aws partner network | Morris & Opazo

EBOOK:

Backup & Recovery on AWS

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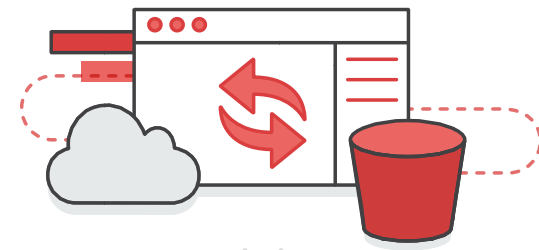
Backup and Recovery on AWS

Amazon Web Services (AWS) backup and recovery services allow customers to leverage Amazon object storage services like Amazon Simple Storage Service (Amazon S3) and Amazon Glacier for cost-effective online storage of their backup data. Storing data in Amazon object storage eliminates the cost and maintenance needed to manage an on-premises storage solution. Amazon object storage is scalable, allowing organizations to use and pay only for what they need.

Implementing a secure and durable backup and recovery solution is useful for organizations in cases of data loss, logical errors, or recovery of data for audit purposes. In addition to Amazon S3, services like Amazon Glacier offer customers storage services for data archiving and long-term backup for small to large amounts of data for significantly less than the cost of on-premises storage solutions.

On-premises storage solutions for backup and recovery often require a large upfront investment and ongoing specialized maintenance, but Amazon Glacier and Amazon S3 allow organizations to pay for storage per gigabyte and eliminates the need for ongoing maintenance. AWS Partner Network (APN) Partners offer solutions that, when combined with AWS, deliver secure, efficient and durable backup and recovery solutions for organizations of any size.

Secure, efficient and durable backup and recovery solutions for organizations of any size.



AWS Object Storage Services

Amazon Simple Storage Service (Amazon S3)

Objects storage designed to store and access any type of data from anywhere on the web. It is designed to deliver 99.999999999% durability and scale past trillions of objects worldwide.

Amazon S3 Transfer Acceleration

Fast, easy, and secure file transfers over long distances between clients and S3 buckets. Transfer Acceleration leverages Amazon CloudFront's globally distributed edge locations, by routing data as it arrives at an edge location to Amazon S3 over an optimized network path.

AWS Storage Gateway

Seamlessly enables hybrid cloud storage with local integration. It combines multi-protocol storage appliance with highly efficient network connectivity to deliver virtually unlimited scalability.

AWS Object Storage Services Cont.

Amazon Glacier
Secure, highly durable, and low-cost storage service designed for data archiving and long-term backup.

AWS Snowball
Secure petabyte-scale data transport solution reducing network costs and transfer times for transferring large amounts of data to the cloud.

AWS Snowball Edge
Secure 100TB data transfer device with on-board storage and compute capabilities.

AWS Snowmobile
Exabyte-scale data transfer service to move extremely large amounts of data to the cloud (up to 100PB per Snowmobile) via a secure 45-foot long ruggedized shipping container.

Morris & Opazo

Your Amazon Web Services (AWS) Partner

We are a company specialized in providing Business Solutions in the field of Information Technologies.

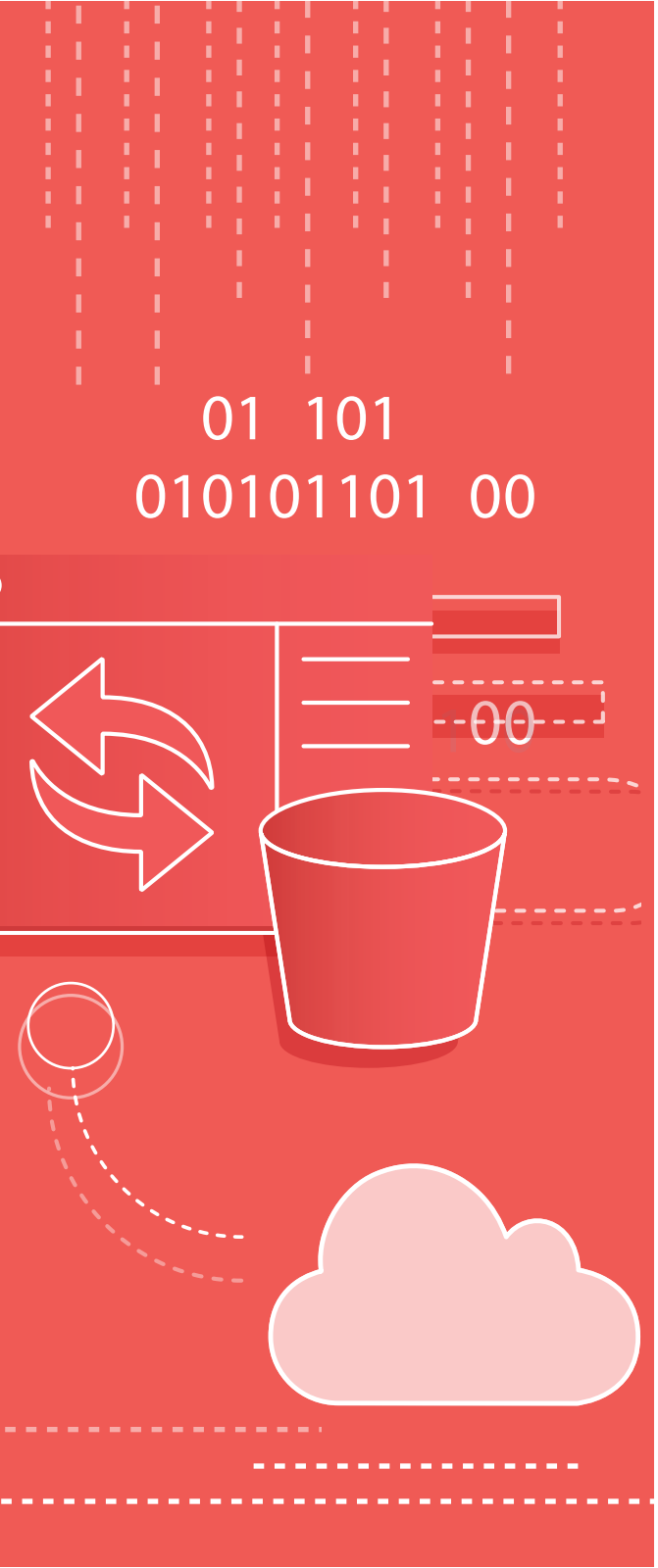
Morris & Opazo is part of the AWS Partner Network, a world-wide network of companies oriented to organizations that specialize in the design and management of platforms on the cloud-based infrastructure of Amazon Web Services.

aws partner network

Advanced Consulting Partner

Channel Partner

AWS competency



Benefits of Working with Morris & Opazo"

Let the experience of Morris & Opazo, an Advanced Consulting Partner of Amazon Web Services, help you in your journey to the cloud.

> Consulting, Proof-of-Concept and deployment of on-demand test en vironments in the cloud.

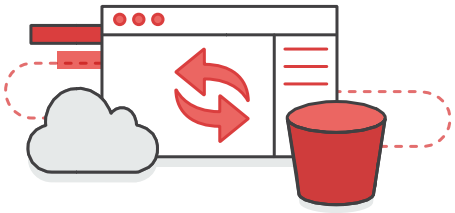
> Technical team with the highest level in all official certifications.

> Access to the global infrastructure of the AWS Cloud with the management and support of a local expert partner.

> Constant optimization of your solution to maximize efficiency.

> Training to learn more about the possibilities the AWS Cloud can offer for you.

> Design and validate your solutions with our Certified Architects.



Success Story:
Cloud-based Solution
"Backup & Recovery on Amazon Web Services (AWS)".

Voice of the customer

> For the first line management at Aguas Araucanía it has been the best and most efficient model to deliver solutions to our clients, at the most convenient costs.
>
> The attitude and quality of the staff from Morris & Opazo has allowed us to execute projects with high quality for the final product, development standards focused on the processes and problems of our organization. Custom solutions have been an answer to the processes where commercial solutions have not.

Fernando Javier Valdés Álvarez,
Corporate Systems Submanager.

About Aguas Araucanía

The Aguas Araucanía provides sanitary services, contributing to improve the life quality of the customers, continuously improving the processes, with the participation of the collaborators and under the compliance of the standards of the Integrated Management System of Quality, Environment, and Occupational Health and Safety.

THE PROBLEM

As "Aguas Araucanía" grows larger, the sizes of their Oracle databases continue to grow, and so does the sheer number of databases they maintain. This has caused growing pains related to backing up legacy Oracle databases to tape and led to the consideration of alternate strategies including the use of Cloud services of Amazon Web Services (AWS), a subsidiary of Amazon.com. Some of the business challenges "Aguas Araucanía" faced included:

> Utilization and capacity planning is complex, and time and capital expense budget are at a premium. Significant capital expenditures were required over the years for tape hardware, data center space for this hardware, and enterprise licensing fees for tape software. During that time, managing tape infrastructure required highly skilled staff to spend time with setup, certification and engineering archive planning instead of on higher value projects. And at the end of every fiscal year, projecting future capacity requirements required time consuming audits, forecasting, and budgeting.

> The cost of backup software required to support multiple tape devices sneaks up on you. Tape robots provide basic read/write capability, but in order to fully utilize them, you must invest in proprietary tape backup software. For "Aguas Araucanía", the cost of the software had been high, and added significantly to overall backup costs. The cost of this software was an ongoing budgeting pain point, but one that was difficult to address as long as backups needed to be written to tape devices.

PROPOSED SOLUTION

"Aguas Araucanía" initiated the evaluation of Amazon S3 for economic and performance improvements related to data backup. As part of that evaluation, they considered security, availability, and performance aspects of Amazon S3 backups. "Aguas Araucanía" also executed a cost-benefit analysis to ensure that a migration to Amazon S3 would be financially worthwhile. That cost benefit analysis included the following elements:

Performance advantage and cost competitiveness. It was important that the overall costs of the backups did not increase. At the same time, "Aguas Araucanía" required faster backup and recovery performance. The time and effort required for backup and for recovery operations proved to be a significant improvement over tape, with restoring from Amazon S3 running from two to twelve times faster than a similar restore from tape. "Aguas Araucanía" required any new backup medium to provide improved performance while maintaining or reducing overall costs. Backing up to on-premises disk based storage would have improved performance, but missed on cost competitiveness. Amazon S3 Cloud based storage met both criteria.

Greater durability and availability. Amazon S3 is designed to provide 99.999999999% durability and 99.99% availability of objects over a given year. "Aguas Araucanía" compared these figures with those observed from their tape infrastructure, and determined that Amazon S3 offered significant improvement.
Less operational friction. "Aguas Araucanía" DBAs had to evaluate whether Amazon S3 backups would be viable for their database backups. They determined that using Amazon S3 for backups was easy to implement because it worked seamlessly with Oracle RMAN.

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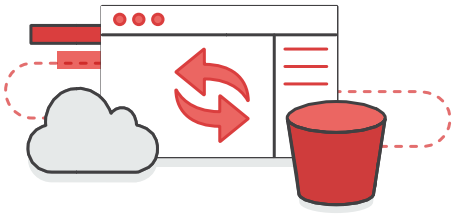

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> Maintaining reliable backups and being fast and efficient when retrieving data requires a lot of time and effort with tape. When data needs to be durably stored on tape, multiple copies are required. When everything is working correctly, and there is minimal contention for tape resources, the tape robots and backup software can easily find the required data. However, if there is a hardware failure, human intervention is necessary to restore from tape. Contention for tape drives resulting from multiple users' tape requests slows down restore processes even more. This adds to the recovery time objective (RTO) and makes achieving it more challenging compared to backing up to Cloud storage.

PROPOSED SOLUTION

Strong data security. "Aguas Araucanía" found that AWS met all of their requirements for physical security, security accreditations, and security processes, protecting data in flight, data at rest, and utilizing suitable encryption standards.

THE BENEFITS

Reduced Hardware Investment

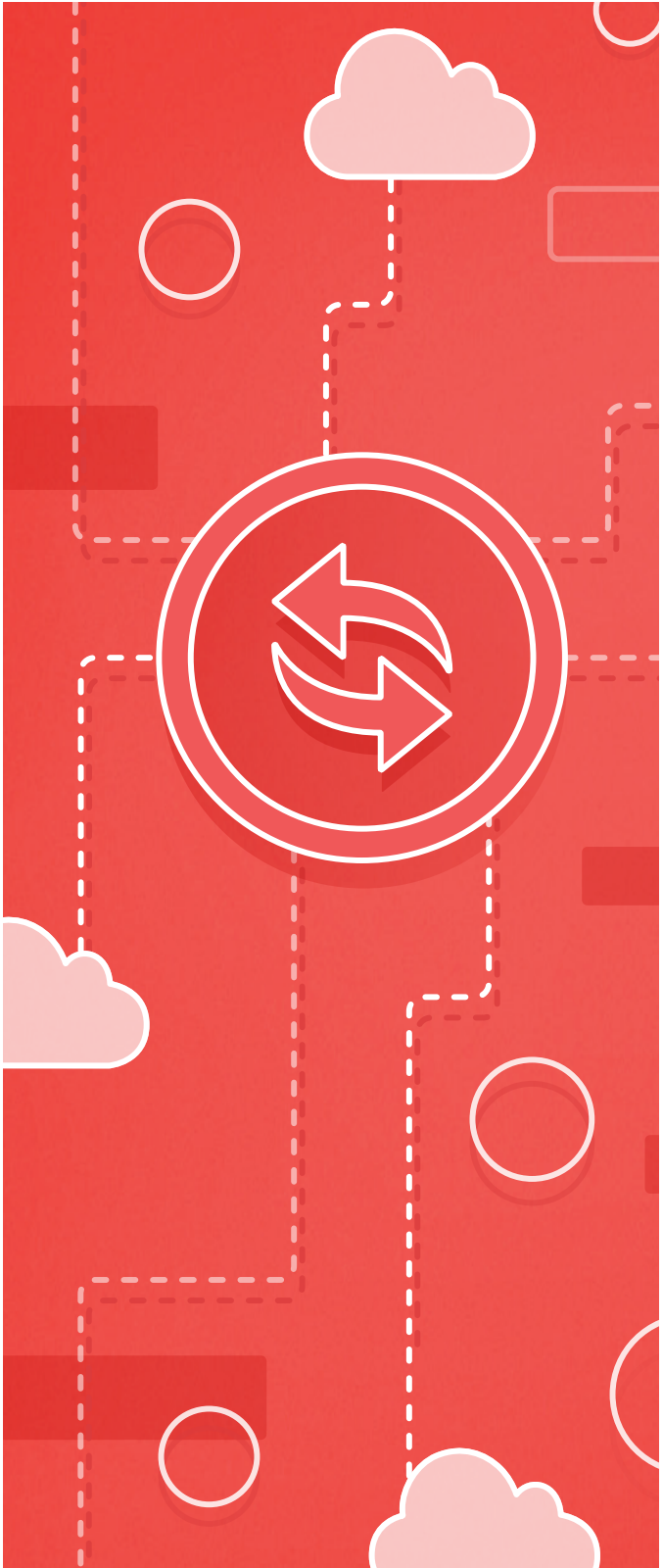
The online, distributed data storage design of the AWS Cloud eliminates the bottlenecks and constraints of on-premises disk and tape solutions. Instant replication ensures your data is safe by automatically generating three copies of your data to different AWS Regions.

Faster Data Recovery

Amazon S3 gives you control over the region in which your data resides, to minimize network latency for easier and faster data recovery. Online storage provides faster recovery than that of tape, with millisecond latency.

Lower Operational Costs

Use a solution you know and trust, now with AWS as the storage target. Pay-as-you-go pricing ensures you only pay for the resources you consume, eliminating the need to overprovision for peak demand. Lifecycle policies automate the migration of data between storage tiers to remove manual overhead, minimize management complexity, and further reduce costs.



Getting Started

For more information about Data Lakes on AWS, visit:

> Amazon Web Service Website

> Big Data on AWS

> Building a Data Lake on AWS (Video)

> About AWS

About AWS

For 10 years, Amazon Web Services has been the world's most comprehensive and broadly adopted Cloud platform. AWS offers over 70 fully featured services for compute, storage, databases, analytics, mobile, Internet of Things (IoT) and enterprise applications from 33 Availability Zones (AZs) across 13 geographic regions in the U.S., Australia, Brazil, China, Germany, Ireland, Japan, Korea, and Singapore. AWS services are trusted by more than a million active customers around the world – including the fastest growing startups, largest enterprises, and leading government agencies – to power their infrastructure, make them more agile, and lower costs.

To learn more about AWS, visit aws.amazon.com