

DATA PROTECTION IN A MULTI-CLOUD WORLD

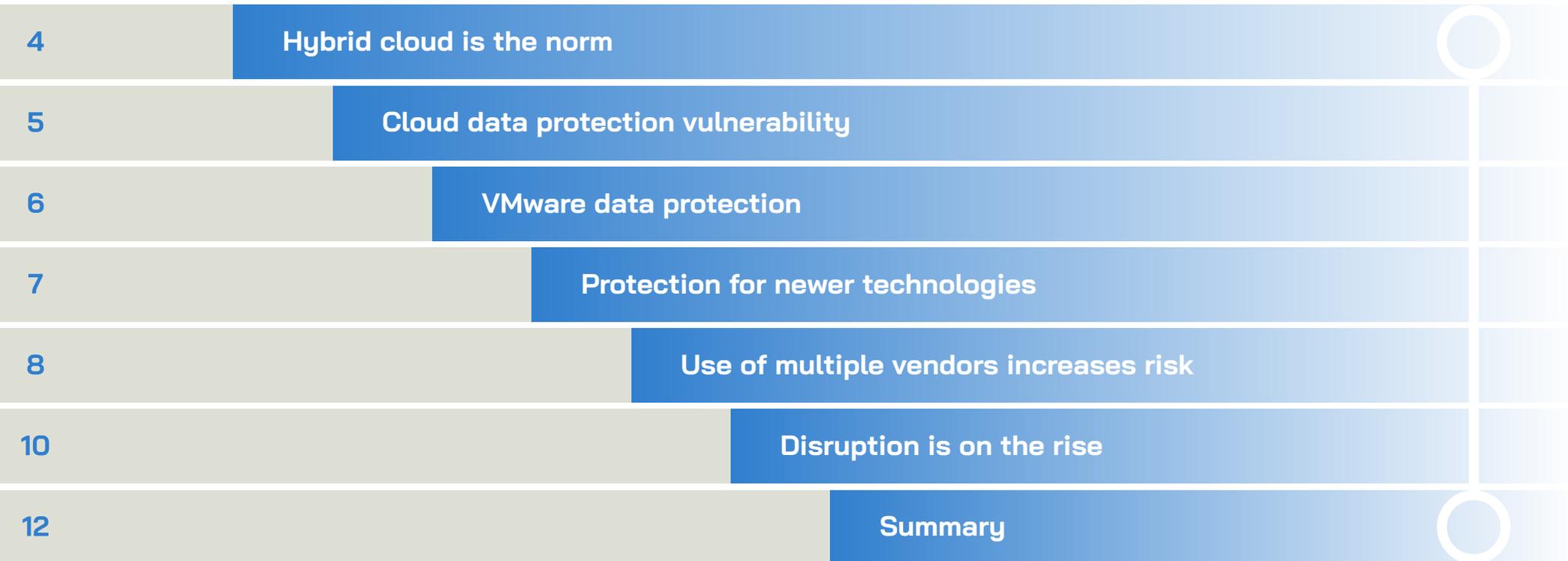
GLOBAL DATA PROTECTION INDEX 2020 SNAPSHOT



Data is the new currency and the lifeblood of business.

Protecting this valuable asset requires proven and modern data protection solutions that simplify the protection of data across edge, core and cloud environments.

This eBook presents findings from Vanson Bourne's [Global Data Protection Index 2020 Snapshot](#) study, a survey of 1,000 IT decision makers (ITDMs) globally



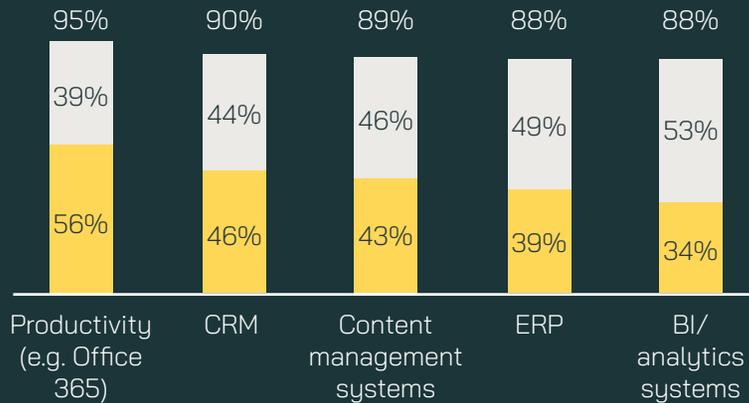
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Hybrid cloud is the norm

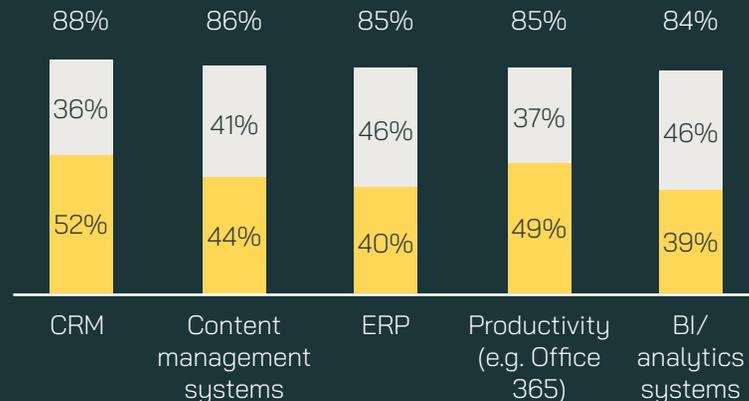
Applications...

Currently running (yellow) | Planned to run (grey)

...in public cloud



...in private cloud



Most organizations are deploying mission-critical workloads such as ERP, office productivity apps, business intelligence and content management systems into public and private clouds. Organizations want the flexibility to deploy applications to the right cloud at the right time based on the needs of the business.

Consequently, efficient and simplified [cloud data mobility](#) is a critically important capability for any data protection strategy. Many organizations, for example, have chosen to [repatriate mission-critical workloads](#) from public cloud to private cloud environments to ensure compliance, reduce costs and enhance security.

Cloud data protection vulnerability

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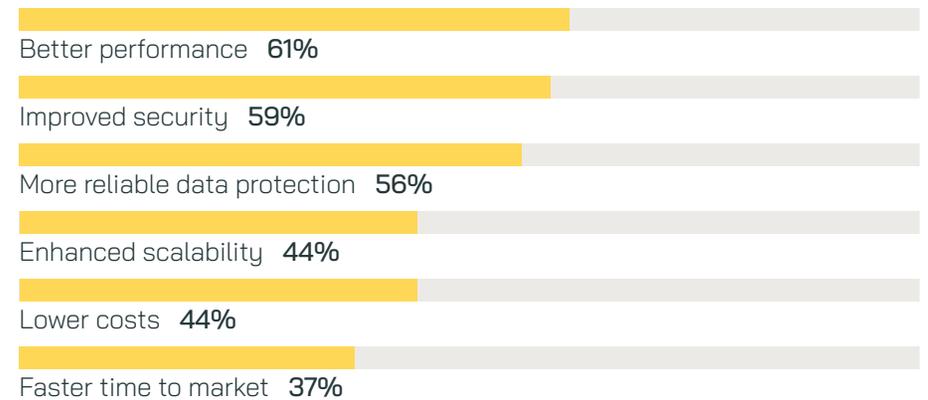
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While most organizations cite more reliable data protection as one of the primary benefits of deploying new applications into the public cloud, 63% of the respondents that rely on their cloud service provider to protect their applications do not actually have separate contracts to protect all their workloads, leaving them potentially vulnerable to the risk of downtime and data loss.

This issue is particularly concerning for medium-sized businesses, as 70% of respondents from these organizations reported not having separate contracts with their cloud service provider to protect all their workloads.

What's driving the use of public cloud for new apps?



63% overall say that their organization does not have a separate contract with their cloud service provider(s) for the protection of all application workloads

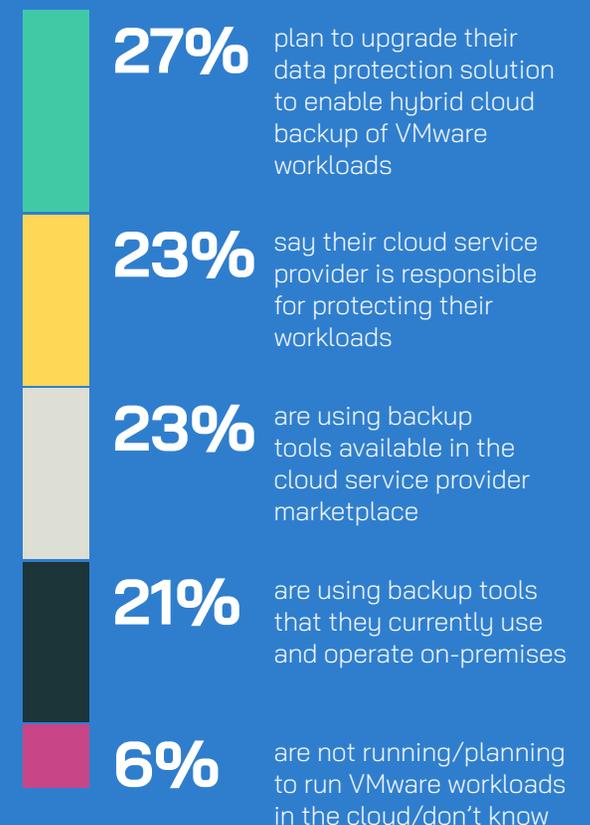
VMware data protection

This hybrid cloud approach for deploying applications across public and private cloud environments is largely predicated on VMware virtualized infrastructure. But there is no clear standout in terms of how organizations are protecting VMware workloads in the cloud. Just over a quarter (27%) admit they would need to upgrade their data protection solution to enable hybrid cloud backups. A similar proportion (23%) utilize backup tools available in the cloud service provider marketplace or tools that they currently have and operate on-premises (21%).

Interestingly, around one in four believe that their cloud service providers are responsible for protecting such workloads – [but is this really the case?](#) Many organizations might be leaving themselves unknowingly exposed by making this assumption.

From physical and virtualized applications, to containers, cloud-native apps and SaaS, data protection solutions from Dell Technologies give organizations the flexibility to protect mission-critical workloads wherever they reside, from edge to core to cloud, while making it easier for organizations to move and migrate data to enhance DR readiness, ensure compliance, enhance security and lower costs.

Protecting VMware workloads



Protection for newer technologies

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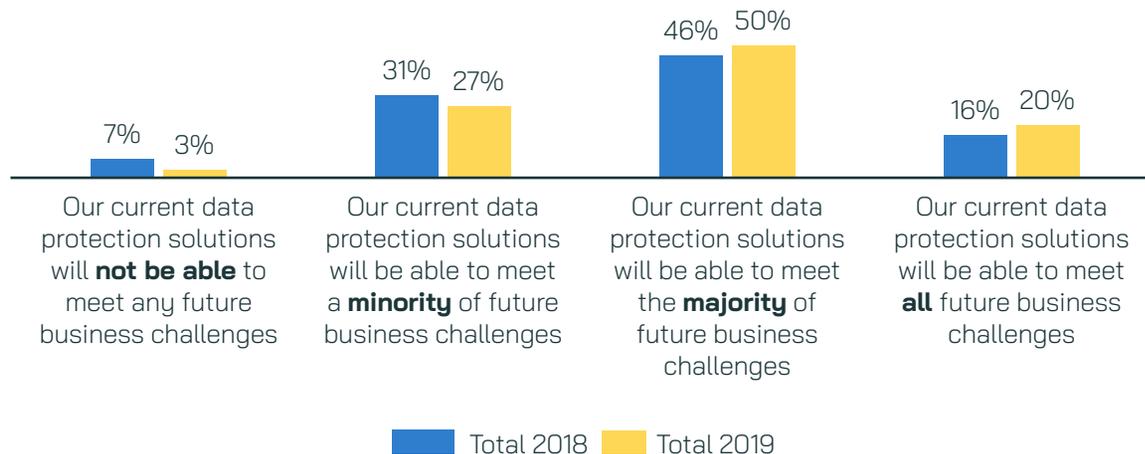
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In addition to ongoing concerns with protecting data on existing application infrastructure, the vast majority (80%) of survey respondents believe their current data protection technologies will not be capable of meeting all their future business challenges.

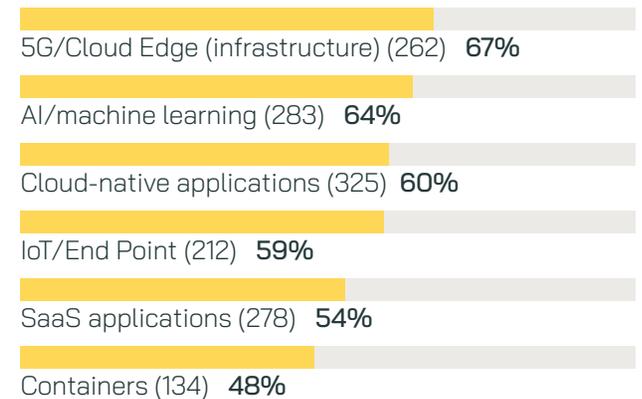
And around half or more are struggling to find data protection solutions for technologies such as artificial intelligence and machine learning platforms (64%), cloud-native applications (60%), SaaS applications (54%) and containers (48%).

Dell Technologies provides proven and modern cloud data protection solutions that deliver the innovation organizations need to protect traditional workloads, such as Oracle, SQL, SAP, Exchange and NAS file services, as well as modern workloads, such as Kubernetes containers, Cloudera, Hadoop, Mongo DB and O365.

Confidence in existing data protection solutions



Struggles finding data protection for:



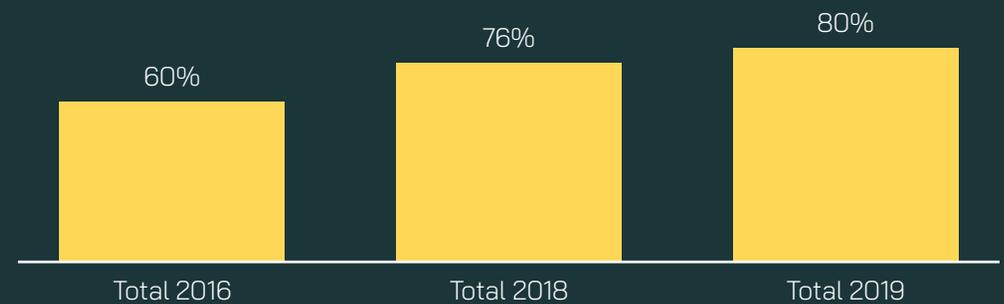
Note: base size in brackets

Use of multiple vendors increases risk

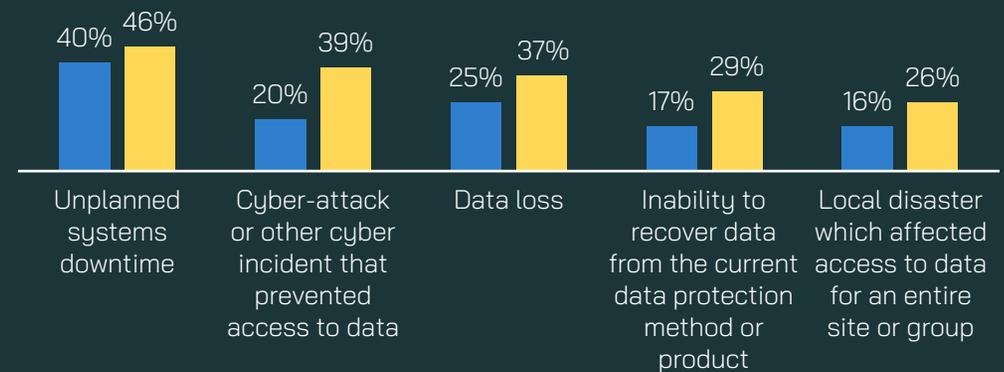
To shore up their data protection gaps, 80% of organizations are resorting to deploying data protection solutions from multiple vendors – up 20 percentage points since 2016.

Respondents who reported using more than one data protection vendor are found to be nearly 2x more vulnerable to a cyber incident that prevented access to their data (39% vs. 20%) and over 1.7x more likely to be unable to recover data from their current data protection solution in the case of a disruptive event (29% vs. 17%).

Use more than one data protection vendor



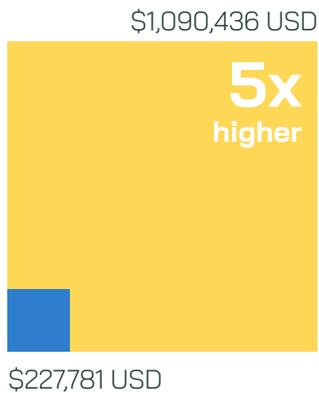
Disruption suffered in the last 12 months



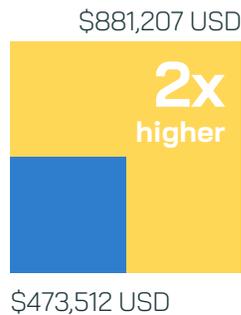
Using single data protection vendor
Using multiple data protection vendors

Furthermore, the costs of disruption are significantly higher for those organizations using multiple data protection vendors over those using a single vendor – nearly 5x higher data loss costs and nearly 2x higher downtime related costs.

Estimated total cost of data loss in the last 12 months



Estimated total cost of downtime in the last 12 months



■ Using multiple data protection vendors
■ Using single data protection vendor

Organizations can simplify IT, mitigate risk, lower costs and enhance the protection and security of their mission-critical workloads and data assets by leveraging a portfolio of proven and modern [cloud data protection solutions](#) from Dell Technologies.

These solutions support physical and virtualized workloads as well as Kubernetes containers, cloud-native applications and SaaS, to give organizations end-to-end data protection and cyber resiliency across their edge, core and cloud environments; all from a single data protection solution provider.

Disruption is on the rise

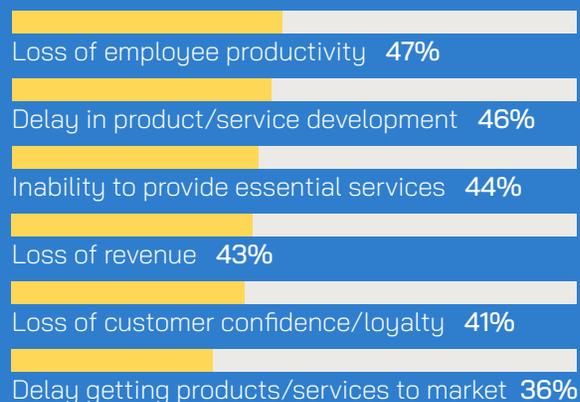
82% of organizations reported experiencing disruption (such as downtime or data loss) in the past 12 months – up from 76% in 2018, resulting in lost revenue, lost employee productivity, delays in product and service delivery and a loss in customer confidence.

Respondents lack confidence about their organization in relation to the following: recovering data successfully from cyber-attacks (69%), fully recovering systems data from a data loss incident (64%), meeting compliance with regional data governance regulations (62%), meeting backup and recovery service level objectives (62%).

These worrisome trends are contributing to the lack of confidence organizations have in the ability of their data protection solutions to consistently protect and rapidly recover their critical workloads and data across their edge, core and cloud environments. In fact, two thirds (68%) of survey respondents expressed concern that they will experience downtime or data loss over the next 12 months.

Maintaining normal business operations, protecting sensitive data and preserving corporate reputations in the face of increasingly sophisticated cyber threats require modern strategies and solutions. By protecting these assets in an isolated, secure and encrypted digital vault, [Dell EMC Cyber Recovery Solutions](#) help ensure the availability, integrity and confidentiality of sensitive data assets.

Consequences of data loss and downtime in the last 12 months



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But it's not just unplanned downtime that is impacting business readiness; with data volumes surging nearly 40% over the last year, it is taking organizations longer to recover mission-critical applications following an outage. For example, in 2019 it took survey respondents 8 hours on average to recover from unexpected downtime to critical business systems, compared to 7 hours in 2018 and 2016 – the previous two years in which we conducted the survey.

Alarming, the average cost of downtime surged by 54% from 2018 to 2019, resulting in an estimated total cost of \$810,018 USD per year, on average, up from \$526,845 USD in 2018.

Dell EMC cloud data protection solutions mitigate the risk of application downtime and data loss by providing the global scalability organizations need to efficiently protect and rapidly recover mission-critical workloads across edge, core and cloud environments.

By harnessing the growing volumes of data generated by physical, virtual and containerized workloads, Dell EMC cloud data protection solutions enable organizations to leverage their data by providing advanced data management capabilities that can be used to support a myriad of use cases such as analytics, application development and testing, proactive DR testing and more.

8 hours

is the average recovery time should an unexpected event cause downtime to critical applications

Average estimated total cost in USD of downtime in the last 12 months

\$810,018

in 2019

\$526,845

in 2018

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Across businesses of all sizes, data protection is becoming increasingly challenging. The exponential growth of data, the distribution of mission-critical workloads across edge, core and cloud environments and the need to protect newer workloads such as containers, cloud-native and SaaS applications, is bringing many data protection technologies to their breaking point and putting many businesses at risk.

Disruptive events are on the rise for most organizations, despite their investing in data protection solutions from multiple vendors; resulting in lost revenue, lost business opportunity and increased risk. Unfortunately, most organizations are anticipating that this trend will continue, as most expressed concerns that they will experience disruption over the next 12 months. Furthermore, most lack the confidence that their data protection solutions are equipped to help them meet the needs of their future business challenges.

Clearly a new approach is needed whereby organizations can attain comprehensive data protection for all workloads – physical, virtual, cloud-native, containers, etc. – whether they be deployed in edge locations, core data center environments, or across multiple public clouds.

As importantly, these solutions need to provide global scale capabilities to deliver the ever-increasing levels of performance, efficiency and resource growth that can protect applications and data everywhere, and safeguard data from cyber threats.

Organizations may continue to feel the sting of business disruption until they begin shoring up the gaps in their data protection strategy. In addition to revenue loss and lost opportunity costs, the lack of a cohesive data protection strategy could impact the ability for organizations to advance their digitization initiatives and ultimately impact their ability to compete in the digital economy.





Dell EMC proven and modern cloud data protection solutions simplify IT by enabling organizations to protect mission-critical workloads as they grow across edge, core and cloud environments by delivering increased levels of IT automation, integrated security and elastic scalability while enhancing efficiencies by up to 33%¹ over competitive offerings.

These solutions provide rapid protection and recovery capabilities across a broad range of traditional and modern workloads – physical servers, virtual machines, Kubernetes containers, cloud-native applications – enabling organizations to mitigate the risks of unplanned downtime, data loss events and cyber security threats.

Through direct integration with VMware, Dell EMC cloud data protection solutions deliver a consistent management experience on-premises and in the cloud, enabling IT organizations to spend less time on data protection management and more time focusing on strategic initiatives, such as repurposing secondary data for application development and testing, data analytics and proactive DR testing.

By delivering cloud data protection at global scale, Dell EMC cloud data protection solutions deliver the elastic performance and capacity needed to ensure that mission-critical workloads remain protected and secure as they grow across public cloud environments such as AWS, Azure, GCP and IBM Cloud, while dramatically lowering the cost of protection in the cloud.

¹ Source: ESG Technical Review, Efficiently Protect Virtual Environments with Integrated Data Protection Appliances from Dell EMC, January 2020.



Dell Technologies 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.



Vanson Bourne is an independent specialist in market research for the technology sector. Our reputation for robust and credible research-based analysis, is founded upon rigorous research principles and our ability to seek the opinions of senior decision makers across technical and business functions, in all business sectors and all major markets.

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