



## Migration and co-existence testing for a car rental application suite

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### KEY CHALLENGE

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Testing the *combined* functionality of multiple legacy systems after they are migrated into a *single* new system.



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## Context

The customer is a leading car rental business all over the world and has most of the operations automated by a variety of applications built over several decades. In order to achieve uniformity and reduce redundant features, they have started on a mission to consolidate several backend and frontend systems into one new platform.

Kairos is engaged to perform migration testing and in the process ensure that the old systems can co-exist before the retire incrementally.

## Customer expectations

- Ensure that the old processes continue to operate with similar SLAs (or better).
- Availability of historical data, transactional and analytical, in the new system.
- Compare data views at all layers in the old and new systems.
- Ensure performance and security post migration, besides other cross-functional features.

## Key challenges

- Ensure that all vehicle entities retain their data quality (i.e., no data loss or mismatch).
- We were not provided with detailed data mappings between the old and new systems, making it difficult to prepare test data.
- As a part of consolidating all the old integration channels into one central system, new forms of partner communication was introduced, making the old test scenarios partly obsolete. Test orchestration has become only more complex with this as defect isolation remained a puzzle in some cases.
- Collaboration with multiple vendors in multiple time zones.

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## Value delivered

- ✓ Migration testing best practices and reusable assets from our TCoE.
- ✓ Faster test cycles with a combination of onsite and off-shore testers working 24/7 and sharing the test environment.
- ✓ Data mapping documents that made test data preparation easier, while additionally helping the developers to fix issues.
- ✓ Strategic test management using Micro Focus ALM tools.
- ✓ Quantified and qualified reporting on APIs (functionality, performance, security, exceptions, response data quality etc.) by testing them comprehensively using Postman.

## Futuristic lesson learnt

***Migration always removes certain old functionality at all layers. This is a dynamic and undocumented activity often times, and the test strategy should report and reconcile them with the business expectations.***