engine by Starling

De-risking core banking modernisation

Migration, Managed: The Engine Playbook

Contents

Executive Summary

The opportunity is in front of us, but some might feel like it's a galaxy away. Core banking modernisation is in motion but at an understandably variable pace. Alongside the required level of sustained medium-term investment, the burden of potential migrations weighs heavily, slowing the route to unlocking a whole new world of potential. The risks associated with migration warrant deep consideration, with the potential consequences well-understood and in some respects quite frightening - often thanks to unfortunate headline news of previous attempts gone wrong (the many successful migrations are often the ones you don't hear about!).

However, the risks are not insurmountable. Migration challenges can be addressed with the required level of experience, planning and innovation. When embarking on a core banking migration, there are seven key categories of risk which must be closely managed to ensure a successful transition.

“While complexities associated with legacy technology estates make migrations inherently difficult, these same factors drive the need for change.”

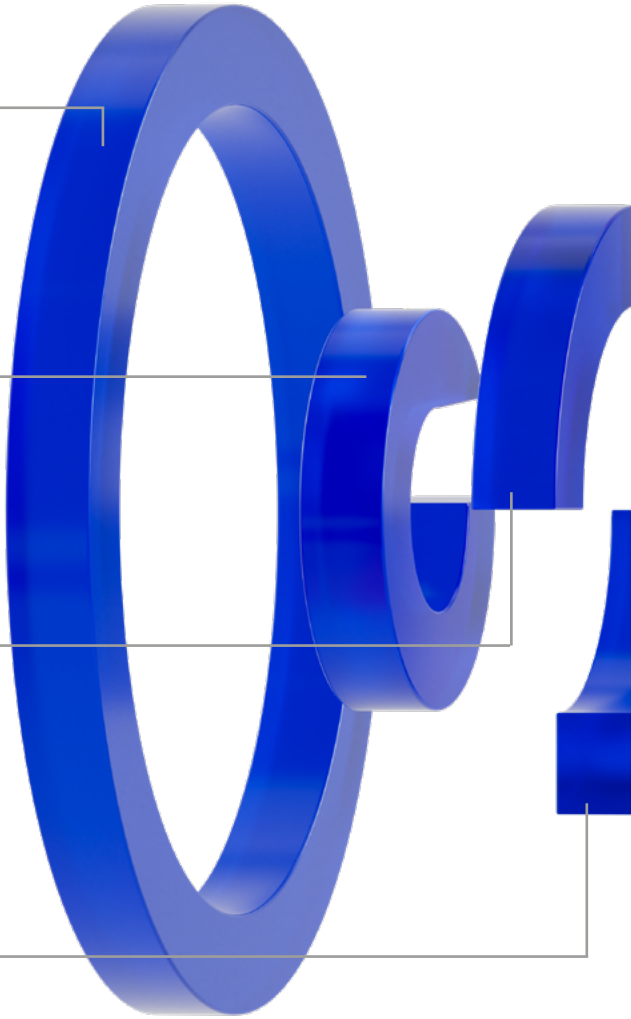
Key Core Banking Migration Risks

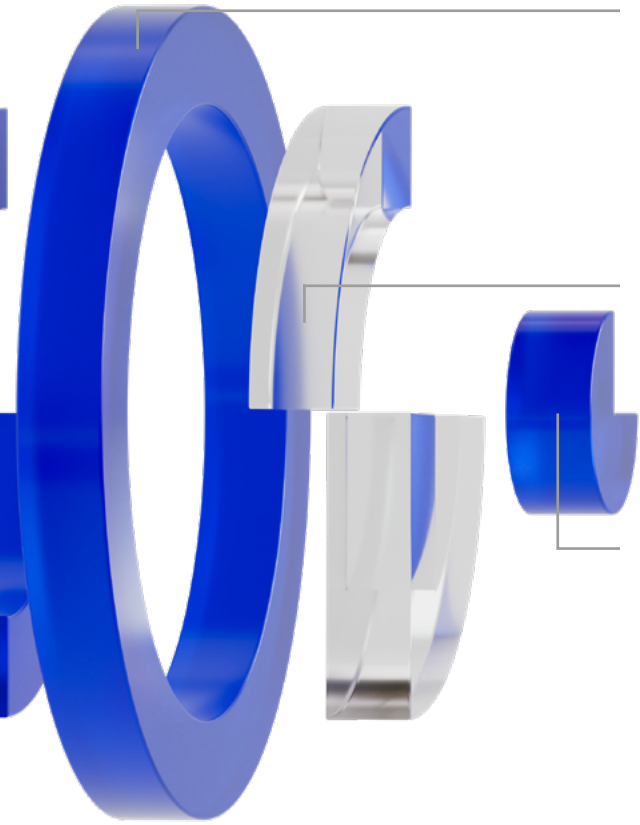
Risk 1
Data Quality and Integrity Risk

Risk 2
Migration Costs

Risk 3
Unplanned Downtime and Service Disruption

Risk 4
Historic Data Retention





Risk 5
Replicating Products and Financial Positions

Risk 6
Payments and Cards Continuity including In-flight Transactions

Risk 7
Customer and Operational Impact and Behaviours

A large portion of migration risk is caused by factors that underpin the need to migrate. Highly complex and entangled legacy systems are often poorly understood (with a limited pool of expertise and institutional knowledge) and have been subjected to decades of under-funded transformation, which makes ongoing change slow, costly and often highly vendor-dependent. Data quality in legacy systems has been impacted over time by changing servicing trends and aged manual operational processes with limited controls. On-premise platforms, or platforms designed for on-premise infrastructure, do not always have scalable processing capacity, making them inflexible to demand. While complexities associated with legacy technology estates make migrations inherently difficult, these same factors drive the need for change. Incumbent systems are not meeting the banking demands of today and are constraining financial institutions from driving towards value.

We believe Engine by Starling (commonly known as Engine) is the world's most mature cloud-native banking platform, providing an opportunity to move away from the limitations of legacy technologies. Built to power Starling Bank, one of the most successful UK digital banks, the Engine platform provides a fully-functional and end-to-end 'off the shelf' banking offering. Engine has been proven to enable high levels of employee and customer satisfaction, at a low cost to serve, at scale, and with unrivalled levels of resilience and scalability. With proven success in the UK, Europe and APAC, and with further global expansion on our roadmap, Engine provides much more than a complete banking platform: it brings a deep understanding of how to run a modern digital bank through its relationship with Starling Bank.

1 | https://www.starlingbank.com/current-account/personal-service-quality-survey-results/

Executive summary

The advantages of cloud-native modern banking platforms are well-understood. We are confident in the benefits Engine can provide to power a bank towards value, having proven our platform with clients in multiple regions. However, the question remains: how do we get there efficiently and safely? The optimal migration strategy and approach is heavily dependent on context; there is no 'one size fits all' solution. For example, Starling Bank has completed two separate and successful card migrations to the Engine platform via different approaches; this is due to varying factors underpinning each migration. One approach involved large groups of customers going live at the same time, while the other deployed a migration on a customer-by-customer basis. Irrespective of the shape of the migration, the risks are ever-present and must be carefully managed.

In this paper, we provide Engine's perspective of core banking migrations in the context of risk. We outline the design principles behind Engine which make it well-suited to support migrations. We also hope to offer an insight into the broad and deep migration experience of our team: we are a willing partner who understands the challenges, hazards and the 'hard yards' which must be overcome to successfully deliver a core banking migration. Going back to the galaxy analogy, whilst the journey ahead may look daunting and at times unknown, with Engine you can chart a course to a whole new world of possibilities.

Executive summary

Examples: Migration in practice

How to use this paper:

We'd like to provide you with some guidance on how to make the most out of this paper; think of this as your guide to the migration galaxy. The process of migration, both the theory and execution of it, is complex, and we've set out to demystify it through this paper. Follow these guidelines to understand how we've addressed the challenge, with real world examples to bring the theory to life.

The seven risks: mapping out migrations

We have approached Engine's perspective on migration projects through the notion of migration risks. Throughout this paper, we discuss the seven risks we have identified as common sources of challenge for banks around migrations. We advise you to progress through this paper with these risks in mind, and the knowledge that a single migration project can carry with it any number of these risks, or even all of them. From cost implications, to customer disruption and company reputation, these risks set a useful framework to think about the technological and organizational changes inherent in migration projects.

Bringing it to life: LocalBank and Bank of Ameland

To better contextualise these risks, we've brought their elements to life with two fictional banks, LocalBank and Bank of Ameland. These two bank examples serve to exemplify the types of clients that often find their attempts to modernise stymied by these risks. Whether a large Tier 1 bank with a customer base of millions, like Bank of Ameland, or a trusted local community bank with a smaller but loyal set of customers, like LocalBank, these organisations face similar risks in their journey to modernisation.

We have found it can be easier to appreciate the gravity of these risks by walking in the shoes of a living, breathing organisation. In the abstract, modernisation through migration is a no-brainer; for a bank prioritising continuity and reliability of systems, seamless customer experiences and a strong balance sheet, migration looks less simple. This is where Engine can help. Both LocalBank and Bank of Ameland could utilise Engine support to perform safe and successful migrations, and mitigate the above risks.

Sequencing migrations: taking it step-by-step

The last aspect to keep in mind is the sequencing of events - whether thinking pre-migration, during-migration (i.e. the 'migration event', which refers to the live point of cutover to Engine), or post-migration. Effective sequencing is essential for ensuring a successful migration. Large-scale migrations are like an opening-night performance, requiring months of preparation and rehearsals in the build-up and a period of recovery following. Within this paper, we set out 'the script' by outlining distinct activities involved in all three of these stages, for LocalBank and Bank of Ameland.

Why Engine?

Within the context of the multi-faceted migration risks, examples and sequences, we have also taken the opportunity to explain why the Engine platform design is particularly well-suited to support migrations. Reasons why Engine is an ideal target partner of choice for core banking migrations are discussed throughout the paper, but include examples such as:

- **The level of certainty provided by a complete banking platform** means banks can achieve successful migrations with lower upfront implementation effort, significantly offsetting cost and timeline risks.

- **The extensibility of the data model and flexibility when loading data (e.g. order, completeness)** means localisation requirements can be met whilst offering flexibility around which data is loaded and when.

- **The comprehensive suite of APIs** offered by the Engine platform can be configured to support data syncing requirements as well as real-time reconciliations for migrated data.

- **Engine's cloud native design is resilient and robust.** Services are built to anticipate, expect, and isolate failure using defensive mechanisms. For example, asynchronous transactions, eventual consistency or idempotent operations. Isolation of issues via Engine's event-driven architecture means identifying and containing problems is simple and quick.

- **Engine's flexible and modular product configuration capability** allows for new products to be created to best replicate legacy product types.

- **Engine addresses the constraints of legacy technologies and enables clients to meet their strategic business objectives** via greater agility and improved product and servicing offerings. The platform can unlock business value to significantly offset migration costs and set the path to faster return on investment.

- **Engine benefits from the best-in-class customer and user experiences** created through innovation at Starling Bank. Using the Engine platform provides banks with simplified experiences, accelerating digital adoption and growth into new customer and product market segments alongside migration.

- **Engine's Management Portal has a user-centric design** to help colleagues provide the best customer experiences possible. Engine provides high levels of operational efficiency and a low cost-to-serve, while the consolidated and logical design allows for simplified user experiences with limited training required.

Read more

Interested in the **full playbook**?

To read more, **download the full paper** at
enginebystarling.com/reports/migration-managed