zensar

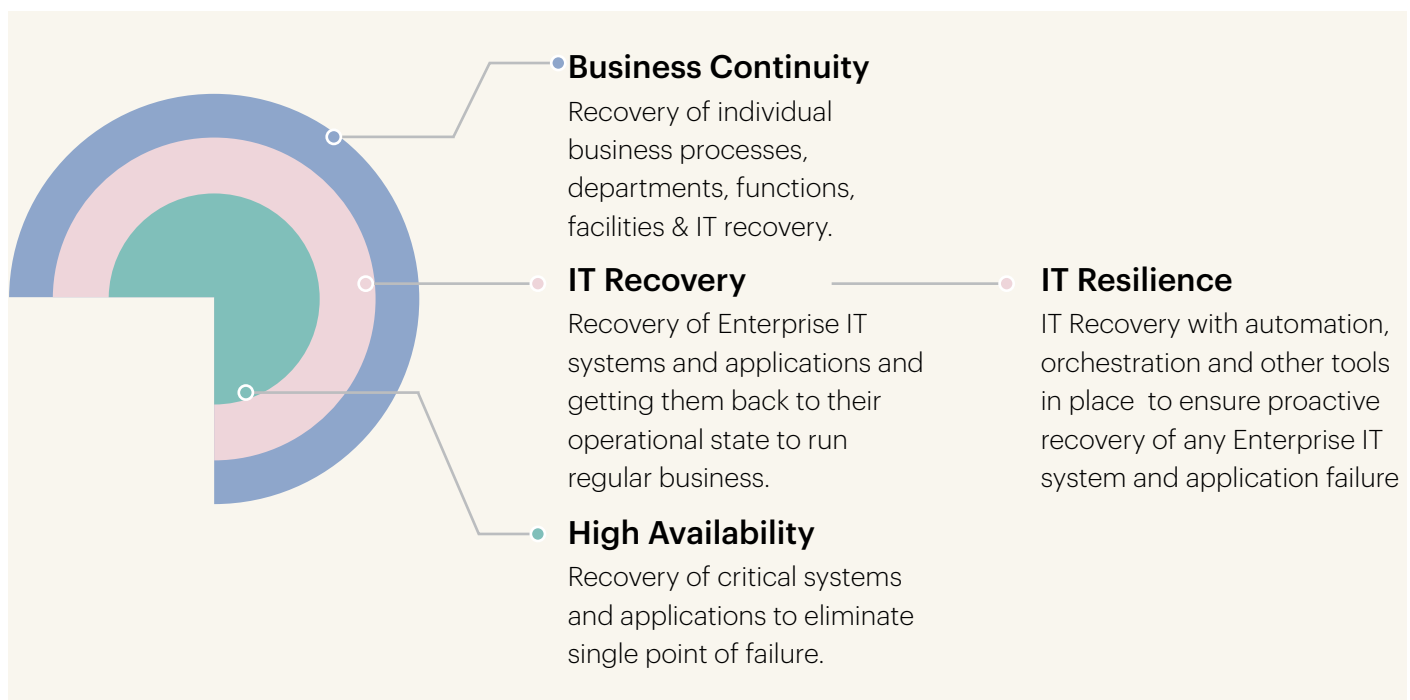# Optimizing Capabilities in Disaster Recovery with **DRaaS**

Abstract

The concepts of disaster recovery and data protection are not new to organizations. However, most organizations are yet to recognize that overarching strategies for disaster recovery are critical to preserving business resilience and competitive advantages. Risks and threats to data evolve constantly while organizational approaches to minimizing them are not keeping pace. From ransomware attacks to natural disasters, IT leaders must contend with a wide range of possibilities in regard to data loss. They must also evaluate different solutions and how they operate within varying technology and cloud environments. The issue needs to be addressed not merely from a technological point of view, but also from a holistic business standpoint. Meaningful data protection strategies need to be driven at top organizational levels to ensure that they are actioned. This whitepaper is intended to provide our view on disaster recovery practices in IT Infrastructure and applications. It offers guidance to enterprise clients — with high and medium infrastructure footprints — who do not currently have a mature disaster recovery plan for IT systems and data.

Understanding the disaster recovery landscape

Disaster recovery (DR) is not a new term in today's IT industry but there is a great need to shift the focus towards disaster recovery strategy in order to ensure business continuity without any disruption. While the traditional IT recovery approach entailed many cost elements which required high capital investments including data centers, hardware, design, implementation and management, the IT recovery landscape today has evolved significantly and resulted in optimization of cost elements.

Whether it is a natural or man-made situation, in order to navigate disruption effectively and choose the right recovery option, it is critical that we evaluate and understand the components of disaster recovery first. To this end, we must also understand the place of disaster recovery in the wider context of business continuity, as illustrated below.

Business Continuity
Recovery of individual business processes, departments, functions, facilities & IT recovery.

IT Recovery
Recovery of Enterprise IT systems and applications and getting them back to their operational state to run regular business.

IT Resilience
IT Recovery with automation, orchestration and other tools in place to ensure proactive recovery of any Enterprise IT system and application failure

High Availability
Recovery of critical systems and applications to eliminate single point of failure.

According to a recent IDC survey, threats to data are on the rise and its consequences are increasingly serious. Attacks from bad actors are no longer rare, but expected. The survey indicated that 95.1% of organizations have suffered a malicious attack within the past 12 months and 36.6% of respondents have suffered more than 25 attacks during that time. The increasing volume of attacks translates into a higher possibility of successful attacks. Of the respondents that reported being attacked, 80.3% indicated that at least one attack resulted in data corruption. To make matters even more difficult, 43% of respondents found that their data is irrecoverable after the attack.

Navigating evolving threats and technologies

The risk of data loss is growing every day and becomes more alarming when recent ransomware attacks and natural disasters are taken into consideration. This is what makes adopting a holistic data recovery strategy crucial.
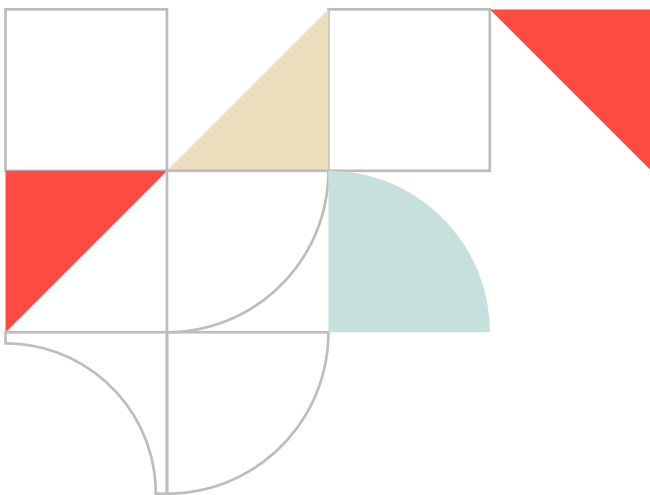
Modernization, transformation, and cloud-first strategic initiatives rely on data availability, and yet most businesses still experience a high degree of disruption associated with their data recovery capabilities. Addressing these challenges must be considered a first step for any IT resilience plan, and many modern backup and DR solutions include the management, orchestration, and automation capabilities required to do so.

Disaster recovery strategies involve several challenges as mentioned below:

Business challenges

24x7 availability for data resilience operations, necessitated by competitive and regulatory pressures.

A cost-effective disaster recovery strategy.

Flexible IT recovery strategy with applications delivering high-value and effective processes.

Innovative IT recovery design, especially for mature businesses with legacy IT.

Long-term staffing and training requirements, which will be strained to keep pace with ongoing changes in IT resilience requirements.
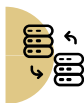
Technology challenges

Recovery solutions offering low recovery time objectives (RTOs) tend to be narrow in scope and cannot handle physical IT recovery required for the resilience of business applications.

Requirement of multiple technologies to recover complex hybrid IT environments.

Legacy systems and initial seeding of data.

The complex licensing of legacy systems that will hinder purchases of cloud-based solutions.

The prospect of managing recovery systems and process documentation, updated and aligned with production.

The relentless expansion of cloud and multi-cloud storage environments, which will add complexity to an organization's backup, DR, and DP environments and IT resilience plans. IT resilience plans will need to balance this complexity with timely implementation.

The emergence of non-traditional data types — including structured and unstructured data formats across categories such as application data, machine learning data, and data gathered from sensors — which requires innovative backup and recovery methodologies.
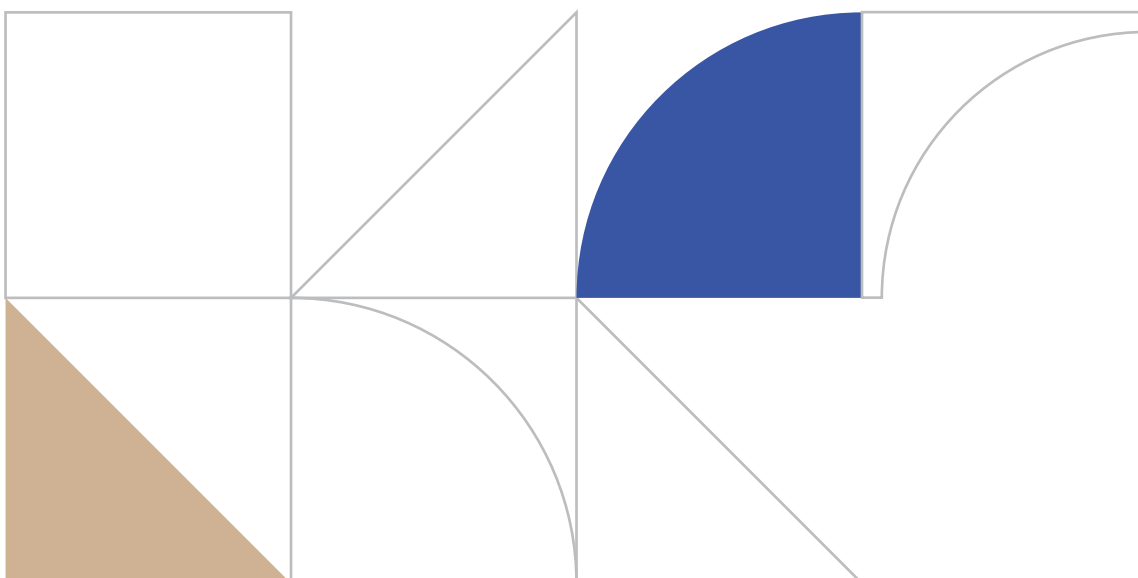
Exploring market trends and challenges

The approach to disaster recovery is inadequate for today's digital businesses. If DR platforms, tools, and initiatives are viewed as a cost center objective and not as a business driver, an organization's cloud and digital transformation initiatives will be at high risk of failure. Today's challenges are not limited to malware attacks, ransomware attacks, and failures due to application or data center migrations and modernization, but also stem from the type of IT recovery solution chosen. For these reasons, we believe it is becoming important for information technology stakeholders and business decision-makers to advance their comprehensive understanding of disaster recovery beyond natural disasters, extending to unplanned and planned disruptions as well.

The key pillars of IT recovery are (1) data protection strategy during planned disruptive events, (2) effective recovery strategy for unplanned and disaster events, and (3) recovery lifecycle management – constant update of the recovery strategy as per change in production.

The following are some of the key findings, including points from the IDC survey results:

- Despite 50% of survey respondents feeling that IT resilience is foundational to the success of their efforts, most believe that their IT resilience strategy may not be optimized to handle evolving threats.

- Of those surveyed, most have experienced business disruptions caused by technology issues, and feel that this has resulted in cost impacts, direct loss of revenue, reputation impacts, or permanent loss of data.

- While 82% of respondents reported that data protection (DP) and disaster recovery were key to their transformation projects, many also indicated that only half of their applications are covered by a comprehensive data recovery strategy. This points to the possibility that the disconnect lies at the business strategy level.

- 45% of organizations reported challenges with the reliability of data restoration, while 44% reported challenges with backup reliability. Complexity was also a leading challenge for 43% of organizations.

- Backup and disaster recovery solutions are starting to converge and consolidate as a single unified solution. Over 90% of respondents stated that, over the next two years, they are likely to pursue a solution of this kind while eliminating redundant tools.
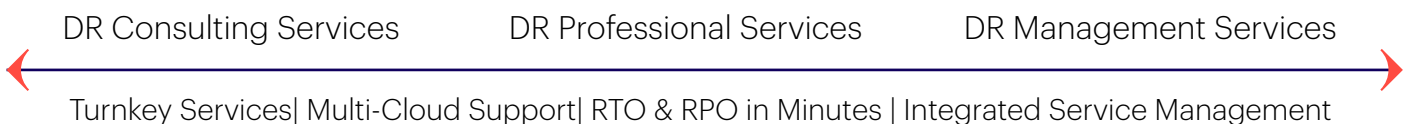
Enhancing recovery possibilities with DRaaS

Our Disaster Recovery as a Service solution (DRaaS) provides private and public cloud infrastructure solutions in accordance with the client's requirement and their recovery platform.
We leverage best-of-the-breed recovery orchestration tools such as Zerto, Azure Migrate, Cloud Endure, Cloudamize, Veeam, device42, Cohesity, AWS Migration Service, and Google Cloud migration service. This allows us to provide disaster recovery, data protection and workload mobility whether on-premises or to, from and between hybrid and multi-cloud environments. Our DRaaS solution allows the recovery of one, all, or a subset of virtualized applications, and is storage and virtualization platform agnostic.

Beyond DRaaS, we provide the complete spectrum of IT recovery services whether it is recovery on cloud, hybrid IT recovery, or traditional IT recovery right from DR assessment, design, implementation, and management services.

IT Resiliency Services Portfolio – Disaster Recovery

Hybrid IT Recovery   Public & Private Cloud Recovery

DR Consulting Services	DR Professional Services	DR Management Services

Turnkey Services| Multi-Cloud Support| RTO & RPO in Minutes | Integrated Service Management

DR Plan Development	Hot, Warm & Cold Site Recovery	DR as a Service (DRaaS)
DR Assessments	Data Replication & High Availability	DR Management & Recovery
DR Optimization	Cloud Recovery, Hybrid IT Recovery	DR Drills & Reporting
DR Automation & Orchestration	Automation & Orchestration of DR Drills, Failover & Failback	DR Monitoring

Program | Security | Governance | End to End DR Services

| Certified & Experienced Recovery Solution Professionals	Platform Agnostic Technology	ITIL

Solution architecture pattern

Today, an effective IT recovery suite of solutions needs to be comprised of best-in-class DR expertise certified by vendors, best-of-breed tools, industry-leading technology partners, and a robust global network of data centers.

It needs to include recovery on cloud, hybrid IT recovery and DRaaS, consulting, professional, and management services.

Zensar One Click Recovery
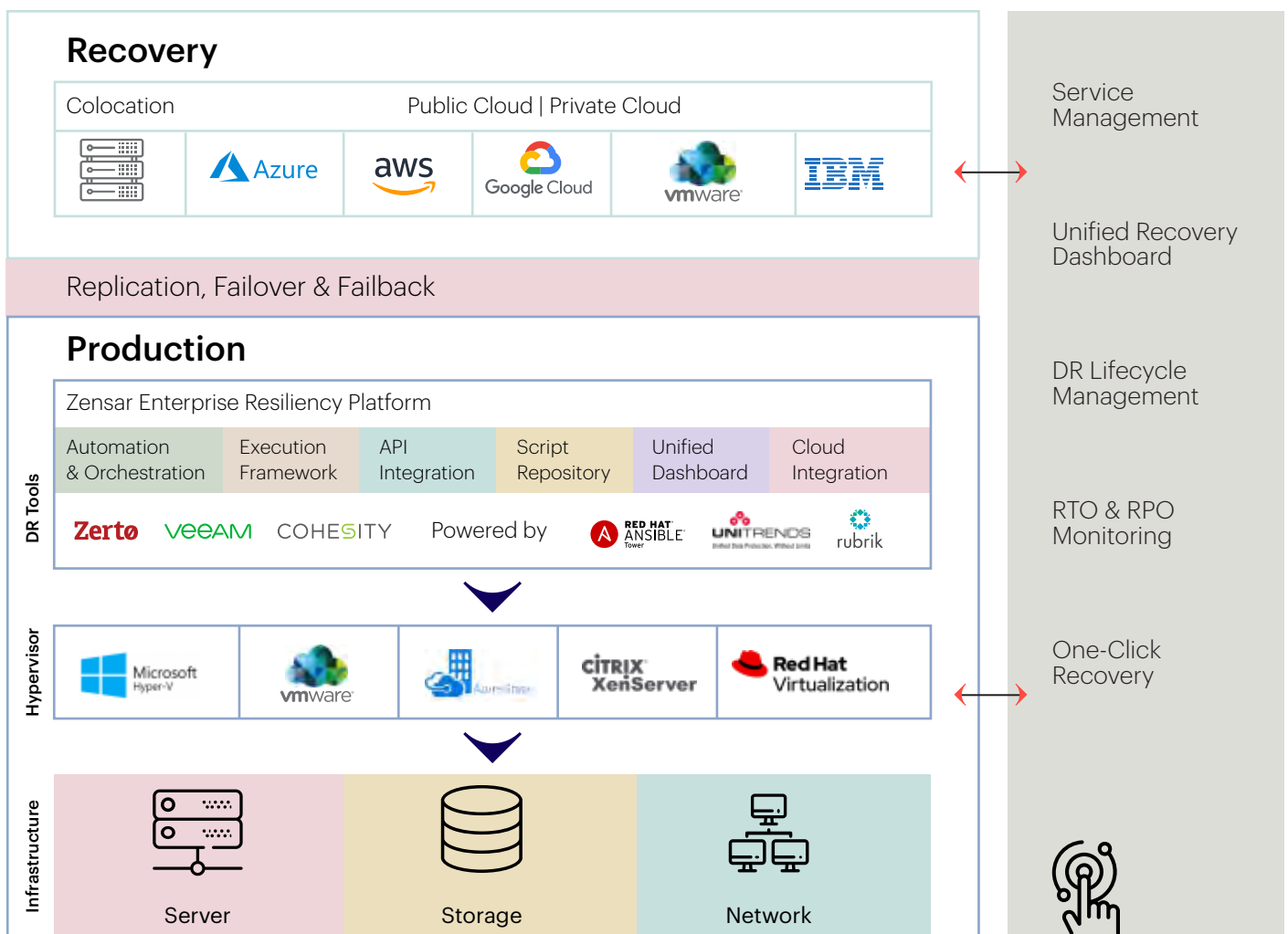
Modern recovery tools, such as the Zensar Enterprise Resiliency Platform (ZERP), offer clients a unified solution with a dashboard for all the different tools needed for disaster recovery and backup, which the client can maintain for their infrastructure and application landscape. This type of tool can integrate with best-of-breed recovery tools and orchestrate the recovery work-flow for seamless recovery.

Features of DRaaS

Legacy System Support

Legacy and physical systems can be integrated into your disaster recovery plan.

Flexibility & Customization

Choose disaster recovery tiers and disaster recovery test frequency.

Continuous Data Replication

Data is replicated continuously with reliable target platform resource availability.

One-Click Failover

Configure the sequence, order, and timing of every mission-critical system, as well as the capability to press one button to test or tiered failover processes.

Security and Compliance

Data is protected in-flight and at rest through end-to-end encryption. provides advanced security options to businesses that have stricter compliance or security requirements.

Recovery Playbook

Provides an outline of all recovery objectives, recovery procedures, system and network configurations, key authorizations, and failover and failback instructions.

Failover & Failback

Automated & orchestrated. Failover support bringing over all multi tiered architectures.

Low RTO & RPO

SLA backed and guaranteed recovery. RTO & RPO reduced from hours to minutes.

No Manual Intervention

Software defined. No manual recovery of web, application and database tiers.

Stateful Recovery

Full operation of applications once recovered and management post failover.
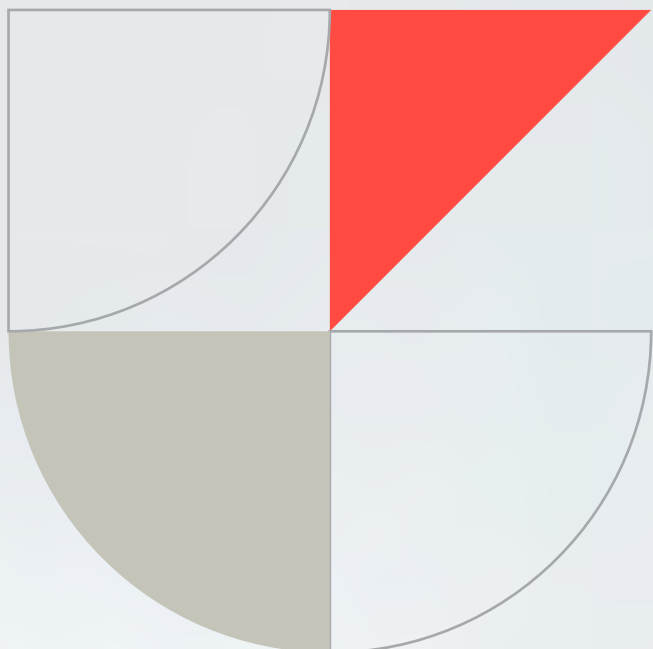
Usage Based Model

Pay-as-you-go pricing for lower cost of ownership and scalability.

Greater Control

Fully automated scripted recovery for OS and applications with user data.

Clients can leverage such as DRaaS solution with a reliable and robust recovery platform for physical, virtual, and cloud workloads.

Benefits

Capex to Opex
Customer no longer need to setup secondary datacenter & recovery infrastructure.

Flexible Managed Services
Choice between self managed, an Assisted or Fully Managed service.

24x7 access to DR Expertise
Access to our DRaaS support and DR experts when you need them.

Security & Compliance
Industry leading security standards for data in flight or data at rest. Local and global compliance.

Tiered Protection & Recovery
Right from low RTOs for mission critical workloads to desired RTO for your least critical workloads, all within one solution which can be tailored to meet your business demands, SLAs, budget and risk tolerance.

Foreseeable Costs
With DRaaS, operating costs are consistent andpre-dictable. Leverage a DRaaS Infrastructure and pay only for what you need to recover, and when you need them.

Zensar's perspective

Cloud-first DRaaS solutions have proven extremely efficient in addressing recovery solutions for our clients. For instance, our ZeRP offering helped an American sports retail and equipment manufacturing company to implement a one-click disaster recovery solution. The client was encumbered by siloed workloads that made disaster recovery a daunting task. They used several applications that leveraged multiple tiers of technology, resulting in a high degree of technological complexity. Exacerbating this issue was the presence of multiple vendors managing this diverse infrastructure, both on-premise and on cloud. The lack of visibility into application dependency and low public cloud utilization posed further challenges. The ZeRP solution ensured seamless failover and failback of SAP HANA and interdependent systems across cloud, hybrid and on-premise environments. It offered a single unified view for monitoring, capacity planning, and reporting. As a result of the implementation, the client experienced 55% reduction in operation costs and 80% improvement in process efficiency.

Key takeaways

Research and surveys indicate that there is a need for CIOs and stakeholders to:

- Architect a plan for IT recovery to ensure the success of data recovery initiatives. This is necessary for organizations to navigate disruptive events, data loss, and unplanned downtime successfully. Adverse events are on the rise and they must not be allowed to negatively impact or financially burden the organization.

- A data protection strategy combined with IT recovery approaches, allows organizations to simplify the people, process, and technology requirements imperative for digital transformation initiatives. This allows them to succeed over the long term with minimal disruption to business.

- DRaaS is a low budget, compliant, security-focused IT recovery solution for enterprise clients embracing digital transformation.

Conclusion

IT resilience is still a nascent concept for many organizations in today's digital world. Our industry-based maturity model shows that most organizations possess some degree of disaster recovery capabilities, whether it involves tools for data protection, availability, or continuity. Progressively increase in the maturity levels of IT recovery depends on the ability of IT and business units to coordinate recovery operations in a way that minimizes production disruption and data loss. Optimized IT recovery models coordinate the people, processes, and technologies needed to ensure that there is no data loss while delivering levels of data availability that can support the organization's digital transformation initiatives.

The recent survey conducted by Gartner, IDC, and Zerto indicate that most respondents have not optimized their IT recovery strategy, evidenced by the high levels of IT- and business-related disruptions. However, most organizations surveyed will undertake a transformation, cloud, or modernization project within the next two years.
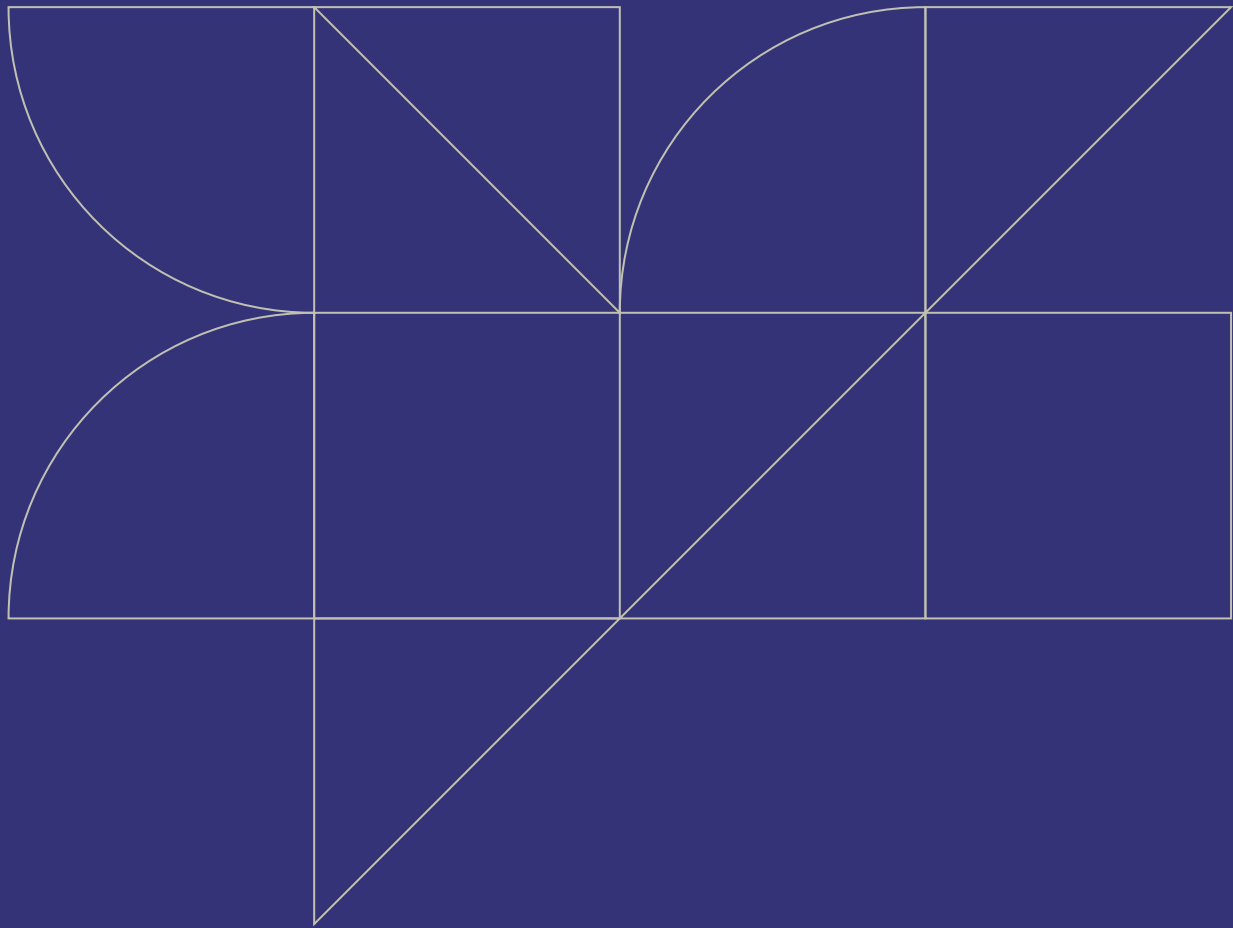
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We conceptualize, build, and manage digital products through experience design, data engineering, and advanced analytics for over 130 leading companies. Our solutions leverage industry-leading platforms to help our clients be competitive, agile, and disruptive while moving with velocity through change and opportunity.

With headquarters in Pune, India, our 10,000+ associates work across 33 locations, including San Jose, Seattle, Princeton, Cape Town, London, Singapore, and Mexico City.

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