The Trusted Data Center and Hyperconverged Infrastructure: Best Practices and Business Results for Mid-Market Organizations

Insights from Dell Technologies & Intel Corporation’s Global Survey of Mid-Market IT Leaders

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Many mid-market organizations struggle to deliver the data center security and reliability demanded in this highly competitive segment of the market. Both line-of-business and IT stakeholders acknowledge room to improve:

By prioritizing the security and dependability of their IT environments above all else, mid-market organizations with trusted data centers experience very real and quantifiable business and technology outcomes that give them the edge and agility to win in today's highly competitive marketplace.

This eBook is grounded in peer-based primary market research and is intended to highlight the behaviors and performance of organizations leading the market in data center trust specifically as it relates to their use of hyperconverged infrastructure (HCI): a software-defined platform that combines compute, storage, and networking in a single appliance in which a cluster of multiple appliances forms a shared resource pool and enables high availability, workload mobility, and scaling of performance and capacity.

Data center risk has the potential to hurt organizations relative to competitors:

- Outages can disrupt customer service, leading to customer churn or negative reviews.
- Downtime also has direct financial implications. ESG's research shows the average hourly cost of downtime for surveyed firms is between $30,000 (median) and $38,000 (mean).
- Compliance violations often have direct financial consequences. For example, a GDPR violation could result in a fine of up to 4% of an organization's annual revenue.

Why Does Leading in Data Center Trust Matter?

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38% of line-of-business executives have serious concerns about IT's security capabilities and controls. This is the most frequently cited issue line-of-business respondents have with IT.

46% of IT practitioners feel they have a problematic cybersecurity skills shortage. This is the skills shortfall most frequently cited by IT respondents.

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What It Means to Be a Trusted Data Center Leader

Dell Technologies, Intel Corporation, and ESG recently completed a survey of 1,650 IT executives and strategists at organizations with less than 1,000 employees. The research showed that just 7% of mid-market organizations could be categorized as trusted data center Leaders that were in alignment with a broad set of best practices spanning different aspects of infrastructure, security, and data protection. On the other end of the spectrum, 33% of mid-market organizations were categorized as trusted data center Laggards, in alignment with half or less of the best practices assessed.

Trusted Data Center Best Practices:

Refresh/retire data center infrastructure regularly

- Average server age is <3 years at all Leader organizations
- Average storage system age is <3 years at all Leader organizations

Believe strongly that trusted technologies matter

- All Leader organizations believe it is important to encrypt sensitive data
- All Leader organizations believe “built in” secure infrastructure is important

Act on beliefs by using trusted technologies

- All Leader organizations actually encrypt sensitive data
- All Leader organizations replicate most/all sensitive data to secondary systems

Download the full report for more information
Capitalizing on the Promise of HCI

Leaders were more likely to report benefits than Laggards:

**SIMPLIFIED MANAGEMENT**
Leaders are 1.3X more likely than Laggards to have simplified infrastructure management with HCI use.

**FASTER INFRASTRUCTURE DEPLOYMENT**
Leaders are 1.2X more likely than Laggards to have improved their infrastructure provisioning efficiency via HCI deployment.

**REDUCTION IN INTEROPERABILITY ISSUES**
Leaders are 1.5X more likely to have reduced interoperability issues thanks to HCI use.

The magnitude of benefits associated with HCI also differs between Leaders and Laggards. Leaders are more than 2X more likely than Laggards to say HCI has saved them more than 20 person-hours per week when it comes to infrastructure deployment and management.

For mid-market firms with just a handful of IT FTEs stretched far too thin, these productivity savings can be a game changer.
How to Become a Leader: Adopt HCI For On-Premises Applications

Leaders utilize HCI to optimize on-premises environments. HCI solutions are intrinsically easier to deploy, scale, and manage compared to separately integrated components.

In general, Leaders on the Trusted Data Center maturity curve leverage HCI at a higher rate, and migrate a greater percentage of their on-premises applications to HCI solutions.

**HCI SOLUTIONS DEPLOYED IN DATA CENTERS**

Leaders are 2.4X more likely than Laggards to use HCI in production while Laggards are more likely to be evaluating the technology or conducting proofs of concept.

**PERCENTAGE OF APPLICATIONS DEPLOYED ON HCI**

Among organizations using HCI today, Leaders are 2.1X more likely than Laggards to deploy more than 30% of their on-premises applications on HCI. Based on the estimated average usage, Leaders run 49% more applications on HCI compared to Laggards.
As HCI deployment has become more mainstream, organizations are beginning to realize its impact on IT infrastructure’s efficiency and reliability. With HCI in production, organizations can make their IT infrastructure more robust and improve business and technology KPIs.

**FTE Savings = Recouped Time to Focus on Protecting Mission-Critical Data**

Through HCI adoption, organizations achieve cost savings related to employee efficiency and improvement in overall application and system uptime.

**FTE SAVINGS**

Users of HCI save, on average, 12.3 person-hours per week related to infrastructure deployment and management.

Labor savings on infrastructure deployment and management enable organizations to redeploy their staff toward more important tasks, such as backing up critical data. This ensures organizations have the data necessary to resume business activities in case of an unforeseen outage.

**MORE TIME SPENT ON KEEPING MISSION-CRITICAL DATA SAFE**

Users of HCI were 2.6X more likely than non-HCI users to continuously back up their mission-critical data.
Organizations that leverage HCI benefit from simplified management and fewer interoperability issues. These organizations are further able to differentiate themselves from the rest of the market by utilizing their FTE savings and redeploying their staff to focus on transformational goals. The results of these actions are apparent when looking at business agility KPIs:

Organizations using HCI are 3X more likely to be successful at developing and launching new products and services relative to non-HCI users.

Top-Line Revenue Growth and ROI

Ultimately, the benefits of having HCI in production are visible in a company’s financial performance. On average, organizations with HCI in production expect to increase their revenue by 21% year-over-year for the next few years. This compares to the 12% revenue growth expected by organizations not utilizing HCI.

ESG also asked respondents if investments in infrastructure technologies to maximize uptime and availability and minimize security risk have met or exceeded ROI forecasts.

Organizations using HCI were 2.6X more likely than those that do not to report the ROI for these investments has exceeded forecasts.
Quantifying the Value of HCI Deployment

Due, in part, to the better IT efficiency and stability enabled by the technology, Leaders that have HCI deployed experience fewer application outages that are resolved faster. Combining this data with the average cost of downtime reported, Leaders using HCI save as much as $16.5M/year in avoided downtime compared to Laggards that do not use HCI.

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<th>OUTAGES ACROSS ALL APPS PER MONTH</th>
<th>MONTHS</th>
<th>HOURS PER OUTAGE</th>
<th>COST PER HOUR</th>
<th>TOTAL ANNUAL COST OF DOWNTIME</th>
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54% reduction in downtime cost
Investments in infrastructure technologies, including HCI, are made in part to help organizations maximize uptime and availability and minimize security risk. But do Leaders, who make bigger bets on trusted technologies, get more bang for their buck?

92% of Leaders report that investments in infrastructure technologies to maximize uptime and availability and minimize security risk have met or exceeded ROI forecasts.

Leaders were also 1.6X more likely than Laggards to report ROI for these investments has exceeded forecasts.

Leaders are 2.2X more likely than Laggards to feel their investments in infrastructure technologies to maximize uptime and availability and minimize security risk have greatly reduced organizational risk.
Data in this eBook comes from a comprehensive online survey of IT decision makers. The survey was fielded between June 13, 2019 and July 8, 2019. To qualify for this survey, respondents were required to be involved in the decision-making process for data center technology purchases at their organization. Moreover, they must have reported a high degree of familiarity with their organization’s risk reduction strategies and priorities. Finally, the research was exclusive to the mid-market: All respondents must have been employed at organizations with between 100 and 999 total employees.

After filtering out unqualified respondents, removing duplicate responses, and screening the remaining completed responses (on several criteria) for data integrity, a final sample of 1,650 respondents remained.

These figures detail the firmographics of the respondent base, including respondents’ country of residence, respondents’ responsibility level, organizations’ total number of employees, and organization industry.
About Dell Technologies:

With the broadest portfolio of trusted infrastructure and data protection solutions, Dell EMC Technologies provides real expertise for end-to-end security, enabling mid-market businesses to adopt transformative technologies to maximize performance, compete, and grow.

About Intel®:

Today’s organizations face strategic challenges as they modernize data centers and servers. Intel® is driving platform innovation and next-generation capabilities across every infrastructure domain—from compute to storage to network to memory to accelerator technologies. With Intel® architecture-based platforms, you have a clear path forward for the data-centric era.