

## Showcase

# Dell Technologies Supply Chain Advantage

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**ABSTRACT:** Global events have strained supply chains, especially in high-tech environments. The shortage of chips and other materials is impacting virtually all suppliers of technology solutions. Organizations embarking on and accelerating digital transformation initiatives are hampered by delivery delays, often waiting for up to 12 months for servers and networking and storage equipment. In contrast, Dell Technologies has been able to leverage its decades-long relationships and diversified supply chain to ensure faster delivery times, which are typically measured in weeks. As a result, organizations working with Dell can continue to innovate and deploy modern, green technology to power greenfield projects or perform major upgrades.

## Modern IT Environments

Organizations are rapidly evolving their IT environments to become more responsive, operationally efficient, and environmentally responsible. Research from TechTarget's Enterprise Strategy Group demonstrates that organizations continue to accelerate their digital transformation initiatives, with 61% of organizations describing their digital transformation initiatives as either in the beginning stages or in process and over one-third (36%) reporting mature initiatives.<sup>1</sup> While these transformation efforts encompass people, process, and technology components, there is a direct correlation between organizations spending more on technology and maturing their digital transformation initiatives.

These transformations include deploying modern applications and workloads across private data centers to one or more public clouds and, increasingly, to edge environments. Enterprise Strategy Group research illustrates that 86% of organizations are now using multiple public clouds, yet 62% of organizations stated that 50% or less of their applications are in the cloud.<sup>2</sup> Plus, almost all respondents (94%) to a separate research survey cited edge computing as a top-10 investment priority over the next 18-24 months relative to other aspects of IT.<sup>3</sup>

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<sup>1</sup> Source: Enterprise Strategy Group Research Report, [2023 Technology Spending Intentions Survey](#), November 2022.

<sup>2</sup> Source: Enterprise Strategy Group Complete Survey Results, [Distributed Cloud Series: Application Infrastructure Modernization Trends](#), March 2022.

<sup>3</sup> Source: Enterprise Strategy Group Research Report, [The State of Digital Ecosystems at the Edge](#), September 2022.

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**Figure 1. Distributed IT Environments**



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

While the edge represents a greenfield opportunity for most organizations, existing data centers have to be modernized and upgraded to keep pace with innovations occurring in public cloud environments. This means that organizations need to deploy the latest technology across the infrastructure stack (servers, network, storage) to power new initiatives or refresh older technology to provide enhanced experiences and energy efficiencies.

However, acquiring new technology in a timely manner is proving to be difficult. Global events have resulted in significant supply chain issues for chips and other components, delaying end user deliveries by as much as 12 months. Because of these extended timeframes, organizations are forced to put off new projects and postpone refresh cycles. This leaves operations teams scrambling to find new solutions and contend with aging equipment.

### Impact of Supply Chain Challenges

While supply chain issues are delaying shipments of servers and networking and storage equipment, the reality is that data growth continues unabated. Organizations continue to feed AI/ML engines and big data projects and collect data generated from sensors and cameras at the edge. Data growth is now almost as certain as death and taxes, and the prior generation of IT infrastructure struggles to keep pace. Organizations need to deploy technology capable of delivering increased bandwidth to handle the volume of traffic; deploy innovative SmartNIC DPU technology that offloads network, security, and storage functions to optimize server CPUs for application workloads; and take advantage of high-performance or high-capacity storage.

With some vendors citing up to 12-month supply chain delays, that extended time can have a real impact on the business, including:

- **Delays to new services and revenue-producing applications.** Organizations are constantly rolling out new applications or upgrading existing ones to better serve their customers. Unfortunately, the inability to build out new infrastructure to support these applications in a timely manner will also postpone revenue streams correlated to the length of the delay.
- **Potential to lose a competitive advantage with better performance or experience.** Organizations in retail understand that a customer’s digital experience is critical to attracting, retaining, and growing their business, and, for financial organizations, a fraction of a second difference in performance can mean millions of dollars of additional revenue. Therefore, any impact to delivery schedules can impact customer experience and performance.

- **Additional costs related to extending maintenance and support costs on existing equipment.** If organizations can't deploy new equipment, they have to extend maintenance contracts until the new equipment arrives, which is an unplanned additional expense that impacts a business's bottom line. The worst case would be that equipment is at end-of-life and extended support is no longer available.
- **Potential to experience a greater number of problems and failures from aging equipment.** In addition to the extra maintenance costs, older equipment can be more prone to failure, potentially resulting in downtime, which not only impacts customers and revenue but also brand reputation.
- **Inability to meet stated sustainability or environmental goals with reduced power, cooling, or space budgets.** Organizations are deeply committed to achieving their sustainability and environmental goals, and IT technologies can be a major contributor to an organization's carbon footprint. Newer technologies are all focused on delivering more performance with reduced power and cooling costs in a compact footprint.
- **Additional interoperability testing times.** To minimize the impact of supply chain delays, organizations may buy IT infrastructure based solely on delivery time. However, leveraging multiple vendors may incur interoperability testing delays on the back end. While technology solutions built to adhere to certain standards should be interoperable, that is not always the case, and operations teams are typically not willing to bet their jobs on the outcome of deploying new tech into production without first performing some interoperability testing. Bringing in new vendors could result in operations teams conducting additional interoperability testing for new servers and network and storage stacks.

How do organizations overcome these challenges to ensure initiatives stay on track to create both technology greenfield and modernization/refresh activity to meet objectives?

## Dell Technologies Leverages Supply Chain Experience for Timely Delivery

With a rich heritage in the PC market going back to 1984, Dell Technologies is no stranger to supply chain management. As the company has grown and expanded, it has built out robust supply chain models, management, and processes to deal with virtually any potential issue and allow it to stay ahead of the curve. As part of this methodology, Dell was quick to react to the global supply chain crisis and built out a highly diversified global supply chain that included locations in Malaysia and Ireland. Plus, it was also able to leverage its longstanding relationships with Intel and Broadcom to ensure it received its share of the existing supply.

As a result, Dell Technologies is able to deliver a full stack of solutions, servers, networking, and storage in a timely fashion to ensure organizations can refresh legacy technology or build out greenfield environments in their data centers or edge locations. In fact, Dell claims it has the ability to deliver solutions in as few as six weeks, while other vendors may have as long as a 12-month delay. Furthermore, all Dell Technologies solutions go through rigorous interoperability testing to ensure a seamless experience across a full IT infrastructure stack, including SmartNICs and the Enterprise SONiC Distribution by Dell Technologies (Software for Open Networking In the Cloud).

This truncated delivery time provides a significant advantage for organizations in both greenfield deployments and in modernization or refresh cycles (see Figure 2). For greenfield environments, organizations can roll out new applications or services faster, take advantage of higher performance platforms, and, ultimately, drive revenue sooner for the business. For organizations trying to modernize or performing a technology refresh, faster technology deployments mean they can reduce maintenance costs; mitigate potential hardware problems; lower power and cooling costs; and meet sustainability, or environmental, social, and governance (ESG) goals on time or ahead of schedule.

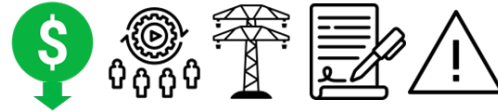
**Figure 2. Business Benefits from Shortened Delivery Timeframes**

**Greenfield deployments/  
New business opportunities**



- Faster deployment of new products
- Faster scaling for better performance
- Earlier generation of revenue streams

**Product refreshes/  
Modernization efforts**

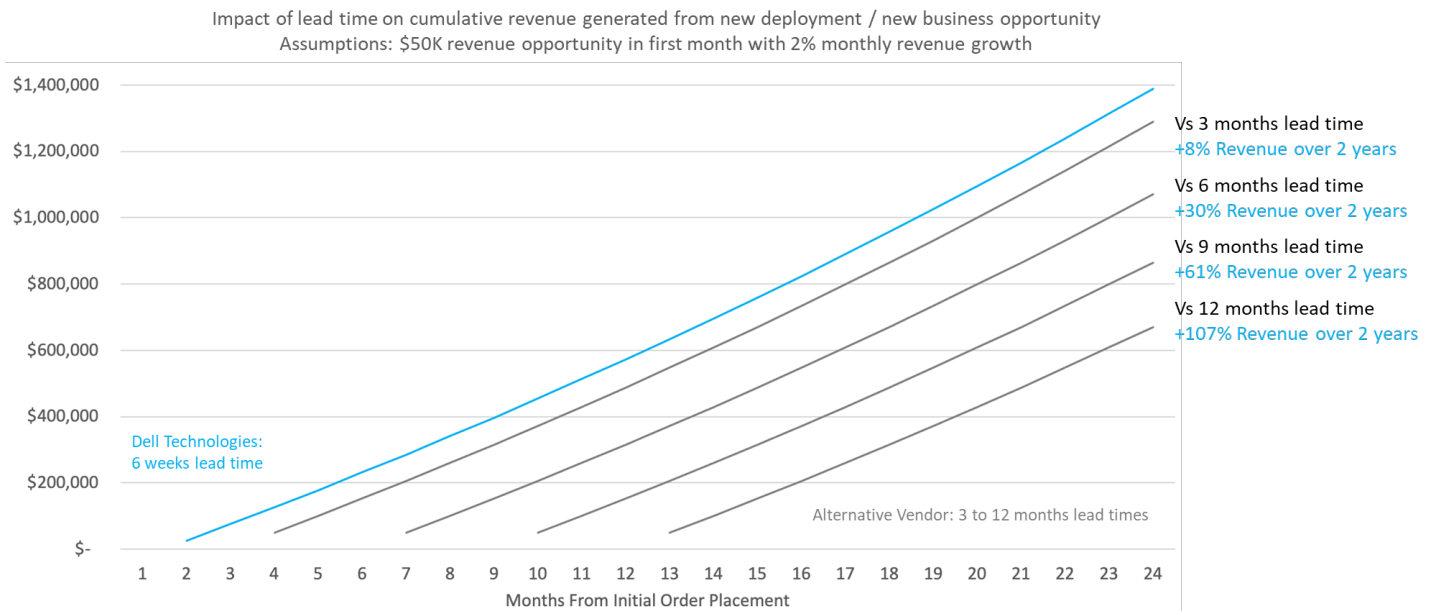


- Earlier modernization of infrastructure
- Reduced operational costs
- Reduced footprint and power/cooling costs
- Reduced extended maintenance costs
- Reduction in hardware-related issues

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

For example, if we look at just one aspect of generating more revenue—the ability to deploy a new application or service faster—Figure 3 illustrates how a shorter delivery time can impact revenue. In fact, for a single application, deploying a Dell infrastructure stack with an accelerated delivery schedule could deliver a business up to 107% more revenue versus using equipment from a vendor with a twelve-month lead time.

**Figure 3. Delivery Time Impact on Revenue**



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

**The Bigger Truth**

Organizations need to continue to innovate, maturing digital transformation initiatives and deploying new technology to drive growth and revenue. In addition, new technology is more performant, while also providing more power and, often, space efficiency. This enables organizations to transform and achieve sustainability or ESG commitments.

Global supply chain issues have delayed many businesses' key initiatives and technology refreshes. However, that doesn't have to be the case. Dell Technologies is able to leverage its supply chain to deliver in weeks, not months, and help organizations to stay on track, while building out both greenfield environments at the edge or in data centers and modernizing existing data centers to become more cloud-like. Dell even offers its Enterprise SONiC distribution at both the data center and edge, enabling operations teams to work more efficiently.

When tasked with building out new environments at the edge or in data centers or even refreshing existing ones, and faced with lengthy delivery times, organizations should consider how the Dell Technologies supply chain advantage can benefit their businesses.

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