How Essilor Ensures Their Critical AWS Applications are Always Available

They have a large-scale environment with complex needs. N2W allowed them to reduce server refresh time by 99% and increasing cross-region DR efficiency by 10X.

essilor

10X FASTER

With N2W, Essilor can perform full restores on 100 EC2 instances 10 times faster than before.

99% REDUCTION

Refreshing a non-production server with 2TB data volume, used to take a day. Now with N2W it takes less than 10 minutes —a 99% reduction.

"Thanks to AWS and N2W, backup is no longer a nightmare (like it used to be when using our on-premises datacenter). In fact, it's one of the easiest items to tackle."
—Jacques-Olivier Legrand

The company

Essilor Group is the world leader in ophthalmic optics, with ~74,000 employees and centers around the world. They distribute products in more than 100 countries. The Essilor Group designs, manufactures and markets a wide range of lenses to 'improve lives by improving sight', as their mission statement says. Founded in 1849, Essilor develops and markets equipment for prescription laboratories, as well as instruments and services for eye care professionals.

The challenge: serving 300 million global customers

Essilor has been at the forefront of developing innovative eyecare solutions for over 170 years, and they take this same approach to the management of their IT infrastructure.

Migrating business-critical applications to AWS

Essilor has migrated some of their business-critical applications to AWS. These applications are used to take and process orders. As they have a responsibility to over 350,000 eye care professionals, who expect the Essilor systems to be available 24/7, rapid recovery is a necessity.

"Essilor needs to make sure orders can be properly processed by doing some real-time calculations. In case of any downtime, order taking and processing can be highly impacted," according to Jacques-Olivier Legrand, Solution Architect at Essilor.

> **"Ensuring we have a reliable and easy way to recover across regions on AWS and achieving a short RTO are highly important."**
>
> Jacques-Olivier Legrand, Solution Architect at Essilor

Essilor's large AWS environment is particularly challenging with complex policy needs

Their global deployment includes 3 geographies (Americas, Europe and Asia), more than 20 AWS accounts and 1500 EC2 instances and about 30 VPCs. Essilor uses different policies to back up both production and non-production workloads. They use different policies for each type of workload, and schedule daily, weekly and monthly backups.

Maintaining high availability using manual scripting was not a viable solution

Prior to using N2W, Essilor had created an in-house solution with custom scripts to manage the backup and recovery of their AWS workloads —this was comprised of a Cron-based tool with EC2 instance tags.

This manual approach presented the IT team with several challenges as their scripted solution did not have the functionality needed to protect their growing environment in AWS.

5 critical downfalls of using a custom scripted solution:

1. Lack of centralization
2. No ability to create policies
3. No cross-region disaster recovery (DR)
4. No easy method for cloning VPC settings
5. Poor RTO due to manual orchestration of restore processes

Legacy backup software was not enough

Initially, Essilor considered using their existing well-known on-prem backup solution for AWS, too. Essilor found that while this solution works very well for their on-prem environment, it was not 'cloud-oriented' and does not smoothly align with AWS. They wanted a tool that is based on AWS snapshots and would better fit their needs.

> **"Expanding cloud-adoption across our large organization is an important objective. We needed a solution that fully aligned with AWS and could easily support it."**

The solution: scalable, fast, reliable, and cloud-native

With their cloud-first strategy, they needed a solution that made it easy to onboard other Essilor regions and scale their AWS deployment. They found exactly the tool they needed with N2W in the AWS Marketplace. N2W provides enterprise-grade backup and disaster recovery for AWS using native snapshot technology to provide a complete backup and disaster recovery solution.

> **"Thanks to AWS and N2W backup is no longer a nightmare (like it used to be when using our on-premises datacenter). In fact, it's one of the easiest items to tackle."**

The results

Cross-region restores of 100+ instances are now 10x faster

At first, Essilor liked the fast and easy restore of full instances, which is 10X faster with N2W. Now they use N2W much more broadly. "We executed a complete cross-region recovery drill (Ireland to Frankfurt) for our most critical application, utilizing hundreds of EC2 instances and lots of other AWS services," explained Jacques-Olivier. "Validating the process and restoring the full environment on another region took only 2 hours using N2W, instead of 2 days —with zero learning curve."

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N2W integrates easily into their existing tech stack using API

Looking deeper into how Essilor implement their DR with N2W, Jacques-Olivier notes the usefulness of the N2W API. "The DR is done by combining Terraform, N2W and AWS CLI, allowing us to easily restore hundreds of servers with the N2W API".

99% reduction in database refresh time

Having both production and non-production environments on AWS, Essilor ensures the non-production environment can be refreshed on a weekly basis to avoid large gaps between these two environments.

Another interesting use-case for N2W was found in significantly reducing refresh time for instances running SQL Server. Refreshing a non-production server with 2TB data volume, used to take a day. Now with N2W it takes less than 10 minutes, 144 times faster than before!

Mandating the use of "best tools" across a global organization

As Essilor scale up their AWS deployment, they realized that at this scale they need consistency across the organization, for that reason they build 6 months ago an internal Cloud Center of Excellence (CCOE) with 2 main goals.

1. To directly operate the most critical applications in their cloud environment. Disaster recovery of these applications being one of the critical use-cases. N2W is being used directly by the CCOE to execute recovery drills of critical applications.
2. To provide a central guidance and best practices, serving as 'blueprints', to Essilor regions on how to use AWS, which tools and services to use and which procedures to follow. Backup on AWS was one of the first procedures addressed by the CCOE, instructing any group implementing backup to use N2W for consistency across the organization, Essilor Asia being a recent example of receiving and following such guidelines from CCOE.

Freeing up time and resources to focus on long-term vision

Essilor value the simplicity that N2W provides to help protect their growing AWS environment. By partnering with N2W, Essilor has the reassurance that their AWS data protection needs are taken care of, allowing them to focus on the company's long-term vision.

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