

CASE STUDY

AIB: PAYMENTS TRANSFORMATION PROGRAMME

WINNER OF CELENT MODEL BANK 2018 AWARD FOR
PAYMENTS REPLATFORMING

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CASE STUDY AT A GLANCE

FINANCIAL INSTITUTION	Allied Irish Bank
INITIATIVE	Payments Transformation Programme
SYNOPSIS	AIB had three existing payment platforms, all of which had some issues or limitations. After an independent review, the bank decided to undertake a payments transformation programme, and replace them with a single payments services hub, one of the largest projects the bank had undertaken in recent years
TIMELINES	<ul style="list-style-type: none">• Late 2014: Bank review of current state recommends a new platform• Early 2015: AIB issues RFP for payments services hub• Late 2015: AIB chooses Dovetail Payment Platform from Fiserv• January 2016: Release 1 of the programme starts, and goes live in November 2016
KEY BENEFITS	<ul style="list-style-type: none">• Significant reduction in issues, leading to increase in client satisfaction• STP rate now surpasses 96%
KEY VENDORS	Dovetail Payments Platform from Fiserv

CELENT PERSPECTIVE

- As payment services hubs increasingly are adopted at more banks, Celent is getting an ever growing number of related Model Bank entries. Given the size of the tasks undertaken, and that no two banks' journeys are identical, all are interesting entries and worthy of consideration. Indeed, 2017 was an exceptional year, and 2018 has proven to be even better with many candidates who would have been worthy winners.
- The AIB entry stood out for a number of reasons, not least the aggressive timeline for delivery. While some banks decide to get every detail right, and may take over a year for the first release to go live, AIB had their first release just a year after selecting their vendor. Furthermore, despite the vision of "a payment is a payment is a payment," few banks have yet to move so many different payment types to be processed in a single, common hub.

This was possible because of the way AIB approached the programme. The programme focused on getting the simplest version of those processes that would have the most impact. Additional functionality will then be added in later releases. The process used was also a critical contributing factor. By using an Agile approach, progress was more rapid than a traditional Waterfall approach. Trust was built between the teams that things would be delivered on time and with minimal defects which further supported this approach. This was further accelerated by using cloud-based, automated testing that was triggered whenever there was a code drop. This reduced manual test effort and highlighted defects a lot earlier in the process.

- Celent advises many banks on payment services hub adoption, and we also stress the need for early, demonstrable wins. This programme demonstrated all of this, and is a deserved winner of Celent Model Bank award for Modernising Payments Platforms.

DETAILED DESCRIPTION

Introduction

Allied Irish Bank (AIB) is a financial services group operating predominantly in the Republic of Ireland. It provides a comprehensive range of services to retail, business, and corporate customers, and holds market-leading positions in key segments in the Republic of Ireland. AIB also operates in Great Britain, as Allied Irish Bank (GB), and in Northern Ireland, under the trading name of First Trust Bank. Its purpose, as a financial institution, is to “back [their] customers to achieve their dreams and ambitions.”

Table 1: Allied Irish Bank Snapshot

ALLIED IRISH BANK	
YEAR FOUNDED	1966, a result of the amalgamation of three long established banks: the Munster and Leinster Bank (established 1885), Provincial Bank of Ireland (1825), and the Royal Bank of Ireland (1836).
REVENUE	€2,176 million (2017)
ASSETS	€2,464 million (2017)
GEOGRAPHICAL PRESENCE	HQ: Dublin, Ireland Presence in UK
EMPLOYEES	10,000
OTHER KEY METRICS	297 branches 2.4 million customers
RELEVANT TECHNOLOGIES AND VENDORS	Dovetail Payments Platform from Fiserv

Source: Allied Irish Bank

AIB processes approximately 40% of Ireland’s salary files, and on a busy day will process over 2 million customer payments. If AIB’s payments platform experiences any issues one in two people in Ireland will be impacted. Yet AIB had a complex payments architecture with three different payment engines that all processed different payments types. AIB was looking to implement a simple, efficient, and modern architecture with one consolidated payment engine processing all payment types. The goal of the payments transformation journey was simple: to make the platform as reliable and efficient for its customers as possible.

Opportunity

AIB implemented a first payments platform in 1999 to process high value SWIFT payments. In 2005 a project was undertaken to implement a second payment engine for SEPA Credit Transfers. AIB initially intended that this platform would become a strategic payments hub covering SEPA and then other payment types, but the solution’s limitations meant that its functionality was never extended as hoped.

In order to keep pace with European Payments Regulation (PSD and SEPA), AIB built a third tactical internal payments hub that would allow the bank to meet immediate regulatory requirements and deadlines. This allowed AIB to insulate many of the downstream accounting

platforms and payment hub products and protect them from large-scale regulatory change. As SEPA traffic grew, payment services at AIB and industry level were significantly disrupted.

Maintaining three payment processing platforms was costly and cumbersome. The third party SEPA payments solution and the cross-border payment platform were both customised and off Product Roadmap and expensive to keep up to date. Regulatory compliance, including the annually updated SEPA Rulebook and SWIFT Standards releases, was a growing overhead.

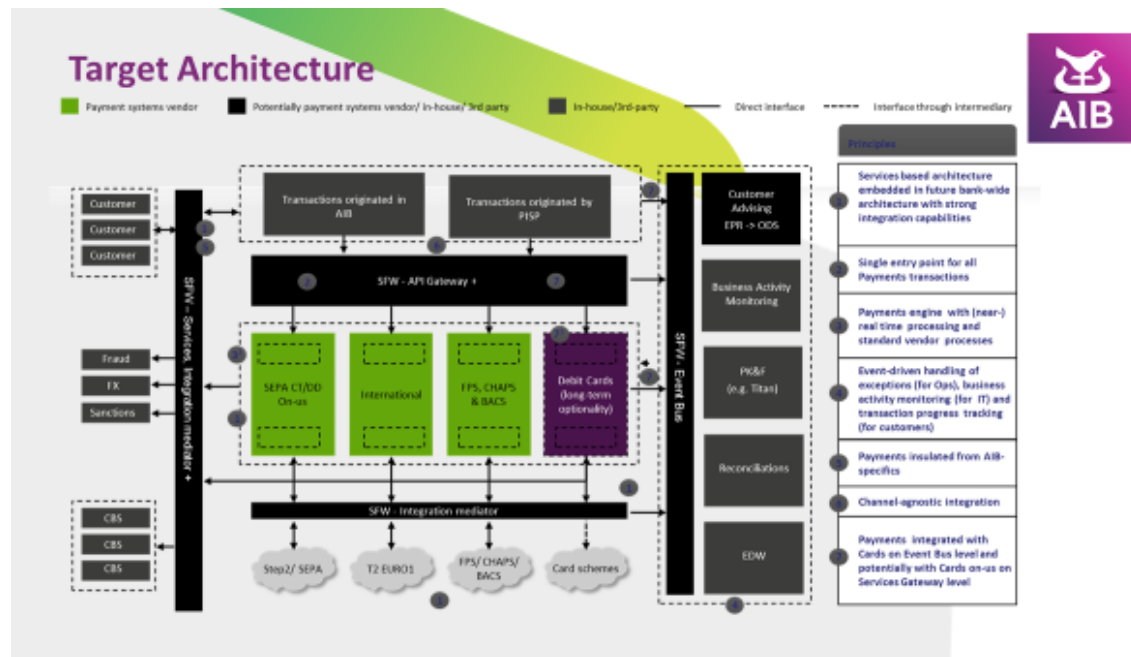
Against this background, after undertaking a huge amount of research and market analysis, and seeking external validation, in 2014 the decision was taken to implement a single payment processing hub to replace the three legacy platforms.

Solution

While the decision to change what the bank already had was hard, the bank realized that the programme would be even harder. Not just would it be expensive — with industry consultants advising projected total spends of €70–90 million — but changes in the market, such as the SEPA and PSD2 deadlines, meant that the process had to be done in a very aggressive timeline. To add to the complexity, the bank was in the process of outsourcing its IT infrastructure application development and maintenance to external partners. Indeed, the payments transformation programme would become these providers' first major project for the bank.

The bank set out a clear target architecture, shown in Figure 1. A key principle was that as much as possible should be standardized. Not just that it should be a single platform processing all payment types, but that it should also have as few points of customization as possible. This requirement would become a key component of the technology selection process.

Figure 1: AIB Payments Platform Target Architecture



Source: Allied Irish Bank

In early 2015, the bank undertook an RFP process, inviting nine vendors to respond. The responses led to five vendors being asked to present to the AIB.

The responses and presentations were judged on a number of key criteria. These included, as mentioned before, a focus on “out of the box” business functionality. It was important to AIB that as much of the capabilities were out of the box solution. These included the ability to process, on a single platform, SEPA, High Value, TARGET2, CHAPS, BACS, and FPS. AIB also wanted to understand how future needs could be incorporated, to ensure that they wouldn’t face issues in the future similar to those they were experiencing today.

This was also linked to understanding the vendor’s implementation process/methodologies. This was of particular concern, given some of the challenges that the bank had suffered in recent years. As a result, there was a focus on demonstrating ways of working, proven implementation timelines, project team sizes, budgets, and an ability to work in an environment with multiple bank partners.

This process quickly narrowed down the list to three vendors that AIB believed could potentially meet the requirements; after further deliberation, the bank chose two vendors to move forward with. In July 2015, the bank did an intensive two-week workshop with each vendor, scoping out the overall engagement in more detail. While the workshops looked at 13 payment processes in total, the workshop did a deep dive on just four, to get to a sufficient level of detail to be able to judge the vendors. One of these payment processes was the top priority payment product for the first release of the programme.

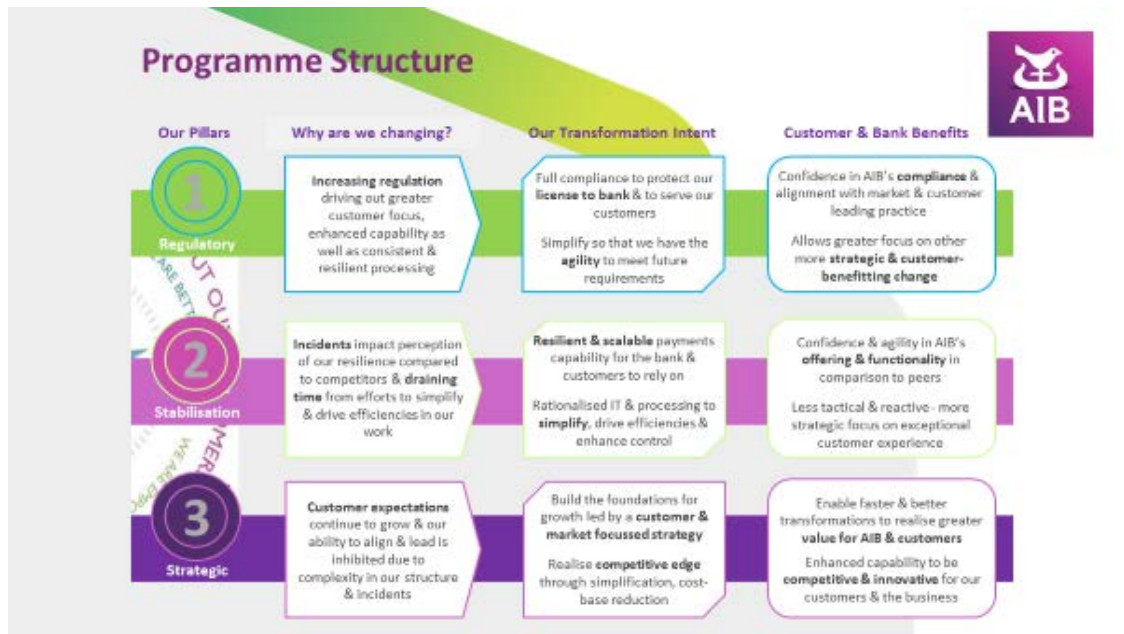
Such was the pace of the process, that despite the workshop taking place in July 2015, AIB contracted with the vendor in October, with a goal of mobilizing the first release in January 2016. This was why the bank undertook the workshop; it would give a good indication as to whether the vendor was responsive and able to keep pace with the aggressive timeline.

AIB eventually chose the Dovetail Payment platform from Fiserv, along with the new Dovetail Integration Management Platform. The solution was seen as a good technical and functional fit with over 400 bank business requirements available out of the box. This meant that the SEPA solution was able to be installed and running onsite in the first few weeks of the project, and allowed the programme to be started very early. The new Integration Management Framework (which AIB was the first customer of) offered the advantage that integration of the payment hub into the bank’s existing systems could also be done at a rapid pace by the bank’s development team, with minimal impact to the bank’s existing systems and without customising the payment hub. Often with customisations, integration becomes more complex.

The project is not just one of the largest investments that AIB has made, but is the biggest and most complex programme currently running in AIB. In addition to Fiserv and their outsourced infrastructure provider, ten other vendors were involved to some extent, with more than 200 people involved. While the goal of the programme is to modernize its payments platform and streamline into one consolidated hub, the programme also had to “keep the lights on” during this multiyear transition to the strategic platform. The programme was split out into three streams (Figure 2):

1. Regulation — keeping the existing legacy systems up to date with regulation,
2. Stabilisation — keeping the existing systems resilient while they continued to process customer payments until migration to the strategic platform was complete,
3. Implementation of the strategic payments platform with a services-based architecture and consolidated payment hub.

Figure 2: AIB Undertook Extensive Stakeholder Management Across the Business



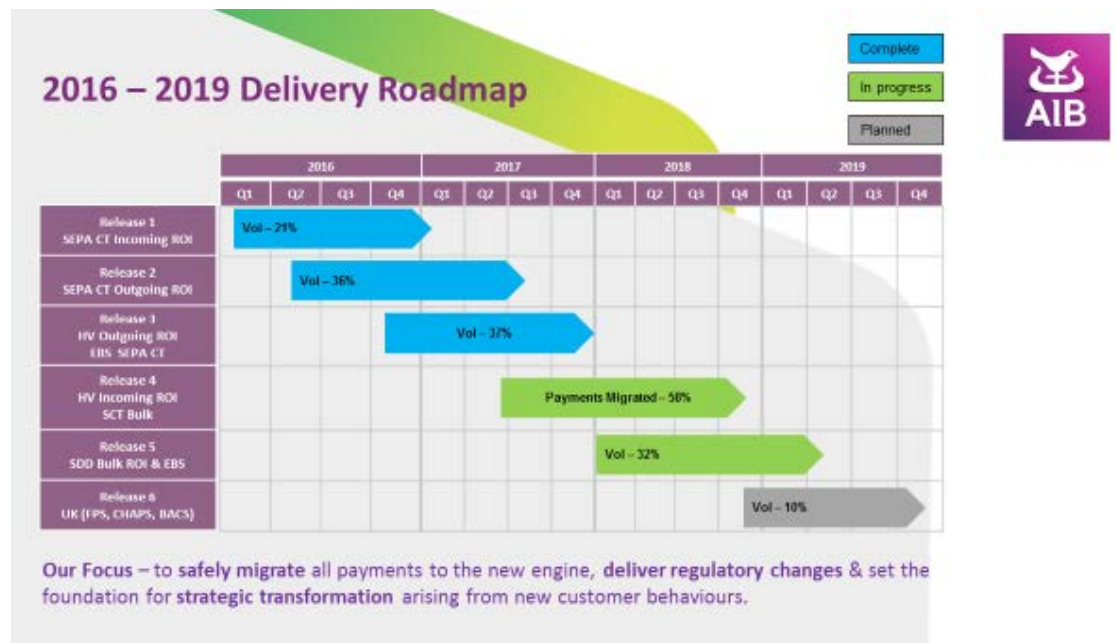
Source: Allied Irish Bank

One of the early decisions, and proven by the workshops, was a collaborative partnership model, based on an agile model. The initial workshop had focused on the first deliverable, so the team had a hot start. The approach was to focus on accelerated predictable release cycles, starting with a prioritized list of processes to build. To meet the target of accelerated regular releases, these processes were approached with two things in mind. First, the bank deliberately pared down to the minimum requirements necessary. Usually banks set out all their requirements, both current and anticipated future, and so the build usually covers all of these. Second, they heavily invested in automation, build, deployment, and testing automation wherever possible. Test automation allowed them to execute testing and get maximum test coverage quickly, exposing defects early. Third, they took an approach of “good enough” to software defects from their partner, rather than trying to fix every single minor detail before the code was approved. Furthermore, the broader team was spread across 7 geographies and 4 time zones, which results in a Payments Transformation working day of 19 hours, with automated testing running 24 hours a day.

This resulted in a much more rapid development process. Paring back also meant that there were far fewer customizations, making the testing simpler, and generating fewer defects anyway. The bank plans to go back at a later stage and the functionalities as required, but again with a view to make as little as possible custom. Long-term this will have other benefits because it will be easier to maintain, and fewer changes will be required as other parts of the bank change.

All this allowed AIB to keep to its aggressive timetable of releases. The releases were programmed to ensure continual work, with no bottlenecks caused by resources or subject matter experts.

Figure 3: AIB Planned an Aggressive Timeline for Delivery



Source: Allied Irish Bank

Figure 3 sets out the timetable that AIB established. To date, no milestone has been missed, and the project remains on budget. Given the aggressive timeline, this is very impressive.

The first release R01, focused on batch processing of incoming SEPA Credit Transfers, and was kicked off in January 2016 and went live within 11 months.

Release 02 dealt with real-time, 24 X 7, low latency payment processing of outbound SEPA Credit Transfers, and went live in June 2017. Release 02 also connected AIB’s customer channels to the Dovetail Payment Solution. November 2017 saw Release 03 go live, with high-value, cross-border payments, considered as a priority release to meet PSD2 compliance.

The future releases address more complex processes. The bank had scheduled the work to balance the highest impact with the less complex processes to ensure early wins, and to reduce the numbers of incidents. This consequently frees up more resource for the later releases.

The future releases include Release 04: scheduled for Q2 2018, focusing on SEPA bulk credit transfers, and Release 05 and Release 06, which cover UK domestic payment types of BACS, CHAPS, and FPS, and SEPA direct debits.

Once this final piece is completed in 2019, AIB will be a model regional bank, having successfully migrated all its diverse payment types to a single hub.

Results, Lessons Learned, and Future Plans

The programme is still ongoing with nearly 40% of AIB’s payments now migrated to the new platform. This has been sufficient for the bank to already realize a number of benefits almost immediately. One of the reasons for the new payments platforms was the number and regularity of incidents that the previous systems were causing. The new platform, despite the “good enough” approach to product development, has already seen a significant reduction in critical, high, and medium payments incidents. In particular, this is reflected in the straight-through processing rate which is now in excess of 96%. A note to the AIB programme board noted that transaction throughputs were now more than double the previous platforms for all payment types.

There are other benefits as well. Having a single platform means reduced costs in support and maintenance over and above the savings accrued for not having to respond to incidents. While there would have been savings in terms of consolidation of hardware, there were actually greater savings achieved. Fiserv worked with the bank's infrastructure provider to host the Dovetail Payments Platform, avoiding significant investment in new hardware. AIB's technology strategy is to run a shared hardware environment where multiple different applications will sit together on the same physical infrastructure. The Dovetail Payments Platform until this project had predominantly been implemented in large banks, and on dedicated hardware. AIB were keen to reduce the technology footprint that the platform typically sits on and host it in a shared environment. AIB, Fiserv, Oracle, and AIB's new IT Infrastructure partner ran a proof of concept with the aim of scaling down the technical requirements while maintaining high processing speeds, as the lower scale target state was significantly cheaper to run. This was a very successful exercise because not only was it proved that it could be done, but also the exact technology requirements of the Dovetail end state and the transition states as for each of the six planned migration releases were successfully established. This meant that the technology requirements were able to be brought on line only when needed, and only what was actually required. Even then, implementing the new hardware and Dovetail application could have been extremely challenging because the bank had recently outsourced its IT department. The Payments Transformation Programme was the first large programme to prove the use the Operating Model. Establishing an efficient way of working was critical to the success of the initial release, given the infrastructure requirements. This allowed the technology partner to do something that we've seen in few other payment services hub implementations — start decommissioning technology as soon as the releases went live. Most hub programmes aren't able to start this process till the very last release has gone live.

Lessons Learned

In terms of lessons learned, moving away from a traditional Waterfall methodology to Agile framework has proven very effective, though a learning curve in itself. On average a release now takes approximately 2 months to settle into production. This is challenging for the programme team because not only do they need to move onto the next release but they also have to help the Production Support team during the first 2 months post go-live. After each release, there is a "lessons learnt" session, which allows process improvements to be incorporated into the next release.

Going forward, having a single solution means less support generally, having moved from three platforms, all of which had their issues. As AIB had ensured that they used as much out of the box as possible only building in products where absolutely mandatory, future releases could be released automatically. For example, as the rule books for SWIFT and SEPA are updated, the Dovetail Payment Solution will be updated centrally first, and then at AIB. With only mandatory customizations at AIB, most changes can be incorporated without major additional testing. Previously AIB would have had to study the changes in detail in order to identify what the impacts might be, and what changes might be required.

A second lesson is that the large investment in automation has been very beneficial, particularly testing on cloud. While still in early stages of use, the cloud has enabled much faster testing, and the ability to automatically trigger the testing when the code is dropped has further improved the time it takes. Furthermore, as the test environment is shared, where there are defects, instead of logs being sent between each party to identify where to look for the problem, the specific pay reference can be used to identify the exact error. While it may seem small, it has made doing "defect triage" much simpler and quicker.

Another highlight of the programme is the bank's Service Integration development, by using development industry best practices and heavily leveraging automation in both environment provisioning (where every environment test and production is built and deployed automatically) and in testing (with over 170 hours of testing running every night) have dramatically reduced integration testing, with only one defect being raised in Release 1 in system test.

The future plans consist of delivering the final releases, finishing in 2019. However, payments are currently facing many changes, and further regulatory mandates are likely in the next five years. AIB now is confident that the new platform positions them to quickly respond to these changes.

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