Telit automates data collection and management from sensors, devices, machines and factories with its IoT platform. XMPro creates composable digital twins of factory operations to help manufacturers save time and materials during the factory operating process. Manufacturers can respond quickly to changes in demand and enable reconfigurable production lines with Dell's private 5G capability.
- Edge compute and analytics: The **Dell PowerEdge XR4000** is the shortest depth server in the Dell PowerEdge family at about the size of a shoebox. The XR4000 is 60% shorter than traditional data center servers, and its multiple mounting options allow it to be installed in a rack, on walls or ceilings, saving valuable floor space. The multi-node, 2U chassis server can survive unpredictable conditions like heat waves or falls. While small, the XR4000 is a high-performance server capable of supporting a wide range of edge workloads and is designed with Intel® Xeon® D processors with multi-operating system as well as optional GPU support. The XR4000 is available with the Dell Validated Design for Manufacturing Edge and powers new Dell VxRail rugged modular nodes, delivering high performance and scalability in high latency, low bandwidth locations.
- Edge data collection: Built to withstand the most demanding edge locations, the **Dell Latitude 7230 Rugged Extreme Tablet** is the industry's lightest[3], most powerful[4], 12" fully-rugged tablet. Designed to operate in extreme cold and hot environments, this tablet is rated for maximum protection against dust, dirt and water—ideal for first responders and outdoor environments. New Wi-Fi 6E[5] capability with dual-band support provides more reliable connectivity, 12th Gen Intel® Core™ processors deliver powerful performance, and optional integrated features, such as a barcode scanner, GPS module and smartcard reader, increase productivity in the field. The tablet is made to be viewed in the brightest, harshest lighting with the largest screen-area for a 12" fully-rugged, military-grade tablet[6].

Availability

- Project Frontier's edge software platform will be available in 2023.
- Dell Validated Design for Manufacturing Edge enhancements will be available globally in early 2023.
- Dell PowerEdge XR4000, also available with Dell OEM customizable options, will be available globally in December 2022.
- Dell Latitude 7230 Rugged Extreme Tablets will be available globally by end of 2022.

Additional resources

- Learn more about Project Frontier
- Read more details about Dell PowerEdge XR4000
- Find more details on the Dell Latitude 7230 Rugged Extreme Tablet
- Connect with Dell via Twitter and LinkedIn

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 data era.

[1] IDC, Survey Spotlight: Where Do Customers Need Help with Edge?, Doc # US48896522, February 2022.

[2] IDC, Global Datasphere 2022-2026 Forecast, Doc #US49018922, May 2022.

3 Based on Dell internal analysis, comparing the starting weight of Latitude 7230 Rugged Extreme, with the starting weight of competitor 12" fully-rugged tablets, using published data available as of April 2022.

[4] Based on Dell internal analysis of the combination of CPU storage, memory, graphics and WiFi standard specs on fully-rugged tablets, comparing the Dell Latitude 7230 Rugged Extreme Tablet to the Panasonic Toughbook 33 and Getac F110, using published data available as of April 2022.

[5] WiFi 6E compatible router required. Router requires a separate purchase. WiFi 6E connectivity is only available in select locations. Check availability with your service provider.

[6] Based on Dell internal analysis, comparing the screen-size and aspect-ratio of the Dell Latitude 7230 Rugged Extreme, with competitor 12" fully-rugged tablets, using published data available in April 2022.

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