Transdev Keeps the Wheels Turning With AWS-Integrated DR Solution for Critical SAP Workloads

Overview

With billions of passengers around the world relying on Transdev business continuity to get to schools, jobs, and vacation destinations, Transdev can't take risks with their IT availability. When the time came to refresh their disaster recovery (DR) infrastructure, Transdev turned to Gekko to help them design a reliable, cost-effective, AWS-integrated DR strategy.

After testing their most complex workloads with multiple potential solution providers, Transdev and Gekko ultimately chose CloudEndure Disaster Recovery, which was the only technology that could dependably handle failover and failback of their critical MSCS (Microsoft Cluster Server) workloads into AWS. Transdev customers can now rest assured that their transportation provider has prioritized keeping them on the go.

Company

Transdev is an international transportation company headquartered in France, with 85,000 employees in more than 20 countries. The company operates a wide range of urban, intercity, and interregional mobility solutions, including bus routes, long-distance coach lines, light rail frameworks, bus rapid transit (BRT) lines, tram-train lines, metros, ferries, and self-service rentals of bicycles and electric cars. Transdev transports approximately 3.5 billion passengers per year, and in 2017 generated close to $8 billion.

Gekko specializes in consulting and engineering cloud integration and DevOps solutions, primarily for enterprise and startup IT environments. The company is headquartered in France, with customers around the world.

The Challenge

With 1000+ servers spread throughout France, the main goal of Transdev's DR project was to reliably secure the servers running the most critical workloads in corporate data centers, at the lowest possible cost. After years of using a traditional on-prem DR strategy, Transdev decided it was time to look into leveraging the public cloud for DR. Several factors went into this decision.

First, they were attracted by the lower DR infrastructure costs afforded by the pay-as-you-go cloud model. Second, since they had an AWS migration project underway, they wanted a DR solution using AWS as their DR target site. Finally, Transdev had to resolve the compatibility issues they were experiencing between their primary on-prem data center and their target on-prem DR site, since the primary site had been refreshed at the infrastructure level while the target had not.

As Matthieu Traverse, Lead IT Architect at Transdev, describes, "we identified that the cloud was the right strategy for the evolution of our internal IT infrastructure, and since we needed to refresh the DR infrastructure, we took the opportunity to build it directly in the cloud... We wanted to create something that would not lock us into the old world." As a result, Transdev turned to Gekko for disaster recovery expertise, and to help define, orchestrate, and build a new cloud-based DR strategy. Traverse worked with Julian Favre, co-founder and managing director of Gekko, to find a DR solution that would protect Transdev's IT environment.

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> **Matthieu Traverse**
> Lead IT Architect at Transdev
> transdev

Transdev's Challenges

- Resolving compatibility issues between primary and target DR data centers
- Achieving financial savings without lock-in
- Utilizing AWS as DR target site
- Protecting critical Microsoft Windows workloads, including Active Directory, SQL Servers, MSCS clustered SAP workloads, and niche applications

CloudEndure's Solution

- 73% savings estimated as compared to an on-prem solution
- Sub-second RPOs and RTOs of minutes
- Point-in-time recovery in the event of data corruption or ransomware
- OS-level, continuous replication of all MS workloads and applications
- Customizable APIs

The Solution

Transdev and Gekko reached various dead ends when seeking solutions that could effectively shift their DR into AWS. Although they performed POCs and demos with several different companies, none were able to provide an AWS-integrated solution for their complex Microsoft workloads, or could only do so with unpredictable performance.

Transdev came close to giving up on cloud-based DR entirely, until AWS recommended CloudEndure Disaster Recovery to Gekko. As Traverse explains, "We tried several solutions but did not find anything that we were comfortable with, so we were about to rebuild on-prem. Then Gekko came to us with CloudEndure and the choice was really easy to make."

Transdev chose the toughest and most complicated use case for POC testing: spinning up their SAP BusinessObjects Financial Consolidation (SAP BFC) application running on MSCS infrastructure, to see if it could securely failover to AWS. "We thought that if we managed to validate this most complicated application and most complicated infrastructure, we would be able to do so with every application," explained Traverse.

CloudEndure technology is able to reliably perform this MS SQL Server cluster replication and recovery using proprietary Machine Conversion technology, which is effective for any application.

In addition, part of the POC included Gekko using CloudEndure's open APIs to customize the DR solution for Transdev. As Favre explained, "We developed a new tool based on the CloudEndure API in order to orchestrate, manage, and operate all of the disaster recovery services within the defined recovery objectives." Anything that can be manually configured in the CloudEndure UI can be automated using open CloudEndure APIs, allowing Gekko to customize DR solutions for Trandev and other customers.

The POC with CloudEndure was successfully concluded within one month, after the technology proved its effectiveness in implementing Transdev's most complicated use case, supporting Gekko's additional tooling, and deploying the first 20 machines for DR.

The Results

From deployment of the first 20 servers during the POC, through the completion of the DR project on all critical servers, there were no performance disruptions at any stage of deployment, including during agent installation and initial block-level replication of file server workloads. Traverse added that "Deployment of the CloudEndure solution was really quick," as full deployment was completed within four months.

Transdev's IT environment is entirely built on Microsoft Windows infrastructure. The DR project included Microsoft products such as Active Directory, Cluster Servers, and several SQL Server databases. In addition to the SAP BFC application mentioned above as part of the POC, several lesser-known niche applications were also included in the project.

After completing the project, Transdev was pleased with the cost reduction achieved by building their DR target in AWS with CloudEndure and Gekko, versus meeting the same requirements through refreshing and building an on-prem solution. Regarding the planned costs of each option, Traverse stated that "We estimate that building our DR in the cloud was 73% cheaper than if we built the same solution on-prem."

From Gekko's perspective, Favre added that the key differentiator of CloudEndure is that the technology "works well, compared to all the other tools out there. Plus, CloudEndure is very responsive in supporting and helping customers throughout the build period."

Now that Transdev's critical workloads are protected, they plan to perform two related projects this year. The first is to execute an additional annual set of DR tests, which CloudEndure easily enables at the click of a button, with no performance impact. The second is to deploy new versions of some of their protected applications, and ensure that seamless machine replication and DR protection continues after deployment.

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>
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> Co-founder and Managing Director at Gekko
> gekko

Recommendation

Traverse said that he would "definitely recommend CloudEndure after comparing different DR solutions," adding that CloudEndure is particularly suited to an enterprise such as Transdev, which has complex legacy infrastructure.

Favre explained that Gekko's satisfaction led them to use CloudEndure as the default DR solution for all of their customers. He added that "We manage many different customers for disaster recovery. CloudEndure helps us manage several projects in parallel, using the combination of CloudEndure's strong interface and capacities, plus the tool we built on top of the CloudEndure API."

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