Building a Resilient Data Strategy: Learning from UniSuper's Google Cloud Incident

DATA STRATEGY IS MORE IMPORTANT THAN EVER, BUT MANY OVERLOOK THE "LESS SEXY" COMPONENTS

Across Fortune 1000 companies, nearly 88% identified investments in data and analytics as a top organizational priority in 2023, with over 82% of organizations saying they are increasing that investment (Statista, 2024). The message is simple. Enterprise data strategies are critical to stay competitive in today's digital age. Data strategy reflects a set of principles, policies, and practices that guide the acquisition, storage, analysis, and use of data across organizations. Longstanding tenets of data strategy for financial services firms are to improve data quality and expand data usage. Recent advances in AI and machine learning heighten these tenants' importance and hog the spotlight in most data strategy conversations today (stamp "Mentions AI" on your bingo card). While many focus on revenue-generating components of data strategy, recent events between UniSuper, a large pension fund, and Google Cloud serve as a catalyst to focus on revenue-preserving aspects of data strategy, specifically Disaster Recovery (DR). Revenue-preserving parts of data strategy, like DR, protect Enterprises' rapidly expanding investments in data assets.

LAYING THE GROUNDWORK: "MISCONFIGURATION" OF UNISUPER'S GOOGLE CLOUD ACCOUNT CAUSED DELETION OF UNISUPER'S DATA ASSETS ACROSS GOOGLE'S CLOUD SERVICE

Key Details:

• The "isolated, 'one-of-a-kind occurrence' that has never occurred with any of Google Cloud's clients globally" resulted in the deletion of UniSuper's cloud account (Taylor, 2024).

• Normally, UniSuper has backups duplicated in multiple geographies for instances of disruption or data deletion; however, given that "the fund's cloud subscription was deleted, it caused the deletion across both geographies" (Taylor, 2024).

•The event caused over a weeklong account outage to ~620,000 fund members (Taylor, 2024).

•UniSuper eventually restored services because the fund had backups with another cloud provider. Upon restoring the outage, members' account balances reflected the previous week's figures, with balance updates occurring "as quickly as possible" (Taylor, 2024).

DATA STRATEGY SHOULD BALANCE INNOVATION AND RISK

To be clear, this event should not scare firms away from cloud technology, but instead prompt discussions about how cloud adoption impacts your business. Cloud services offer scalability, sophistication, cost efficiencies, and flexibility, which are the underpinnings of growth-oriented data strategies. Further, complementary technologies built on cloud architectures can drive impactful business outcomes. Disruption of these technologies has severe consequences, especially those providing significant organizational value. Considering business objectives, strategies to avoid data loss in a Recovery Point Objective (RPO) and targets for reduced downtime during an event, or Recovery Time Objective (RTO), is just the beginning of building a resilient data strategy (Amazon, 2022). Omitting these conversations will breed a fragile data architecture incapable of weathering inevitable headwinds.

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DISASTER RECOVERY WILL NOT PREVENT DISASTROUS EVENTS, BUT IT CAN PREVENT EVENTS FROM BECOMING DISASTERS.

At a high level, disaster recovery strategies detail how organizations deal with "black swan" events (low probability and high impact) to ensure the continuity of data operations. Often, the first "black swan" events that come to people's minds are natural disasters, system failures, and pandemics (fresh in everyone's mind). While a good starting point, some often forget the most significant operational risk of all: human error. It takes considerable creativity to consider all the potential errors people can introduce into a data workflow, so planning for them is difficult. No matter the nature of the event, outages, and failures erode consumer trust and tarnish the reputation organizations work so hard to uphold. By expecting failures, resilience is embedded into data strategy and can help reduce recovery time, meet recovery point objectives, and foster unbroken trust from consumers.

"IT IS GOOD TO LEARN FROM YOUR MISTAKES. IT IS BETTER TO LEARN FROM OTHER PEOPLE'S MISTAKES." WARREN BUFFET

In the case of UniSuper, they had a DR plan that accounted for a disaster that affected the entirety of their Google Cloud Data Assets, which is why they backed up with another cloud provider. But, given the low probability nature of the event, the RPO was less rigorous compared to the regional backups they had through Google Cloud. This made the event of Google Cloud removing their account more impactful than had they created a more rigorous RPO for the scenario.

From Google Cloud's perspective, they are a leading cloud provider with sophisticated DR for their clients, employing an assortment of strategies to minimize RTO and avoid data loss with an ultracareful RPO. Not accounting for this unique human error created a flaw that rendered their DR plan ineffective. Learning these lessons from the case of UniSuper and Google Cloud grants the gift of hindsight and enables more complete disaster recovery plans for all who head this guidance moving forward.

FINAL REMARKS. DISASTER RECOVERY IS IMPORTANT. DO NOT FORGET IT.

Now more than ever, firms recognize that data should be treated as an asset rather than a byproduct of operations. Protecting data assets with a resilient data strategy will nurture consumer trust and preserve the revenue firms work so hard to generate. Creating a data strategy that balances innovation and risk will minimize the impacts of unforeseen disasters. Designing an enterprise data strategy that accounts for the growth and protection of data assets is no light lift. It requires the knowledge and ability of those who previously weathered these storms.

APPENDIX

Statista. (2024, December). Global state of data analytics investment from 2019 to 2022. Retrieved from https://www.statista.com/statistics/1453262/global-state-of-data-analytics-investment/

The Guardian. (2024, May 9). UniSuper and Google Cloud issue account access [News article]. Retrieved from https://www.theguardian.com/australia-news/article/2024/may/09/unisuper-google-cloud-issue-account-access

Amazon Web Services. (2022, April 1). Disaster recovery workloads on AWS [White paper]. Retrieved from https://docs.aws.amazon.com/pdfs/whitepapers/latest/disaster-recovery-workloads-on-aws/disaster-recovery-workloads-on-aws.pdf#what-is-a-disaster

Clay Corcimiglia supports Meradia's clients through his proficiency in data mapping, data confirmation analyses, and data visualization to streamline operations between the front and middle office. While working for a global investment manager, Clay worked through Python and SQL to perform data confirmation analysis. Clay successfully evaluated the firm's performance data and provided guidance on best practices for their future systems. Clay enabled the client to achieve their end goal of a new, complete global data integration.