

The Trusted Data Center and Storage Infrastructure



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Trusted Data Center Storage Infrastructure

Midmarket firms face many of the same data center storage infrastructure challenges as their enterprise counterparts but lack the same resources to address them. Capacity, downtime, data theft, and regulatory non-compliance all put a drag on these organizations as they drive for continuous innovation in an increasingly competitive landscape. They must ensure valuable data and IT assets are available, durable, scalable, and protected at all times. How can midmarket organizations succeed in the face of these challenging market dynamics?

Organizations enjoying the greatest success demonstrate a clear organizational commitment to prioritizing trusted data center infrastructure, including storage infrastructure. Figure 1 illustrates the relationship between trusted data center technologies, improved operational outcomes, and, ultimately, business success.

Relationship Between Trusted Data Center Best Practices and Technology and Business Results.

Data center security and trusted best practices can be measured in terms of:



More frequent infrastructure refreshes



Organizational commitment to secure infrastructure technology



Success implementing secure infrastructure technologies

Data center security and trusted leads to better technology outcomes like:



Fewer outages



Faster service and data recoveries



Less data loss, security incidents



Better ability to meet compliance mandates

Ultimately, technology and security performance enables greater business success, including:



Faster time to market



Improved customer satisfaction



Increased market share



Faster revenue growth

Source: Enterprise Strategy Group



The three pillars of operating a trusted data center are:



1. Regularly refreshing and retiring data center infrastructure



2. Committing to deploying trusted technologies



3. Implementing those technologies

Trusted data center storage technologies include modern data security features like encryption, embedded firmware security capabilities, as well as data protection practices like backup frequency and replication.

Mitigating risks that threaten your data

Midmarket organizations need to prioritize improving the security and dependability of their IT environments, including storage infrastructure. By minimizing the negative business impact of storage disruptions, such as a security breach or data loss, midmarket firms improve their ability to compete and succeed in their markets.

Storage services are essential to business operations and any disruption in those services can have detrimental effects.

- **Cybersecurity risks have the potential to hurt an organization relative to competitors**
- **Outages can disrupt customer service**
- **Data loss saps productivity, and compliance violations often have direct financial consequences**

Part of a security strategy should include planning for refreshing and retiring infrastructures. Newer infrastructure generally includes a host of security and data protection capabilities that older solutions may lack. In short, organizations investing more in infrastructure refreshes are in a better position to drive improved outcomes.



Organizations investing more in infrastructure refreshes are in a **better position to drive improved outcomes.**

In addition to refreshing infrastructure, organizations with the greatest success commit to several other storage infrastructure best practices, including:

- **Encrypting sensitive data to protect it from theft or corruption**
- **Investing in infrastructure solutions with market-leading security capabilities built into their firmware**
- **Replicating sensitive data to secondary storage systems to maximize uptime and recoverability.**

Successful organizations operate more reliable, resilient, and hard-to-compromise environments. As a group, they experience quantifiably fewer security incidents resulting in data loss or compromise, fewer

instances of non-compliance with either internal governance or regulatory mandates and fewer outages, which they recover from faster. In turn, high technology performance helps businesses beat competitors to market, improve customer satisfaction and grow both market share and revenue.

Another driver of IT and business risk that is a focus of top performing organizations is the commitment to compliance. Compliance requirements, both internal and regulatory, can be stringent. For resource-constrained midmarket organizations, an efficient method of ensuring compliance is critical. At the same time, the methodologies employed must be effective, as many midmarket organizations are in a poor position to absorb the financial penalties associated with regulatory non-compliance.

Ensuring availability of storage infrastructure

Outages in storage availability can stem from a variety of causes. A natural disaster can knock a location offline, human error can cause a service outage or a system — whether a server, storage, or networking component — can simply fail. IT organizations operating newer infrastructure and with greater investment in high security and high reliability technology solutions enjoy superior results.

Availability of storage infrastructure is essential to both ongoing operations and continual development and delivery of new business services. A storage outage has an immediate and obvious impact on customers and others who depend on those services. Less obvious is the impact on development teams. Software development practices have largely moved from monolithic, waterfall methodologies to agile, continuous development and delivery models. The loss of storage services can halt development efforts, risk the loss of development work, and require significant recovery time.



Organizations need to be **constantly securing their customers' data.**



Improving business agility with Trusted Data Center storage

Organizations that focus on trusted data center technology, including storage services, find they are better positioned to innovate, deliver new products, and meet customer expectations. And those expectations are becoming more pronounced as consumers and other businesses take advantage of constantly available digital services. This increasing demand for constant access to business services increases the pressure to deliver both highly available and highly scalable applications. Organizations that can operate these kinds of applications are in a better position to compete and grow.

High availability and scalability alone are not enough to meet the needs of today's digital services. Organizations need to be constantly securing their customers' data. Data breaches are too common and while consumers may come to expect some security leaks, these attacks carry financial and reputational costs. Mid-market businesses can leverage trusted data center storage infrastructure to mitigate the risk of data breaches, ransomware, and other disruptive cybersecurity threats.



Organizations should work toward improving their adherence to best practices outlined here, including:



Frequently refreshing server and storage infrastructure and use solutions with more sophisticated security and data protection capabilities.




Prioritize server solutions with sophisticated “built-in” security capabilities. While newer servers will inherently tend to be more secure than older servers, there are specific security capabilities to focus on:

- The ability to check that all system updates are cryptographically authenticated
- Automatic lockdown of configuration settings
- The ability to perform complete system erasures



Ensuring implementation of these best practices by committing the financial and staff resources needed to effectively implement the best practices.



No organization can ignore the security threats without the potential for substantial adverse impacts. The best practices for the Trusted Data Center storage infrastructure model outline the same best practices that enterprise-scale organizations use to effectively meet storage, security, compliance, and operations requirements.

[Learn more about how Dell Technologies can help advance your Trusted Data Center Maturity.](#)

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