The Business Value of VMware Live Recovery

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Executive Summary

With nearly every organization regarding data as its lifeblood or crown jewels, taking chances on data loss or availability is simply an unacceptable risk. The consequences can be disruptive and costly at best and existential at worst. Organizations face a myriad of data threats, from accidental deletion, hardware or software failure, and datacenter disruptions (i.e., power outages, fires, and broken pipes) to natural disasters. While backup/recovery (B/R) products can recover from lesser data loss events, full-fledged disaster recovery (DR) responses are needed for major events. Although B/R is the foundation of DR, the scale and complexity of large-scale recoveries — regardless of cause — require specialized technology such as recovery orchestrators and process runbooks and high-volume rapid data recovery.

With this risk in the minds of IT leaders, it's no surprise that disaster recovery as a service (DRaaS) is one of the fastest-growing segments of the data protection market. According to IDC forecasts, DRaaS will grow from $6.5 billion in 2023 to $11.4 billion in 2026 (18.3% CAGR). This represents customers moving from dedicated on-premises DR datacenters as well as organizations establishing DR for the first time.

In 2022, IDC began forecasting the emerging cyber-recovery as a service market. We expect this market to grow from $39.2 million in 2023 to $497.7 million in 2027, representing a 116% CAGR. CRaaS has key differentiators from DRaaS, such as the need for anomaly detection, forensics, curated recovery, and clean room recovery. Because of these factors, CRaaS has a much higher consulting services factor than other DPaaS market segments and also has the highest estimated gross margin.

VMware Live Recovery is VMware's cloud-based cyber and disaster recovery service. The platform is configured as a SaaS solution and offers cloud economics designed to minimize disaster recovery costs. VMware Live Recovery protects virtual machines (VMs) instantiated either on premises or on VMware Cloud on AWS by replicating them to the cloud and recovering them to a VMware Cloud on AWS Software-Defined Data Center. Through a series of in-depth interviews, IDC conducted research that explored the value and benefits for organizations using VMware Live Recovery to effectively protect workloads and recover from disruptions with speed and efficiency.

Business Value Highlights

Click highlights below to navigate to content within this document.

- **$24,000** average annual benefit per VMware Live Recovery–supported application
- **323%** three-year ROI
- **12 month** payback period
- **68%** more productive disaster recovery teams
- **26%** more efficient IT security staff
- **14%** more efficient compliance teams
- **36%** less unplanned downtime annually
- **75%** quicker to resolve downtime events

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Based on this data and using a Business Value methodology, IDC calculates that these VMware customers will achieve benefits worth an annual average of $5.7 million ($24,000 per VMware Live Recovery–supported application) by:

- Boosting the overall productivity of IT disaster recovery teams with highly automated functionality
- Fostering greater efficiencies for compliance and security teams
- Significantly lowering the occurrence and productivity impacts of data loss incidents and optimizing restoration and normalization efforts
- Curtailing the incidence of unplanned downtime, thereby increasing overall business productivity
- Providing business enablement to increase end user productivity

84%
less staff productivity lost from unplanned downtime

31%
less data loss incidents annually

66%
quicker to resolve data loss incidents

76%
less staff productivity lost from data loss incidents

Situation Overview

Traditional DR involved two or more datacenters with redundant infrastructure in each that required constant coordination, data replication, and monitoring. These schemes were expensive and complicated and often failed at the most critical moment because of incompatibilities not discovered until failover. Testing was done annually at best due to the high cost and disruption to the organization. Organizations not in flood-, earthquake-, hurricane-, or tornado-prone areas often made the conscious decision to accept the risk rather than suffer the expense of such DR. We estimate that fewer than 50% of organizations had any sort of DR infrastructure prior to the advent of DRaaS.

The advent of the cloud-based DR completely changed the economics and complexity of implementing DR. With cloud logistics, companies can establish a minimal presence in a cloud datacenter and access resources in the event of disaster. Moreover, virtual machines greatly simplify workload migration and spin-up of application servers. In many cases, the DRaaS supplier is available to assist with threat assessment, operational processes, and testing.

The no-compromise element of successful DR plans is data survival. This starts with consistent, reliable backup, multisite data storage, encryption, immutability, and air gap. In addition, DR systems must meet the service-level requirements of the organization. The two key service levels (SLAs) to be measured and monitored are recovery point objective (RPO) and recovery time objective (RTO). RPO measures the period between data backups or copies, which dictates the maximum time in which data may be lost.

RTO measures the time it takes to restore normal business operations beginning at the time of failure. Currently, the best practice RPO is one hour, and the RTO is four hours for a given application. Of course, this will vary from applications requiring RPO/RTO measured in seconds or minutes to those measured in hours or days. Regardless, DRaaS providers can assist organizations in establishing proper SLAs and the infrastructure needed to attain them.

More recently, ransomware has come to be included with events that demand a disaster response. Cyberattacks can be so pervasive and impactful that organizations declare a disaster. As a result, a new market is emerging: cyber-recovery as a service. Just as DR is built on B/R, cyber-recovery (CR) is built on DR. Organizations can therefore take advantage of cloud economics and their investment in DR for cyberpreparedness and cyber-resilience.

VMware Live Recovery Overview

VMware Live Recovery is a DRaaS and cyber-recovery as-a-service (CRaaS) solution (SaaS) designed specifically for VMware's virtual environment. It provides the resources of cloud computing with the rapid workload migration and recovery of virtual infrastructure.

Key features of VMware Live Recovery include:

- Immutable and operationally air-gapped snapshots can be live mounted for rapid recovery of virtual machines.
- Pilot-light mode allows a subset of a software-defined datacenter (SDDC) to shorten the time needed to deploy two to three host of failover capacity systems to reduce recovery time.
- Instant power-on allows stored replicas to be instantly mounted into the SDDC.
- Delta-based failback provides rapid transfer of changed blocks to speed failback efforts.
- DR health checks, as often as every 30 minutes, ensure that changes to system configurations do not compromise readiness.
- Detailed DR reports ensure proper processes are followed and support readiness audits.
- VMware customers can improve data availability and integrity by using it to protect the spectrum of data threats, from the mundane to sophisticated modern ransomware attacks.

The Business Value of VMware Live Recovery

Study Firmographics

IDC conducted research that explored the value and benefits for organizations using VMware Live Recovery to effectively protect workloads and recover from disruptions with speed and efficiency. The project included interviews with six organizations that use VMware Live Recovery and have experience with and/or knowledge about the benefits and costs of using VMware Live Recovery. During the interviews, companies were asked a variety of quantitative and qualitative questions about the offering's impact on their IT/DR operations, core businesses, and costs.

Table 1 presents study firmographics. The organizations that IDC interviewed had an average base of 72,500 employees and total average annual revenue of $14.2 billion. On average, these companies had 9,454 IT staff who were engaged in supporting 862 business applications. In terms of geographic distribution, all companies were based in the United States. There was a wide variety of vertical markets represented, including financial services (2), healthcare, hospitality, media, and software.

TABLE 1

Firmographics of Interviewed Organizations

	Average	Median	Range
Number of employees	72,500	12,750	3,500–270,000
Number of IT staff	9,454	475	125–55,000
Total number of business applications	862	600	20–2,500
Total number of terabytes per organization	102,417	3,750	500–60,000
Annual revenue	$14.2B	$15.0B	$2.0B–$30.0B
Countries	United States (6)		
Industries	Financial services (2), healthcare, hospitality, media, software		

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Choice and Use of VMware Live Recovery

The organizations that IDC interviewed described typical usage patterns for VMware Live Recovery. They also discussed their rationale for choosing it as a cost-effective way to protect workloads and recover from disruptions with greater speed and efficiency than previous approaches. Study participants commented on their decision criteria. They stated that their choice of VMware Live Recovery related to its robust features and functionality. High levels of customer support, optimal SLAs, and strong security were also cited. Interviewed organizations also noted that the platform helped them ensure better availability for their customer-facing applications. In addition, existing IT expertise and staff familiarity with VMware infrastructure was also an important consideration.

Study participants elaborated on these benefits:

Strong feature set, financial services organization:
"We chose VMware Live Recovery because of the robust features and functionalities, their high level of customer service, SLAs, and strong security."

Better application availability, software organization:
"We selected VMware Live Recovery because we wanted to ensure better availability of our applications. If our applications aren't available, if our infrastructure that is providing that software on the cloud is down, we're losing customers. It is not a small impact."

Existing VMware expertise, media organization:
"My organization selected VMware Live Recovery because we have a lot of expertise in our organization with VMware virtualization and the whole tech stack. It made perfect sense for us to use VMware Live Recovery and leverage it in our hybrid cloud environment."

Extra security and backups, hospitality organization:
"My organization decided to use VMware Live Recovery because it provides the extra security we need should we have any sort of issues or incidents or events. Before we selected VMware Live Recovery, we had a good solution in place, it was piecemeal, it was ad hoc, and it was not fully managed."

Table 2 (next page) provides granular data on the organizational usage of VMware Live Recovery across all companies at the time of interviews. As shown, there were on average 6 datacenters running 860 virtual servers and 3,404 cloud VM/instances. On average, 9,341TBs supported study participants' infrastructures and 239 applications were in play. Additional metrics are presented.

TABLE 2

Organizational Usage of VMware Live Recovery

	Average	Median
Datacenters	6	3
Public cloud providers	2	2
Sites/branches	1,341	40
Virtual servers	860	1,000
Cloud VM/instances	3,404	500
Application users	16,373	16,975
Applications	239	91
Terabytes	9,341	1,384

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Business Value and Quantified Benefits

IDC's Business Value research evaluates and quantifies the benefits for companies in adopting VMware Live Recovery as a cost-effective way to protect workloads, recover from disruptions with speed and efficiency, and in general optimize their disaster recovery resources. Analyzed IDC data confirmed that VMware Live Recovery had positive impacts on the IT operations and core businesses of studied companies. After adoption, interviewed companies were able to boost the overall productivity of IT disaster recovery teams with highly automated functionality. Using VMware Live Recovery also significantly lowered the occurrence and productivity impacts of data loss incidents and optimized restoration and normalization efforts after such events. Adoption also fostered greater efficiencies for compliance and security teams while lowering the incidence of regulatory fines. In addition, companies found they could reduce the incidence of disruptive unplanned downtime events, which helped maintain and support end-user productivity.

Study participants offered these comments about VMware Live Recovery's most significant benefits:

Tight VMware product integration, healthcare organization:

"Integration of VMware Live Recovery into vCenter has been the most significant benefit for my organization. That was the big selling point. It is tightly integrated into the vSphere world, vCenter specifically, it's just presented as another datacenter. From an internal IT perspective, it's simple for us to manage because it's so tightly woven into VMware's cloud offering, and vSphere specifically."

Ability to meet SLAs, financial services organization:

"VMware Live Recovery enables us to achieve our desired performance levels for our applications. From an IT operations perspective, it enhances data requirements within our SLAs, but it also makes the operations much more efficient, so we don't have to get extra resources, to ensure that we have a completely secure and recoverable site with data for our applications."

Added layer of security, hospitality organization:

"The most significant benefit of VMware Live Recovery is having that added layer of security. It gives us the ability to catch things, basically, as they happen. This makes us able to ensure higher uptime for data."

Greater confidence in disaster recovery, media organization:

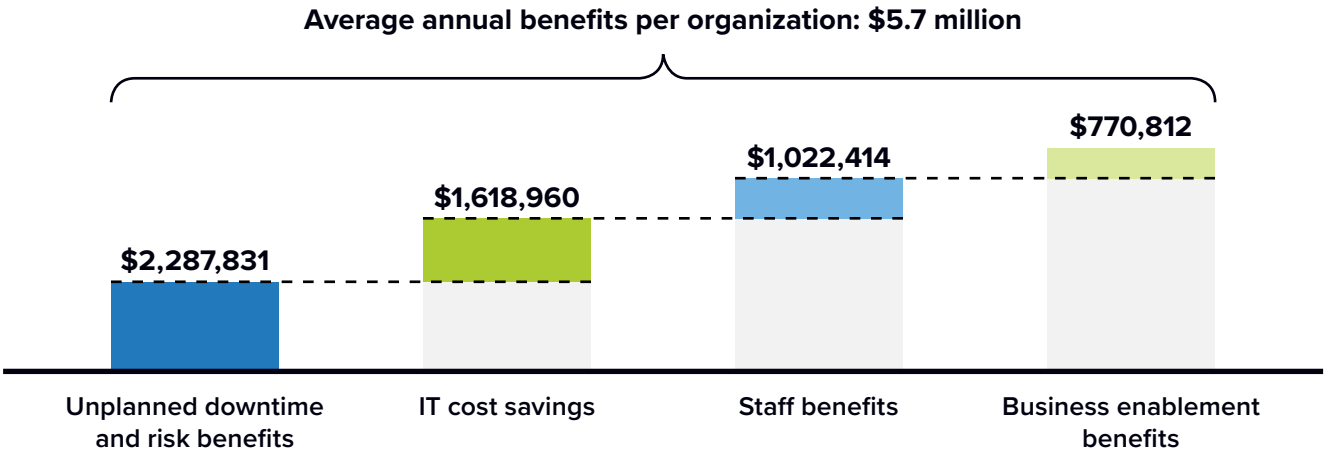
"The main benefit of VMware Live Recovery has been that our confidence in disaster recovery has gone up. Testing has become more efficient, and feedback from the engineers is positive."

Figure 1 (next page) presents IDC's calculations of cumulative customer benefits after adoption of VMware Live Recovery. Average annual benefits were quantified at $5.7 million per organization, or $24,000 per VMware Live Recovery–supported application. **Figure 1** (next page) breaks out the four major product areas studied as shown.

FIGURE 1

Average Annual Benefits per Organization

($ per organization)



n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

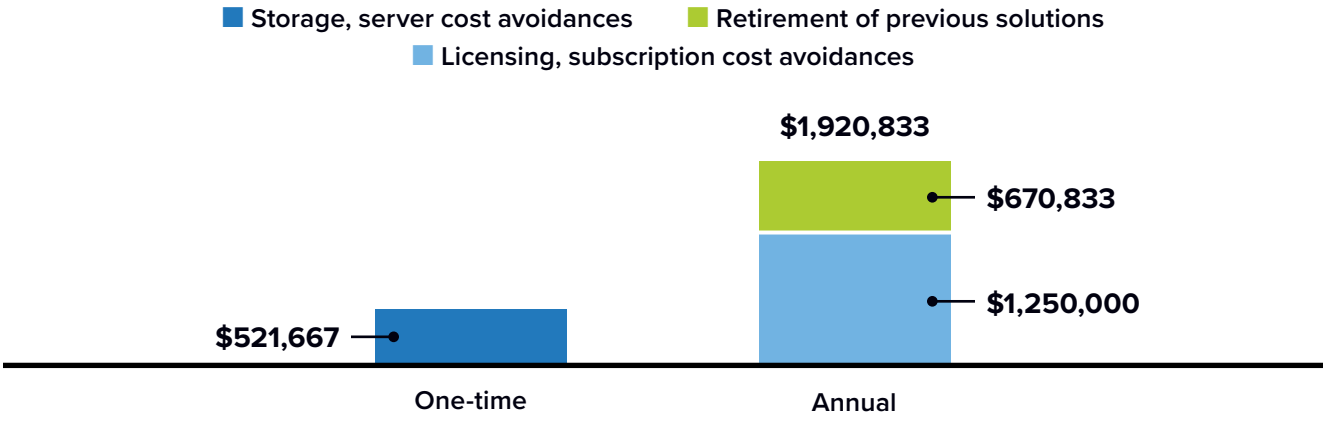
Figure 2 shows one-time and annual IT cost savings calculated by IDC in the post-adoption use of VMware Live Recovery for the following three categories:

- Storage, server cost avoidances
- Retirement of previous solutions
- Licensing, subscription cost avoidances

FIGURE 2

IT Cost Savings

($)



n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

For an accessible version of the data in this figure, see Figure 2 Supplemental Data in Appendix 2.

Operational Benefits of VMware Live Recovery

A significant number of organizations have undergone data-related business disruption in recent years related to ransomware and malware attacks. This means that modernizing data protection, including backup and disaster recovery, must be a top priority for IT organizations to avoid data corruption or situations where data is unrecoverable data. However, IDC research and surveys show that most organizations are not satisfied with their existing backup and disaster recovery approaches. This highlights the need for having robust data protection technologies in place that can serve to lower RPO and minimize data loss.

VMware Live Recovery is designed to help companies address many of these challenges with a cyber and disaster recovery as-a-service delivered as a SaaS solution and offering the well-known cost benefits associated with cloud economics. VMware Live Recovery protects virtual machines (whether on premises or on VMware Cloud on AWS) by replicating them to the cloud and recovering them to a VMware Cloud on AWS SDDC.

Study participants discussed the various operational benefits of their VMware Live Recovery deployments. They appreciated that the platform helped them run leaner IT organizations with significant hiring avoidance. They also touted automation functionality that allowed them to migrate away from having to manually test and create reports. Improved overall security functionality and easier infrastructure management were also highlighted.

Study participants elaborated on these benefits:

Hiring avoidance (financial services organization):

"A big operational benefit of VMware Live Recovery is that we have been able to save almost 20 full-time hires. They would be managing the infrastructure, applications, and daily support and maintenance."

Increased automation (software organization):

"VMware Live Recovery has had a big impact on our data protection efforts. Instead of having to manually test and create reports, a lot of that's already automated. The automated health check feature is great."

Improved security functionality (media organization):

"VMware Live Recovery improves the posture on security in the sense that the team is leveraging the built-in functionality of VMware Live Recovery, which makes doing their job and passing audits easier."

Easier infrastructure management (healthcare organization):

"VMware Live Recovery makes it easier to manage our infrastructure. It gives us powerful integration across the whole cloud and disaster recovery suite."

To provide an accurate picture of post-adoption experiences with VMware Live Recovery, IDC evaluated a variety of impacts beginning with IT infrastructure team efficiency gains. Interviewed organizations found that the high level of integration provided by VMware Live Cyber Recovery enabled their infrastructure management teams to be more capable and effective in managing hardware.

Table 3 quantifies these benefits. As shown, interviewed companies avoided hiring one FTE through the use of VMware Live Recovery. Factoring in this hiring avoidance and their overall ability to work with greater speed, the IT infrastructure team saw an overall 15% efficiency gain. This resulted in an average value of staff time per year of $154,250 for each organization.

TABLE 3

IT Infrastructure Team Efficiency Gain

	Before VMware Live Recovery	With VMware Live Recovery	Difference	Benefit
Total FTE count	9.0	8.5	0.5	6%
Hiring avoidance	1.0	–	–	–
Adjusted FTE	10.0	8.5	1.5	15%
Value of staff time per year	$1.0M	$849,917	$154,250	15%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

IDC then evaluated impacts for disaster recovery teams. Interviewed organizations noted that these teams benefited from the automation provided by VMware Live Recovery for testing and reporting. As a result, they were able to create more backups and complete data recovery quicker and within defined objectives. In fact, IDC found that 18% more backups could be completed weekly after adoption. Importantly, VMware Live Recovery gave them greater confidence in their data recovery capabilities.

Table 4 (next page) further quantifies these benefits. As shown and based on adjusted FTE, interviewed companies saw a 68% productivity boost in the work performed by their disaster recovery teams. This resulted in an average annual value of staff time of $795,833 for each organization.

TABLE 4

Disaster Recovery Team Productivity Gain

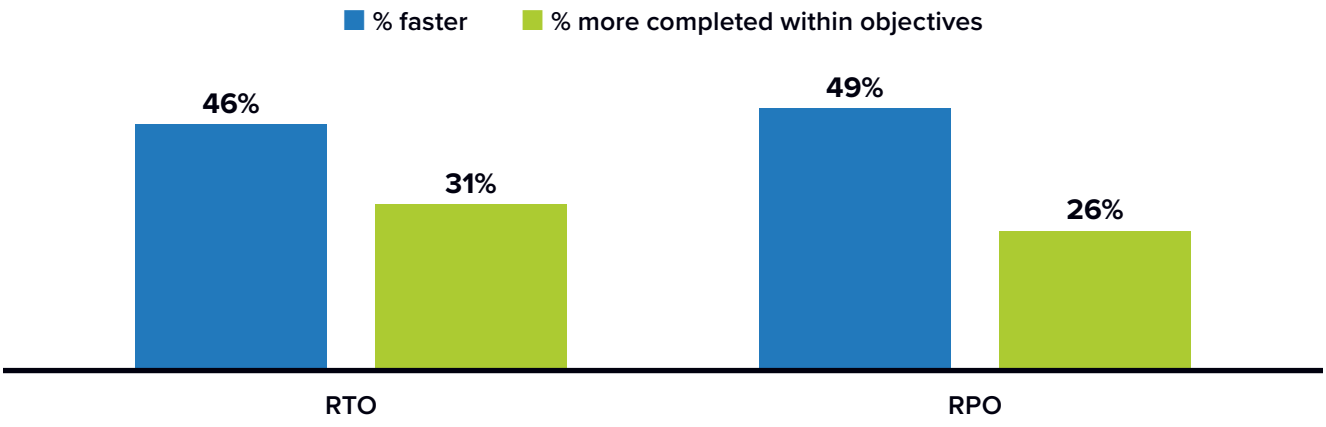
	Before VMware Live Recovery	With VMware Live Recovery	Difference	Benefit
Total FTE count	11.7	16.6	5.0	43%
Hiring avoidance	–	3.0	–	–
Adjusted FTE	11.7	19.6	8.0	68%
Value of staff time per year	$1.2M	$2.0M	$795,833	68%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

IDC then looked at RTP/RPO metrics. Recovery time objective, the targeted duration of time between the event of failure and the point where operations resume, is a key DR metric that IDC evaluated along with recovery point objectives. Interviewed companies reported that both RTO and RPO were positively impacted by the automation functionality provided by VMware Live Recovery. They noted that disaster recovery teams no longer had to spend time manually testing applications, creating reports, and performing health checks. **Figure 3** shows significant improvements for both RPO and RTO operations.

FIGURE 3

Impact on RTO/RPO



n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

For an accessible version of the data in this figure, see Figure 3 Supplemental Data in Appendix 2.

Security was identified as another key area where VMware Live Recovery had substantive impacts. Interviewed organizations noted that their security teams benefited from the better governance, encryption, authentication, and traceability provided by the VMware Live Recovery platform. As a result, they felt that their organization had achieved a better overall security posture.

Table 5 quantifies these benefits. As shown and after adoption, interviewed companies saw a 26% efficiency gain for the security team of interviewed organizations, meaning they needed 2.6 fewer FTEs with VMware than their previous solution. This enabled staff to be repurposed and focus on other critical business initiatives. This efficiency gain resulted in a value of staff time per year of $255,112 for each organization.

TABLE 5

Security Staff Efficiency Gain

	Before VMware Live Recovery	With VMware Live Recovery	Difference	Benefit
Total FTE count	9.8	7.3	2.6	26%
Value of staff time per year	$983,333	$728,221	$255,112	26%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Compliance teams also derived benefits from the use of VMware Live Recovery. Study participants reported that demonstrating compliance and meeting regulatory requirements was far easier with VMware Live Recovery deployed. As a result of better audit trails and VMware support, compliance teams were more productive. These teams saw a 14% productivity boost that resulted in an average annual business value of $47,578 for each organization (see **Table 6**, next page).

TABLE 6

Compliance Team Productivity Gain

	Before VMware Live Recovery	With VMware Live Recovery	Difference	Benefit
Equivalent productivity level (FTEs)	5.0	5.7	0.7	14%
Value of staff time per year	$350,000	$397,578	$47,578	14%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Unplanned Downtime and Risk Reduction with VMware Live Recovery

Business resiliency is critical in today's volatile enterprise environments, including the need to keep incidences of unplanned downtime to a minimum. Interviewed organizations reported that they minimized the frequency and impact of unplanned downtime with VMware Live Recovery. For internal end users, business partners, and customers, this translated into an improved IT experience and lowered business and operational risks stemming from potential outages involving key business applications and services.

By analyzing interview data, IDC confirmed that study participants experienced improvements in this area. In their comments, companies noted that the platform offered shorter application replication windows and less business interruption resulting in loss of operational revenue. They also appreciated that VMware Live Recovery was tightly integrated, thereby making it easier to identify inefficiencies. The benefit of better audit support was also called out.

Study participants elaborated on these benefits:

Shorter application backup windows, media organization:
"The performance of our applications is better because the backup window is shorter."

Less business interruptions, hospitality organization:
"VMware Live Recovery has impacted our staff in the form of less business interruptions. We didn't lose as much operational revenue, because with VMware Live Recovery, we didn't have a lot of staff not working because of downtime."

Risk reduction from tight integration, healthcare organization:
"VMware Live Recovery has reduced our risk of data loss, with this solution, we get a nice view, it's tightly integrated, and it's easier to identify inefficiencies, so that's where the risk is reduced."

Better audit support, financial organization:

"My organization is regulated by financial audit bodies that want to see what disaster recovery solutions we have in place and our SLAs. Using VMware Live Recovery has really helped us get through that process."

In general, VMware Live Recovery reduced the frequency of unplanned downtime outages occurring while improving the time it takes to resolve an outage. This enabled greater end-user productivity levels and better business-critical application availability. **Table 7** quantifies the reduction in unplanned downtime. As shown, after adoption, the annual frequency of unplanned outages was reduced by 36%. Further, when disruptive events did occur, they were remediated 75% faster. These two improvement areas combined for an overall reduction in staff productivity loss per year of 84% and translated into an average annual value of $1,679,341 for each organization.

TABLE 7

Unplanned Downtime Impact

	Before VMware Live Recovery	With VMware Live Recovery	Difference	Benefit
Number of outages per year	8.30	5.40	3.00	36%
MTTR (hours)	18.60	4.60	14.00	75%
Users impacted by downtime	715	715	–	–
Percentage of productivity loss	48%	48%	–	–
Total FTE loss in productivity per year	28.50	4.56	24.00	84%
Value of lost productive time per year	$2.00M	$318,961	$1.68M	84%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Interviewed organizations also noted that VMware Live Recovery significantly reduced the frequency of data loss while improving the time it takes to resolve a data loss incident when they do occur. This enabled greater end-user productivity levels and better overall business confidence.

Table 8 provides a breakdown of specific benefits. As shown, after adoption, the annual frequency of data loss incidents was reduced by 31%. Further, when such events did occur, they were remediated 66% faster. These two improvement areas combined for an overall reduction in staff productivity loss of 76% that translated into an average annual value of $457,433 for each organization.

TABLE 8

Data Loss Incidents — End-User Impact

	Before VMware Live Recovery	With VMware Live Recovery	Difference	Benefit
Number of data loss incidents per year	4.60	3.20	1.40	31%
MTTR (hours)	20.10	6.90	13.30	66%
Users impacted by data loss	518	518	–	–
Percentage of productivity loss	33%	33%	–	–
Total FTE loss in productivity per year	8.50	2.01	6.50	76%
Value of lost productive time per year	$598,214	$140,781	$457,433	76%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Interviewed companies reported that VMware Live Recovery radically reduced the risk of data breach or data loss. With tighter integrations, they were able to reduce fines while increasing organizational stability and maintaining their overall reputation. As a result, companies were able to achieve total data breach/loss cost avoidance totaling an average of $658,375, assuming one major event every 10 years avoided (see **Table 9**, next page).

TABLE 9

Data Breach/Loss Risk Reduction Cost Efficiencies

	VMware Live Recovery Impact	Per VMware Live Recovery–Managed Application
Cost of major data breach/loss	$19.08M	$79,930
Risk reduction with VMware Live Recovery	35%	35%
Total data breach/loss cost avoidance	$6.58M	$27,576
Risk cost efficiencies—IDC model*	$658,375	$2,758

* The IDC model assumes a 15% operating margin for all additional revenue.

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

An increase in business complexity has created challenges in maintaining regulatory compliance for companies of all types. In this context, VMware Live Recovery was able to also improve data governance efforts. Interviewed organizations noted that the platform enabled their organizations to be more compliant with industry regulations, which significantly reduced the risk of fines. Factoring in an operating margin of 15%, IDC calculated total compliance-related fine cost avoidance of $245,906 for each company (see **Table 10**).

TABLE 10

Annual Compliance Fine Avoidance

	VMware Live Recovery Impact	Per VMware Live Recovery–Managed Application
Annual cost of compliance-related fines	$4.58M	$19,162
Reduction of risk of fines	36%	36%
Total compliance-related fine cost avoidance	$1.64M	$6,867
Total fine cost avoidance—IDC model*	$245,906	$687

* The IDC model assumes a 15% operating margin for all additional revenue.

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Business Enablement Benefits

Improving DR operations and better managing for risk-associated occurrences such as data loss and unplanned downtime had measurable impacts on the business operations of interviewed companies. Study participants reported that they were able to optimize key aspects of their business. Applying Business Value analysis to in-depth survey data, IDC confirmed that adopting VMware Live Recovery enabled more efficient business operations and results for interviewed companies.

Study participants noted that with VMware Live Recovery, they could provide high-end solutions for internal service customers and recover data within SLAs when incidents occurred. They commented that they were able to quickly and easily help customers who accidentally deleted information, an option which was cumbersome and time consuming using previous approaches. They noted that the use of VMware Live Recovery resulted in improved experiences in employees' use of SaaS platforms and that this led to better employee productivity and quicker access to data.

Study participants elaborated on these benefits:

Keeps lights on to meet business needs, financial services organization:

"A significant business benefit has been mostly around being able to provide high-end solutions for our internal service customer and being able to recover them within our SLAs if an incident occurs. It's within our business requirements, and we're really happy that we are meeting all our requirements to keep our business up and running. Basically, VMware Live Recovery keeps the lights on, it ensures that we don't lose data, the solution works perfectly well for our business needs."

Quicker customer service, software organization:

"The biggest business benefit of VMware Live Recovery is that we've have been able to help customers who have accidentally deleted information. Prior to deployment, this would be a big project. With VMware Live Recovery, we are able to go back to a snapshot and pull it up."

Better employee experience, financial services organization:

"It has improved the experience of using a SaaS platform. It has led to better employee productivity and quicker access to data."

VMware Live Recovery enabled better performance and availability of business-critical workloads and applications, which increased the productivity of end users at interviewed organizations. IDC quantified business enablement improvements after adoption. **Table 11** (next page) illustrates that, factoring in a 15% operating margin, VMware Live Recovery enabled end users to work with the productivity of 15 additional FTEs, which IDC valued at $1,024,587.

TABLE 11

Business Enablement — End User Productivity Gains

	Before VMware Live Recovery	With VMware Live Recovery	Difference	Benefit
Total FTE count	1,157	1,254	98	8.0%
Total FTE count — net	1,157	1,171	15	1.3%
Calculated value of productivity	$80.96M	$81.98M	$1.02M	1.3%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

ROI Summary

Table 12 presents IDC's return on investment (ROI) and analysis of study participants' use of VMware Live Recovery. As shown, IDC projects that these companies will achieve three-year discounted benefits worth an average of $13,235,100 per organization ($55,435 per VMware Live Recovery–managed application) through better overall DR operations, IT and LOB staff efficiencies, and improved business performance. These benefits compare with total three-year discounted costs of $3,131,900 per organization ($13,118 per VMware VMware Live Recovery–managed application). These levels of benefits and investment costs are projected to result in an average three-year ROI of 323% and a break-even point in their investment occurring in 12 months.

TABLE 12

Three-Year ROI Analysis

	Per Organization	Per VMware Live Recovery–Managed Application
Benefit (discounted)	$13.24M	$55,435
Investment (discounted)	$3.13M	$13,118
Net present value (NPV)	$10.10M	$42,317
ROI (NPV/investment)	323%	323%
Payback (months)	12	12
Discount factor	12%	12%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Challenges/Opportunities

Disaster recovery is a complex task that is the classic triumvirate of people, process, and technology. A failure of any of these three can result in long recovery times or data loss, or both. IT leaders should not mistakenly believe that any technology is a silver bullet nor a substitute for strong people and processes. Moreover, even though DRaaS significantly reduces the cost of DR, certain investments are still required and will be a net increase to the IT budget, all other things being equal. IT organizations not willing to make the full necessary investment will get the worst of both worlds: higher costs and inadequate recovery results. In most cases, the cost of downtime dwarfs the cost of DR implementations.

VMware Live Recovery is clearly designed for VMware environments and does not offer a solution for non-VMware environments. While 85% of current workloads are virtualized and VMware enjoys the largest market share of VM deployments, organizations may also have physical, legacy, or other technical deployments that can't be satisfied by DRaaS. Such organizations will need to address these workloads using a different DR solution. Fortunately, there are many DR providers that are partners with VMware but also understand non-VMware DR requirements.

Conclusion

Cyber and disaster recovery is no longer a 'nice to have'—it is a requirement for any organization to ensure operational continuity and business survival in the event of serious system outage. With DR as a foundational element of cyber-recovery, organizations must have it to provide recovery from cyberattack. The cyber and disaster recovery solution marketplace is robust with many options to choose from. Differentiating those options can be a challenge, with each vendor making claims and counterclaims. We believe that independent business value analysis is one of the best ways to assess the potential results from a specific solution as a key differentiator. From our analysis, VMware Live Recovery delivered substantial value to the organizations we examined. A third less downtime, 75% faster time to incident resolution, and 84% improvement in staff productivity related to unplanned downtime are just some of the key findings from our study. While every situation is different and may yield different results, we believe the breadth of analysis herein, based on different sizes and industries of organizations studied, offers a fair representation of results that can be achieved with VMware Live Recovery.

Appendix 1: Methodology

IDC's standard ROI methodology was utilized for this project. This methodology is based on gathering data from current users of VMware Live Recovery as the foundation for the model.

Based on interviews with organizations using VMware Live Recovery, IDC performed a three-step process to calculate the ROI and payback period:

1. **Gathered quantitative benefit information during the interviews using a before-and-after assessment of the impact of VMware Live Recovery.** In this study, the benefits included IT cost reductions and avoidances, staff time savings and productivity benefits, and revenue gains.
2. **Created a complete investment (three-year total cost analysis) profile based on the interviews.** Investments go beyond the initial and annual costs of using VMware Live Recovery and can include additional costs related to migrations, planning, consulting, and staff or user training.
3. **Calculated the ROI and payback period.** IDC conducted a depreciated cash flow analysis of the benefits and investments for the organizations' use of VMware Live Recovery over a three-year period. ROI is the ratio of the net present value (NPV) and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

IDC bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and productivity savings. For the purposes of this analysis, IDC has used assumptions of an average fully loaded salary of $100,000 per year for IT staff members and an average fully loaded salary of $70,000 per year for non-IT staff members. IDC assumes that employees work 1,880 hours per year (47 weeks x 40 hours).
- The net present value of the three-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.
- Further, because VMware Live Recovery requires a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

Note: All numbers in this document may not be exact due to rounding.

Appendix 2: Supplemental Data

This appendix provides an accessible version of the data for the complex figures in this document. Click "Return to original figure" below the table to get back to the original data figure.

FIGURE 2 SUPPLEMENTAL DATA

IT Cost Savings

	One-time	Annual
Licensing, subscription cost avoidances		$1,250,000
Retirement of previous solutions		$670,833
Storage, server cost avoidances	$521,667	
Total	**$521,667**	**$1,920,833**

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Return to original figure

FIGURE 3 SUPPLEMENTAL DATA

Impact on RTO/RPO

	RTO	RPO
% faster	46	49
% more completed within objectives	31	26

n = 6; Source: IDC Business Value In-Depth Interviews, June 2023

Return to original figure

About the IDC Analysts

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Megan Szurley is a senior research analyst for the Business Value Strategy Practice, responsible for creating custom business value research that determines return on investment (ROI) and cost savings for enterprise technology products. Megan's research focuses on the financial and operational impact of these products for organizations once deployed and in production. Prior to joining the Business Value Strategy Practice, Megan was a consulting manager within IDC's Custom Solutions division, delivering consultative support across every stage of the business life cycle: business planning and budgeting, sales and marketing, and performance measurement. In her position, Megan partners with IDC analyst teams to support deliverables that focus on thought leadership, business value, custom analytics, buyer behavior, and content marketing. These customized deliverables are often derived from primary research and yield content marketing, market models, and customer insights.

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Phil Goodwin is a research vice president within IDC's Infrastructure Systems, Platforms and Technologies Group, with responsibility for IDC's infrastructure software research area. He provides detailed insight and analysis on evolving infrastructure software trends, vendor performance, and the impact of new technology adoption. His focus is on multi-cloud data management, data logistics, on-premises and cloud-based data protection as-a-service, cyber protection and recovery, recovery orchestration, and more. Phil takes a holistic view of these markets, and covers risk analysis, service level requirements and cost/benefit calculations in his research. He also contributes regularly to IDC's CIO advisory practice.

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