

# DB Systel UK Migrates Data Center to AWS 3x Faster Using CloudEndure Migration

## Overview

DB Systel UK used [CloudEndure Migration](#) to perform an accelerated migration of 400 physical and VMware-based machines to AWS. As part of this project, it moved write-intensive Microsoft SQL Server and Oracle databases, as well as business-critical legacy applications that were running on Microsoft Windows, Red Hat, and CentOS operating systems (OS). DB Systel UK completed the project a month ahead of schedule – seamlessly and with minimal business disruption.

## About DB Systel UK

[DB Systel UK](#) was formed in 2013 as an IT organization to support critical systems used by the Deutsche Bahn (DB) Group to provide transportation and logistics services across Europe. In addition to providing internal IT support to the DB Group, the company also offers a range of managed services externally, such as consulting, migration, and disaster recovery. DB Systel UK takes a cloud-first approach, and is an AWS Advanced Consulting Partner.

## The Challenge: Quickly Migrate 400 Business-Critical Machines to AWS

Before DB Systel UK migrated to AWS, it managed 1,000 servers (for the DB Group and external customers) in a colocation data center. The data center was built on physical and VMware-based infrastructure, and contained a combination of Microsoft Windows Server versions and Linux variants such as Red Hat and CentOS. Production workloads included a large number of significant Microsoft SQL Server and Oracle databases, as well as business-critical enterprise applications used to monitor train and bus routes, dispatch trains, and manage internal revenue systems.

This data center was set to close within a year. Therefore, DB Systel UK needed to utilize this time to assess all workloads, evaluate migration solutions, and completely exit the data center. If DB Systel UK failed to do so by the deadline, it would need to pay extremely high monthly penalty fees.

DB Systel UK took the data center closure as an opportunity to reevaluate its IT strategy. Its customers were interested in using cloud infrastructure, but expressed concern about the possible impact that a move to the cloud could have on their production environment. As Leanne Robinson, Principal Account Manager at DB Systel UK, explained, “Our customers saw the benefits of moving to the cloud, both financially and in order to innovate new services once they were operating on AWS. But their fear of downtime, outside of what was planned, was a big concern.” This included a transportation customer that could be fined millions of Euros if system

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**Stuart Lupton**  
Lead Cloud Architect at DB Systel UK

### DB Systel UK Challenges

- Exit data center within one year
- Replicate hundreds of write-intensive machines simultaneously
- Conduct cutover tests in an isolated environment
- Migrate Microsoft SQL Server and Oracle databases, as well as business-critical legacy applications, running on Windows, CentOS, and Red Hat OSS

### CloudEndure Migration Solution

- Accelerated migration enabled data center exit within 5-6 months
- Shortened cutover window to below 30 minutes
- Supported all workloads running on 400 physical and VMware-based machines
- Provided high resilience to network instability
- Integrated with pre-migration assessment tools
- Enabled unlimited, non-disruptive testing prior to cutover

downtime meant that its buses were unable to check in at regulated points along their routes.

The DB Systel UK team assessed workloads on an application-by-application basis, and analyzed the cost of migrating systems to AWS versus staying on-premises. The team decided to migrate 400 machines to AWS immediately, migrate another 400 machines to a new colocation data center with updated facilities (and move these to AWS at a later date), and consolidate or decommission the remainder of the machines.

### The Solution: CloudEndure Migration, Providing Rapid Replication and Short Cutover Window

Stuart Lupton, Lead Cloud Architect at DB Systel UK, used a data-driven approach to evaluate lift-and-shift migration (rehost) solutions. According to Lupton, "We determined the main business goals and features we required from a migration product. We then calculated a weighted score for each tool we tested, based on the ability to meet these requirements. CloudEndure Migration came out significantly in front."

Lupton continued, "One of our main considerations was the cutover window. CloudEndure Migration was able to provide a cutover window that no one else could. Our customers needed a cutover window of under 30 minutes."

They also selected CloudEndure Migration for its capability to synchronize thousands of workloads in parallel, while allowing them to pause and resume synchronization. It also provided high resilience to network failure during synchronization as well as network throttling. In addition, tight integration with DB Systel UK's application assessment tool meant that the team could apply information from this tool to help build their migration waves. The DB Systel UK team used CloudEndure Migration's non-disruptive testing capabilities to launch workloads in a sandbox area to ensure proper functionality on AWS prior to cutover.

### Results: DB Systel UK Accelerated Migration by 3x, Exited Data Center Ahead of Schedule

Once DB Systel UK decided to use CloudEndure Migration, it had five to six months remaining to perform the migration before the data center exit deadline. When the team began implementation, everything worked as expected. According to Lupton, "There was no business disruption. The agent installation was seamless, with no need to reboot, and there was no performance impact during the sync – it was all invisible to our customers." Robinson added, "We were working on tight deadlines to be out of the data center. Since there was minimal business disruption, our customers were confident in our migration methods. This allowed us to migrate at the accelerated rate we set to meet our deadline."

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As the project progressed, DB Systel UK was able to increase its migration rate by threefold. Lupton said that "CloudEndure Migration's automation – being able to automate the migration with unattended agent installation, API-driven configuration, and post-deployment scripts – meant that we knew that the machines would come up on AWS consistently, and in the state we wanted."

DB Systel UK completed the entire migration project a month ahead of schedule. As a result, DB Systel UK and its customers avoided paying heavy penalties and quickly gained the business benefits of running operations in the cloud. "CloudEndure Migration exceeded our expectations, and we met our deadline for migrating out of the data center," Robinson said.

Following DB Systel UK's successful completion of this migration project, it began to manage additional large-scale AWS migration projects for customers using CloudEndure Migration.

## About CloudEndure

CloudEndure, an AWS company, accelerates the journey to the AWS cloud with solutions that provide business continuity during the migration process and additional protection once there. Enterprises use CloudEndure to replicate their mission-critical databases, including Microsoft SQL Server, Oracle, and MySQL, as well as enterprise applications such as SAP. CloudEndure Migration simplifies, expedites, and automates large-scale migrations from physical, virtual, and cloud-based infrastructure to AWS. CloudEndure Disaster Recovery protects against downtime and data loss from any threat, including ransomware and server corruption. With CloudEndure it's business as usual, always.