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**The perceived value of data may be limitless, but enterprise IT budgets are not. Organizations must strike a balance between the promise of generating value from data and the reality of running their applications cost effectively and securely. Disaster recovery services help ensure enterprise data remains resilient and accessible.**

# Enterprises Seek Disaster Recovery Services in 2021 for Data Resilience Post-COVID-19

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## Introduction: Enterprises Manage More Data Than Ever Before

Enterprises indicate that they expect data (primarily unstructured) to grow an average of 30% annually. Using this growth rate as a general guide, we can assume that an organization managing 10PB of data today will store upwards of 13PB of data the following year. The challenge with this data growth trajectory is that spending on IT infrastructure will either rise in the single digits or remain relatively flat in many enterprises. This dynamic — data growth significantly outpacing IT infrastructure spend — puts many IT organizations in a precarious position. How can enterprises effectively store and protect growing volumes of data without increased budget?

Further complicating this question, enterprise IT is also tasked with connecting data to more applications and business users than ever before in the name of innovation and competitive advantage. However, many enterprises do not necessarily know if/when this data will be valuable or even have a framework to evaluate what data should be stored and for how long. As a result, many enterprises will default to storing as much data as possible for as long as possible, provided it can be done in a cost-effective manner. This inefficient approach is exacerbated by the fact that the perceived value of enterprise data has never been higher. As a result, organizations are scrambling to keep up with capacity growth, data access demands, and the need to connect increasingly sophisticated tools and services to stored data in the name of competitive advantage.

While the perceived value of data may be limitless, enterprise IT budgets are not. Enterprises must strike a balance between the promise of generating value from data and the reality of running their business applications cost effectively and securely. In the scramble to keep up with data growth and monetization of enterprise data, enterprises cannot lose sight of the fact that their data must be protected and secured. This infrastructure resilience provides the foundation for enterprises to ensure their data will always be resilient and accessible. Increasingly, enterprises are turning to disaster recovery (DR) services to address these requirements.

## AT A GLANCE

### KEY TAKEAWAYS

- Enterprise data is expected to grow an average of 30% annually.
- However, spending on IT infrastructure is projected to grow in the single-digits.
- This dynamic — data growth significantly outpacing IT infrastructure spend — puts IT organizations in a precarious position.
- Enterprises will be challenged to balance the promise of generating value from data with the reality of running their infrastructure 24 x 7.
- Disaster recovery services play an increasingly critical role in helping organizations strike this balance.

# The Benefits of Disaster Recovery as a Service: Enabling Modern Enterprise Data Initiatives

## What Is Enterprise Disaster Recovery, and Why Is It Important?

A successful enterprise DR plan is much more than an IT exercise. IT-driven DR efforts are necessary to ensure application availability and can be executed exclusively through the IT team. However, fully developed DR efforts involve the entire organization, from business unit managers to senior executives. Disasters often affect line-of-business (LOB) workers as much as they affect IT systems. It is critical that enterprises take a holistic approach to DR planning that includes both IT and LOB as the potential impact of downtime will affect the entire enterprise. IDC estimates that up to half of all organizations would be unlikely to survive if hit by a disaster that rendered their datacenter unusable. To put the economic impact of downtime further into perspective: IDC research shows the average cost of downtime for enterprises is $250,000 per hour. That means just four hours of downtime can cost an enterprise $1 million. At this rate, almost any infrastructure downtime should seem unacceptable for modern enterprises. IDC research shows that despite the likely cost and dire consequence, fewer than half (48.4%) of enterprise applications, on average, are covered by a comprehensive DR plan.

The primary reason that organizations do not have a complete DR plan is cost. The traditional method of DR is either having duplicate datacenters with redundant failover or contracting with a third party for the redundant infrastructure. In most cases, these solutions nearly double the organization's infrastructure cost. The second reason for DR deficiencies is complexity. Most organizations have dozens or hundreds of applications with complex permutations of interrelated infrastructure. Organizations that developed DR plans found them seemingly becoming obsolete overnight as business operations evolved, new systems were added, and old systems were decommissioned. Modern DR services seek to address these challenges, helping organizations develop DR plans that are flexible and updated at the speed their business requires.

## How DRaaS Helps Enterprises Address Modern Data and Infrastructure Challenges

Disaster recovery as a service (DRaaS) is a cloud-based DR solution that addresses the challenges of cost and complexity. The on-demand nature of cloud allows customers to choose from various models that reduce the capital outlay to create a DR solution because the cost relates to only what is used. In addition, modern tools such as workload migration, data replication, and recovery orchestration tools dramatically simplify the process of recovering virtualized workloads in secondary locations. Modern DRaaS providers deliver a cloud-based service whereby IT organizations can subscribe to the infrastructure resources (compute, storage, networking) that correspond to their application requirements. Typically, these infrastructure resources can be provisioned and paid for on demand.

At an operational level, DRaaS differentiates from traditional DR in three key ways:

- First, the organization doesn't need to stand up and bear the cost of its own alternative infrastructure in a second datacenter.
- Second, when considering traditional DR services, the organization has to contract for a specific set of systems, which may lie idle when not in use. With DRaaS, IT organizations will normally stage data at the DR site using periodic data replication methods. Typically, this storage incurs an ongoing, nominal fee. In the event of a disaster failover, the organization would provision the needed additional infrastructure (e.g., compute, networking, storage) on demand and begin the process of workload migration.
- Third, DRaaS allows enterprises to adopt a wide range of adjacent security, compliance, and application services that go above and beyond the core DRaaS capabilities of threat analysis, runbook creation, and failover testing.

From a technical perspective, DRaaS solutions are commonly built around the following components.

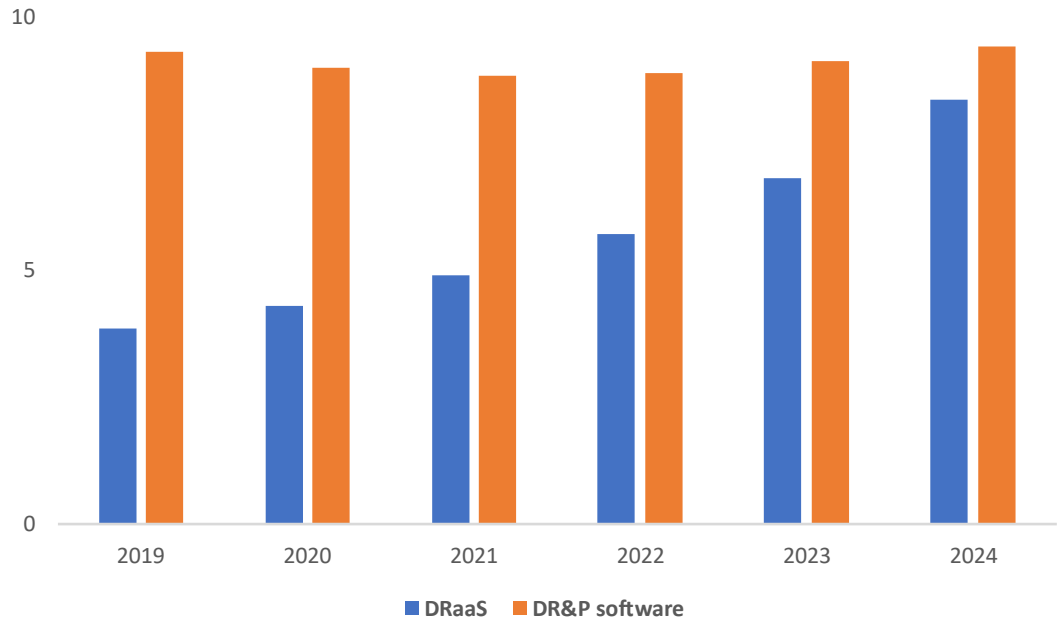
- **Data movers:** This is the core technology used to stage data from the primary system to the DR location. Data movers typically come in the form of a backup/recovery software solution or replication software.
- **Workload migration tools:** These tools facilitate the movement of workloads from the primary site to the DR site across virtual infrastructure. Such tools may abstract the workload from the underlying infrastructure, including the hypervisor.
- **Orchestration tools:** These tools automate the process of bringing applications back online. They can normally start application services, boot systems in the proper sequence, and so forth.
- **Infrastructure resources:** These resources consist of compute, network, storage, security, and all related hardware and software necessary to run the application environment.
- **User portals**: The DRaaS provider furnishes the portals to allow users to provision systems and manage their environment.

These operational and technical elements of DRaaS align well with modern enterprise DR challenges. The on-demand nature of billing and resource allocation provides scale-up/scale-down operations that eliminate capital outlay for unused infrastructure. Furthermore, the managed nature of the service allows enterprises to reduce man-hours associated with things such as DR runbook creation and failover testing as their infrastructure changes. Instead, they can take an SLA-based approach to their DR planning knowing that the service provider is responsible for operating the infrastructure and tools needed. Modern DRaaS solutions also allow enterprises to access a continuously expanding set of adjacent services in order to address new or expanded demands from IT and business stakeholders. These elements of DRaaS have generated significant market adoption over the past three to five years, which is reflected by the performance of the market overall.

## DRaaS Market Sizing and Growth Trends; Impact of COVID-19

IDC estimates the DRaaS market totaled $3.9 billion in 2019 and grew 22% annually from 2018. This growth is significantly faster than that of the traditional data replication and protection (DR&P) software market, which we estimate grew approximately 5% in 2019 (see Figure 1). IDC forecasts that the DRaaS market will reach $8.4 billion by 2024, representing a compound annual growth rate of 16.7%.

FIGURE 1: ***Forecast Growth of DRaaS and DR&P Software Markets ($B)***




*Source: IDC's Worldwide Semiannual Software Tracker, 1H20 Forecast Release and IDC's Worldwide Data Protection as a Service Forecast, 2020–2024*

IDC estimates that more than 2,000 cloud service providers offer a DRaaS solution. Some providers have national or international scope, but many provide local or regional coverage. Some focus on specific applications or IT ecosystems, while others focus on serving specific industry verticals. Cloud service provider offerings can range from bare-bones, do-it-yourself (DIY) infrastructure to full-service "white glove" solutions that assist not just with technology but also with people and process. The continued expansion of this long tail of service providers will be critical to DRaaS market growth. The DRaaS market is expected to continue growing throughout the forecast period because of several additional factors. Three of the most impactful factors are as follows:

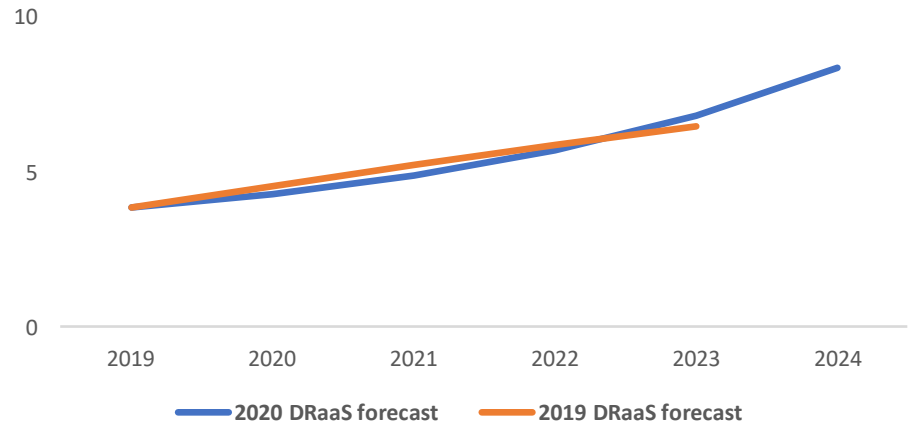
1. Enterprises continue to adopt cloud-based infrastructure-as-a-service (IaaS) solutions, specifically compute and storage resources. These resources are often integrated with DR, backup, recovery, and archiving services because of their scalability and cost-effectiveness.
2. Secondary storage workloads (backup, disaster recovery, archive) are consistently high on the list for IT departments to automate or offload, giving them room to focus on higher-value tasks.
3. Enterprises face a constant battle to manage growing volumes of data in a way that keeps this data secure and accessible. Adoption of DRaaS helps achieve this goal without requiring datacenter expansion or significant capex outlay.

### *COVID-19 Is Changing the Way Enterprises Think About Data Protection and Digital Resilience*

The DRaaS market will remain largely unaffected by COVID-19 in the long term (see Figure 2). We do expect the slower growth seen in 2020 to be a short-term trend, with the DRaaS market recovering throughout 2021 and returning to previously forecast levels of revenue and growth by 2024. IDC's forecast assumptions regarding COVID-19's impact on DRaaS include:

- In the post-COVID-19 era, organizations will look for ways to increase the agility and velocity of change in their organizations, and cloud infrastructure services will continue to play a key role in those efforts.
- COVID-19 may accelerate specific areas of opportunity associated with DRaaS, such as workplace recovery, business continuance planning, pandemic contingency planning, and enterprise initiatives to develop digital resilience.
- COVID-19 will not negatively impact the proliferation and growth of enterprise data and devices. In fact, new ways of working and collaborating because of COVID-19 (e.g., videoconferencing, file sharing to enable an influx of remote work) will only contribute to data generation and the need to ensure data protection, availability, and recovery.
- Although COVID-19 negatively impacted business planning and expenditure in the short term, we believe that over the long term, the legacy of COVID-19 will be used by organizations to strategically reassess their digital business policies with a focus on data protection, resilience, and compliance.

FIGURE 2: ***Forecast Growth of DRaaS Pre- and Post-COVID-19 ($B)***




*Source: IDC's Worldwide Data Protection as a Service Forecast, 2020–2024*

## Considering TierPoint Disaster Recovery Services

TierPoint offers a portfolio of solutions and services built on a software-defined, cloud-agnostic infrastructure. The company's scalable, microservices approach to infrastructure aligns well with many of the DR challenges facing organizations. TierPoint positions itself as an enabler of data protection and data resilience services — DRaaS is just one aspect of the provider's portfolio. This means no matter where an enterprise's applications and data reside (on premises, in a third-party cloud, or in TierPoint's cloud), the company's goal is to help enterprises migrate, modernize, and protect their operations. For some enterprises, this journey may begin with data protection and DRaaS. For others, it may consist of a more complex application or infrastructure migration that pulls in DRaaS as a core component. TierPoint has structured its portfolio to accommodate data resilience use cases across a wide spectrum, from legacy on-premises systems to hybrid cloud-based workload migration and DR.

### Portfolio Overview, Performance, and Key Differentiators

TierPoint's overall Resiliency portfolio includes DRaaS and backup as a service, security services for DDoS mitigation and intrusion detection, and physical workspace services. TierPoint supports its DRaaS and resiliency services with a robust infrastructure foundation. TierPoint manages over 40 datacenters in owned or colocated facilities across North America. These datacenters are further segmented into eight multitenant cloud zones (or pods). From a technology standpoint, TierPoint DRaaS capabilities are built using a mix of ISV solutions from vendors such as Zerto, Dell, VMware, Commvault, and Veeam. TierPoint also leverages a host of VMware-based integrations (e.g., Cloud Director, Cloud Director Availability — previously branded vCloud) to deliver a self-service management and orchestration portal. From a managed services provider perspective, TierPoint's level of involvement can range from basic delivery and deployment to fully managed, white-glove DR services.

TierPoint's services portfolio and owned infrastructure footprint make the company one of the few DRaaS providers that can accommodate customer use cases spanning core (on premises), edge, and cloud infrastructure. This breadth of service is an important value proposition and differentiator that allows TierPoint to build DR solutions addressing a range of infrastructure environments, from fully virtualized multitenant clouds to legacy on-premises mainframes (e.g., IBM i Series, Z Series).

From a business perspective, TierPoint's Recovery Services portfolio (which includes DRaaS) is on pace to grow faster than the market average projected by IDC's DRaaS forecast for 2020 (11%).

### Challenges

IDC research shows that more than 70% of new application deployments will have a cloud component. In some cases, this component may include deployment in a hybrid cloud environment (a mix of cloud and noncloud resources), a cloud-native environment, or a multicloud environment (leveraging services from more than one cloud service provider). The reliance of TierPoint on its own cloud infrastructure may be seen as a challenge in this context, especially with cloud-native customers that want to leverage existing subscriptions to public cloud compute, storage, and networking resources (e.g., AWS EC2, Azure Compute) as a means to power their DR solutions. TierPoint recognizes this gap and plans to address it with planned road map projects including hyperscale recovery options. In the meantime, customers can rely on TierPoint partners to assist with requirements around managed solutions for public cloud providers such as AWS, Microsoft Azure, or Google Cloud Platform.

## Conclusion

The necessity for system failover is a virtual certainty, regardless of what form a disaster takes. Nevertheless, the need for DR and business continuance planning is not always intuitive to business leaders outside the IT ecosystem, or they may not appreciate the extent to which planning is required. But the fact is that for the modern, digital enterprise, the perceived value of data and the potential cost of infrastructure downtime are both at all-time highs. The risks of downtime significantly outweigh the benefits of a low-cost DR plan, and there is no reason for any organization not to have sufficient DR capabilities to rapidly recover from minor events (planned or unplanned) and ensure organizational survival from major events. IDC sees DRaaS providers as an essential, enabling partner in this context, helping organizations modernize their DR strategies and capabilities to align with modern customer expectations of a flexible, scalable, cloud-delivered service. With this in mind, we offer the following advice to both DRaaS buyers and suppliers:

The risks of downtime significantly outweigh the benefits of a low-cost DR plan.

- Continue to marry disaster recovery with a wider portfolio of data resilience services.
- Find practical ways to implement analytics and artificial intelligence–based capabilities into the DRaaS portfolio (e.g., in the form of advanced or predictive identification of malware/ransomware).
- Position DRaaS as a critical enabler of cloud migration use cases (specifically with customers transitioning or migrating a workload to cloud for the first time).
- Help customers understand and measure their cost of downtime. The cost of downtime is a key way for organizations to build a business case for DR solutions/services.

# About the Analyst

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Andrew Smith is a Research Manager within IDC's Enterprise Infrastructure Practice. Andrew's research focuses on public cloud infrastructure-as-a-service platforms and solutions, with specific focus on storage services. Andrew contributes to market sizing and forecast efforts across IDC's Public Cloud IaaS segments as well as adjacent markets like multicloud data management, data protection as a service, and public cloud cold storage.

## MESSAGE FROM THE SPONSOR

TierPoint (***tierpoint.com***) is a leading provider of secure, connected datacenter and cloud solutions at the edge of the internet. The company has one of the largest customer bases in the industry, with thousands of clients ranging from the public to private sectors, from small businesses to Fortune 500 enterprises. TierPoint also has one of the largest and most geographically diversified footprints in the nation, with over 40 world-class, connected data centers in 20 U.S. markets. TierPoint offers a comprehensive solution portfolio of private, multitenant, managed hyperscale, and hybrid cloud, plus colocation, disaster recovery, security, and other managed IT services.

TierPoint invests in and partners with leading vendors, technologies, and platforms to create one of the most advanced Disaster Recovery as a Service (DRaaS) programs, including the following services: Cloud-to-Cloud Recovery, Backup Services (BaaS), High-Availability DR for Diverse Environments (including IBM i/p/zSeries), and Business Continuity Workspace.

IDC Custom Solutions

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