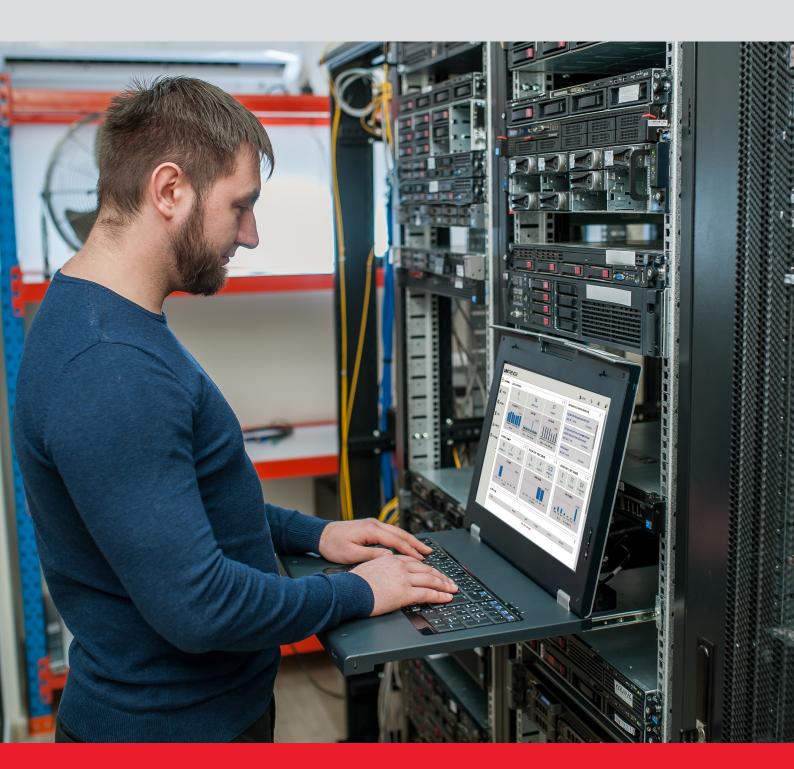# IT Resilience: The Evolved Approach to a $700B Downtime Problem

IT Resilience: The Evolved Approach to a $700B Downtime Problem

"Change is the law of life. And those who look only to the past and the present are certain to miss the future.

- John F Kennedy

Introduction

The science of backup and recovery continues to evolve. Twenty years ago tape systems were the primary backup technology; it was good enough to just preserve your data. Today backup has evolved to include the rapid recovery of not just the data but the applications used to conduct business operations. Backup and continuity solutions have evolved to include virtualization, cloud, deduplication, orchestration tools, and many different types of storage. And the evolution is continuing. This White Paper defines the evolving next innovation in business protection – IT Resilience (ITR) – and why it's growing more important to organizations struggling to protect their data and operations from downtime.
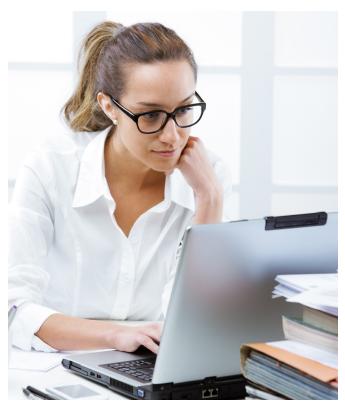
First there was just data backup

Data backup is among the oldest, most performed tasks for IT professionals. Backup and Recovery is a broad process that includes manual and automated tools and techniques to create secondary copies of the data center's data, servers and applications. This market is large, such that it typically grows at less than 10% per year. While large, it is also a fast changing segment as companies have added many new technologies such as disk and cloud-based solutions, array-based snapshot, and server virtualization backup, while leveraging compression, deduplication and other data management technologies. Ease of deployment, with a rapid time to value, and a greater ease of daily administration are key requirements. Today, mission-critical workloads are predom-

inantly being deployed on virtualized servers, making trustworthy, scalable VM backup a must-have.

However innovation has greatly expanded the definition of protection. With new technology has come higher expectations for how completely and quickly data can be recovered – reduced from days to seconds. No longer is it good enough to have just the data backed up, you also need the applications and the infrastructure to run them able to quickly recover performance. Backup started as a process that allowed you to get files, an application or a server quickly. Today, full business continuity is a core part of backup and recovery, which includes making data, applications, and business services available at all times – and from multiple data center and cloud locations. Hence the need for a new focus – DRaaS.

Next came Disaster Recovery as a Service (DRaaS)

It is no longer good enough to just make copies of data. The focus is now on Business Continuity. For DRaaS, the emphasis is on speedy recovery of business functionality. Disaster recovery as a service is, the replication and hosting of physical or virtual servers by a third party to provide fail-over in the event of a man-made or natural catastrophe. The challenge to leading in this market segment is the vendors' ability to provide a single recovery solution for a hybrid combination of virtual and physical systems.

The DRaaS market is highly fragmented, and the wide array of DRaaS provider options can be overwhelming. DRaaS adoption has accelerated, especially for SME customers. Leading DRaaS vendors should be able to give their customers great choice when it comes to recovery services - fully integrated cloud solutions including DRaaS services and integration with public cloud providers such as Microsoft Azure and Amazon Web Services (AWS). The choice is completely dependent on the business goals of each customer.

Some argue that the traditional market for backup and recovery for data centers is being replaced by that for DRaaS. Unitrends does not believe this is true. Unitrends believes that the most forward-looking enterprise-level IT professionals are beginning to work within the more traditional data center frameworks for backup and disaster recovery but are introducing new capabilities with technologies found in an emerging market - ITR.

Now comes IT Resilience (ITR)

Simply put IT Resilience is a set of tools and applications that will automatically take action to protect data and apps to just about any type of issue. Take for example how to IT handles ransomware. ITR automation vendors provide software and services that can support malware inspections that can be performed consistently

on replicated system images, as well as support easy restoration of production data to their state prior to the attack. More broadly, a growing number of ITR automation software vendors are beginning to incorporate support for cybersecurity threat mitigation.

This evolution in backup is being recognized by Gartner Research. Gartner bills itself as "the world's leading information technology research and advisory company." Headquartered in Stamford, Connecticut, Gartner has almost 9,000 associates, including 1,900 research analysts and operates in more than 90 countries.

According to Gartner, "ITRO (IT Resilience Orchestration – Gartner's' name for ITR) automation solutions provide improved IT service availability, recovery and integrity through the automation of application workload fail-over and fail-back. They also provide improved data integrity and consistency between a primary production data center and a secondary recovery site, which may be an internal data center, a provider-managed data center or a virtual data center in a public cloud."*

ITR automation software products, originally built to automate disaster recovery run books, have evolved to support application resilience, workload mobility and workload onboarding between production data centers and public clouds. The ITR market is currently small but gaining greatly in size and importance.
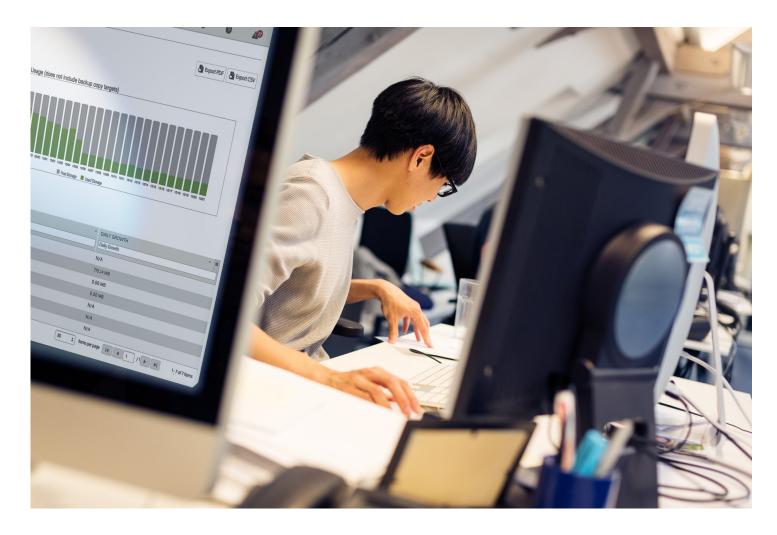
Why you should Care

Gartner is perhaps, most famous for their Magic Quadrants, a report format that evaluates technology vendors from over 60 IT markets into 4 "quadrants". Currently, Unitrends is positioned as a player in the June 2016 Magic Quadrant for Data Center Backup and Recovery Software and as a Visionary in the Magic Quadrant for Disaster Recovery as a Service, also published in June of 2016. Unitrends is also mentioned as a representative vendor in the December 2016 Market Guide for IT Resilience Orchestration Automation.*

(*Gartner, Market Guide for IT Resilience Orchestration Automation, 13 December 2016).

Why does Unitrends appear in all three market reports? Because we believe it's difficult for one vendor to achieve enough competency to address all three sufficiently in a single all-in-one solution to compete with vendors solely focused on that segment. Vendors either lack capabilities, have partners that are too impactful to the business to offer all-in-one cloud services, or simply don't have the resources or expertise to pull it off.

This fragmentation becomes a major problem for the customer. They are now forced to integrate multiple vendors and solutions to achieve IT Resilience. But why? These three markets are natural extensions of each other. You protect on-premises and expect full capabilities across physical and virtual environments. You ensure uptime with disaster recovery – and make sure folks can lean on you to provide the full service around DR, not just a product. And if you do that, why wouldn't you want to ensure that DR processes around fail-over, testing, and compliance reporting are completely automated to create what's now called IT Resilience.

ITR can provide measurable, trustworthy and repeatable RPO and RTO metrics since the technology is automated and should require little to no human involvement. This should lead DRaaS vendors to offer Service Level Agreements (SLAs) for performance since they trust their products to perform. In fact few do with the exception of Unitrends, which offers an SLA with our DRaaS Unitrends Cloud offering. An SLA is an indicator of whether a DRaaS provider offers true ITR.

Unitrends is literally the only product line in the market with the technology, expertise, support, and agility to be able to offer Backup, DRaaS, and IT Resilience. This shows that you can trust Unitrends to build out your continuity from basic backup, to second sites, or to the cloud, and add new IT Resilience resources when you are ready. This is becoming a critical process to increase enterprise uptime and confidence in a world in which IT pros must do more with less.

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