



CASE STUDY

BMO: DIGITAL TRANSFORMATION IN PERSONAL BANKING

WINNER OF CELENT MODEL BANK 2017 AWARD FOR
PROCESS AUTOMATION

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CASE STUDY AT A GLANCE

FINANCIAL INSTITUTION	BMO, Bank of Montreal
INITIATIVE	Digital Transformation in Personal Banking
SYNOPSIS	BMO has implemented an enterprise wide eForms and eSignature shared services platform in order to provide a contextual and responsive digital user experience across its onboarding process.
TIMELINES	<ul style="list-style-type: none"> December 2015 – December 2016
KEY BENEFITS	<ul style="list-style-type: none"> Increased frontline capacity, leading to more customer conversations and incremental revenue increase up to CAD\$12 million (\$8.9 million)¹. Prospective customers can open a bank account in less than eight minutes using their smartphones. Reduction of errors/irregularities within the personal banking account opening process of up to 80%. Increase in process efficiency of around 40% across personal banking onboarding; with an 80% increase in the audit process.
KEY VENDORS	Quadient®, OneSpan

CELENT PERSPECTIVE

- Banks have struggled to address pitfalls and hassles that underpin the transversal onboarding process. Celent believes that digitizing the end-to-end customer onboarding process will greatly improve user experience, operational efficiencies, and revenue productivity.
- BMO’s submission was based on this premise. The BMO Business Process and Digitization team implemented an enterprise wide digital platform that standardizes and automates processes and provides open access to eForms and eSignature capabilities. The solution has delivered on its goals of improved customer and employee digital user experience, operational efficiencies, and increased revenues.
 - Building on the bank’s strategy to focus on efficiency through technology innovation, process enhancement, and increased digitalization across channels, the initiative set out to identify and improve the digital experience for both its customers and employees.
 - Partnering with vendor software companies Quadient and OneSpan, BMO delivered a straight-through digital onboarding process. To date, the elimination of manual processes has increased overall efficiency by 40%, with an 80% improvement across the audit function.

¹CAN\$ converted to US\$ as of March 13, 2017

- According to BMO's Annual Report², the launch of a contextual and simplified digital account onboarding is a first-of-its-kind service in Canada. BMO customers can quickly search, select and open an account on their smartphones in under eight minutes.
- What really intrigued Celent is the impressive efficiency savings BMO is accruing through the implementation of a digital onboarding platform for Personal Banking. The business case was built using paper as a currency and, after three months in production, the standardization of processes and introduction of eForms and eSignatures has led to the elimination of all paper forms.

²BMO Financial Group Annual Report 2016

DETAILED DESCRIPTION

BMO, Bank of Montreal Introduction

Montreal Bank was founded in 1817 with secured capital of CAN\$150,000 (\$111,741), and became Canada’s first bank. Today, it celebrates a storied 200-year legacy. BMO is the fourth largest bank in Canada and serves more than 12 million personal, commercial, corporate, and institutional customers in North America and internationally. Its acquisition of Harris Bank of Chicago in 1984 and Milwaukee-based Marshall & Ilsley Corporation (M&I) has given BMO a strong presence in the US market.

Table 1: BMO, Bank of Montreal

BMO	
YEAR FOUNDED	Founded in 1817 as the Montreal Bank. This year marks its bicentennial.
REVENUE	CAN\$19,544 million (\$14,559 million), as of October 2016.
ASSETS	CAN\$688 billion (\$512.52 billion), as of October 2016.
GEOGRAPHICAL PRESENCE	Headquartered in Toronto, Canada. Presence across Canada, US, Europe, and Asia.
EMPLOYEES	45,000.
OTHER KEY METRICS	<p>Serves more than 12 million customers through three operating groups: Personal and Commercial Banking, Wealth Management, and BMO Capital Markets.</p> <p>BMO is the fourth largest bank in Canada by market capitalization and asset size. It has strong commercial banking business, ranked second in Canadian market share for business loans.</p> <p>Across Canada, BMO has over 900 branches and nearly 3,300 automated banking machines.</p> <p>BMO group is among the 10 largest banks in the US and serves more than two million retail and small and midsize business banking customers. It operates under the BMO Harris brand with nearly 600 branches and more than 1,300 ATMs. The bank employs 14,500 staff across eight states, with its strongest presence in Milwaukee and Chicago.</p>
RELEVANT TECHNOLOGIES AND VENDORS	<p>Quadient — Inspire Interactive™ and Inspire Designer™</p> <p>OneSpan Sign e-signature software</p>

Source: BMO, Bank of Montreal

BMO’s charter is to focus on efficiency through technology innovation, process enhancement, and increased digitalization across channels. This is the guiding principle behind BMO’s initiative to transform its customer and employee onboarding user experiences. BMO

implemented an enterprisewide shared services platform in order to provide its customers and employees a simplified and responsive digital user experience

Opportunity

BMO recognizes that offering its customers a satisfying digital onboarding experience is table stakes to retaining and growing its customer base. They saw an opportunity to accelerate the deployment of its digital capabilities through the deployment of shared services and digital process automation. For executive management, there is a compelling value proposition that made it easy to approve investment for the initiative:

- Improved efficiency ratios by taking costs out of manual and duplicative systems.
- Enterprise reusability of common technology components and digital capabilities.
- Operational efficiencies would lead to increased productivity.
- A more complete and satisfying digital customer and employee user experience.
- An increase in customer digital usage, adoption, and loyalty.
- Greater shareholder value.

Saving the Forest

An unusual ROI was calculated based on paper consumption. BMO uses approximately 1.6 billion sheets of paper a year. According to the project team's calculations, if laid end-to-end, it could pave a paper path to the moon and back. Assigning a piece of paper the value of 0.08 cents (based on cost for printing, scanning, transferring, storing, and destroying paper), once all products have been converted to eForms, the reduction of paper in its retail branches would save the bank CAN\$132 million (\$98.2 million) a year.

The Team

The initiative was driven by a cross-functional team with representatives from business and technology departments of the bank. The core team was 15 people strong, and over 60 employees were involved in the project at various stages of its build. The initiative was led by Abe Karar, Director of Business Process and Digitization and Head of the newly founded Enterprise eForms Center of Excellence. The executive sponsor for the initiative was Curtis Murphy, Head of Business Process and Digitization.

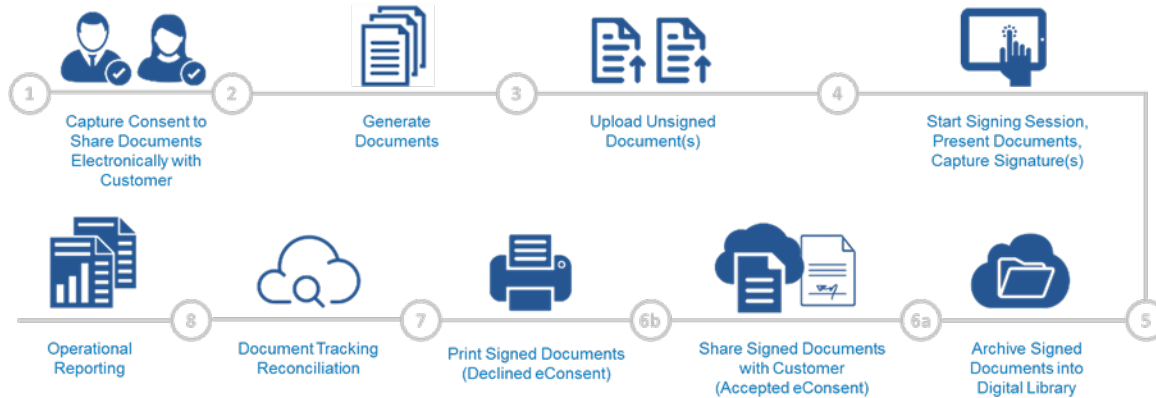
Solution

The first phase of the initiative was launched across BMO's mobile customer onboarding application. From a smartphone, customers can open a banking account in the time it takes to drink a cup of coffee — assuming no spills. The steps below show the digital onboarding process:

- Capture customer information.
- Validate identification.
- Generate account opening digital documents.
- Obtain the customer's eSignature.
- Open the account in real time.
- Sign customer up for online banking.
- Issue and mail bank card.

Figure 1 illustrates the streamlined workflow. The process captures the customer's consent to share documents; the documents are then generated and uploaded for electronic signing and backup. Once the customer has signed, the documents are archived. Completed documents are shared with the customer, either electronically through BMO's online banking portal or printed depending on their consent preference. The documents are tracked, reconciled, and, where appropriate, extracted for operational reporting.

Figure 1: Standardized End-to-End Process Delivers a Simplified Digital Employee and Customer Experience



Source: BMO, Bank of Montreal

The modular design of the platform enables lines of business to follow the same workflow and to have access to the eForms and eSignature platform, regardless of the channel used by the customer or product chosen. The consistency of processes and user experience enables faster and smarter deployment of BMO's digital capabilities and has led to notable improvements in the compliance and audit processes.

BMO Did Not Go It Alone

BMO partnered with Quadient and OneSpan to design a universal enterprise platform that offers standardized eForms and eSignature and plug-and-play microservices capabilities. Examples of microservices offered include document storage and document tracking across customer-facing and back end systems.

BMO deployed **Inspire Interactive**, a thin client, self-service customer communications portal, and **Inspire Designer**, to create elegant, standardized eForm designs that are rationalized, dynamic in nature, auto-populating, and QR-coded to simplify how BMO ingests documents.

With the implementation of Inspire Interactive, nontechnical users, such as product and process owners, are able to access document templates and make changes to the templates on the fly. These changes are tracked and sent through an automated approval workflow that ensures all reviews and approvals are obtained from BMO's legal, compliance, audit, marketing, branding, business, and IT departments. Once approvals and sign-offs are in place, the eForm templates are promoted into production for bank use. BMO adapted the eForms and eSignature capabilities so that they could create tailored templates for new use cases. Ease of use for customer and employee was paramount to the design.

The flexibility of the **OneSpan Sign Software** product meant that BMO could immediately eliminate paper forms. It was important to BMO that the modular build of the eForms and eSignature capabilities renders them highly reusable across the organization, allowing BMO to be more innovative in the way it offers the solution. BMO has realized a 20% to 90% rationalization of forms. The percentages are derived depending on the line of business, number of forms required to be consolidated, and regulatory requirement. Furthermore, the reduction in form maintenance has brought about a correlation in increased efficiency.

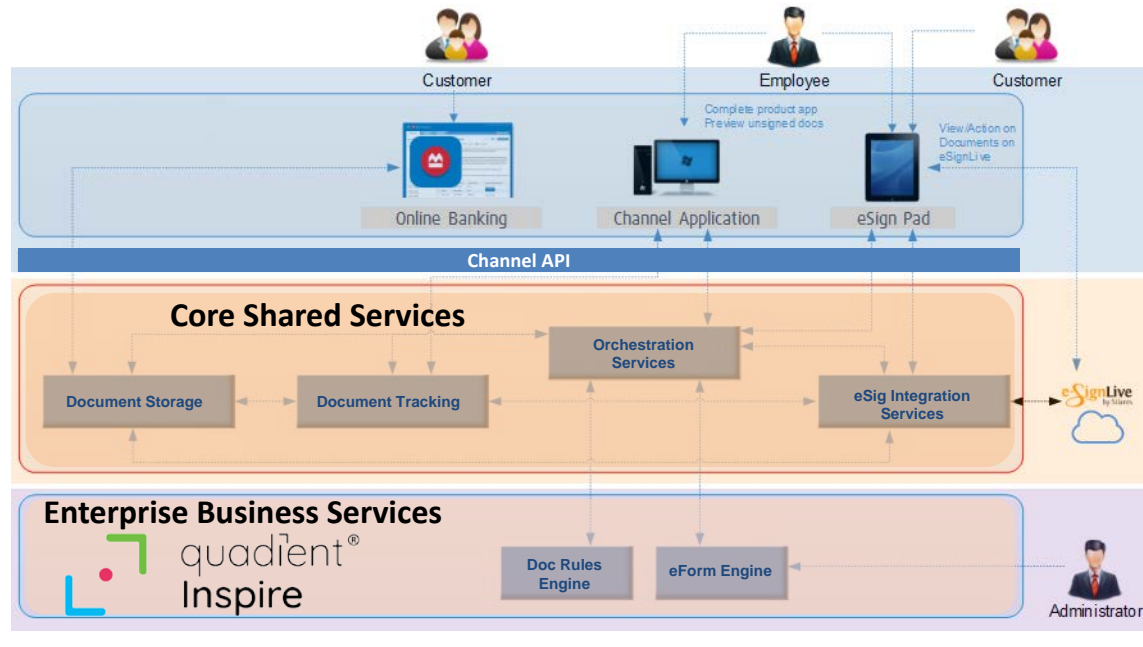
The platform has enabled BMO to reduce the number of forms it uses across the account opening process from 44 to 26 and the number of steps involved in the process from 25 to 13.

Smartfolio: How Can I Help You?

Smartfolio is BMO's Wealth group's answer to the robo advisor. The Smartfolio team realized that by modifying the Personal Banking eSignature and by migrating their current forms onto the platform, clients would experience a more responsive onboarding experience and a better portfolio management advice service.

Figure 2 shows the modular design of the platform and highlights its accessibility and extensibility. The solution has quickly streamlined the full onboarding processes across retail services.

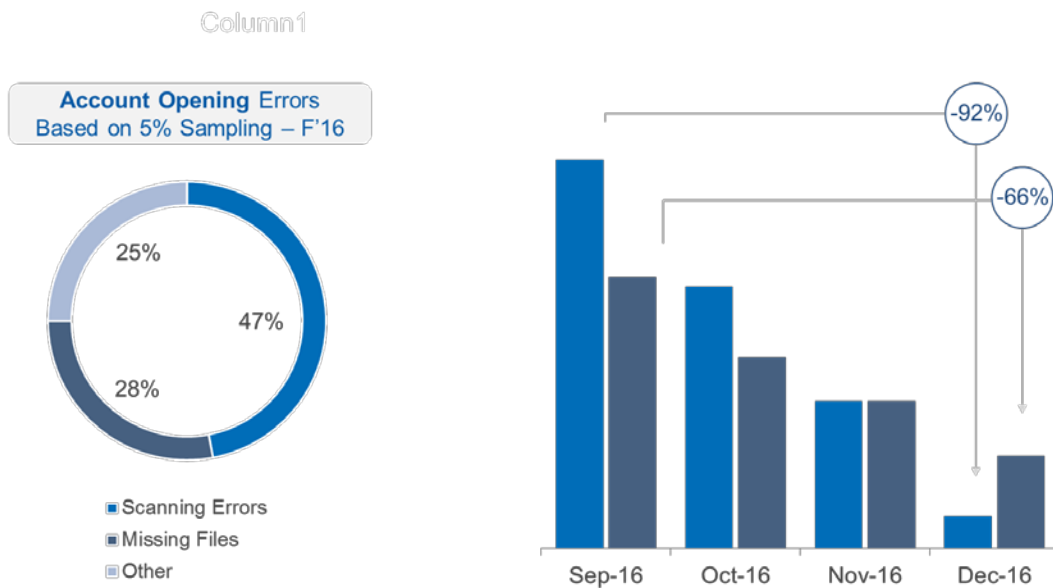
Figure 2: Modular Architecture, Enabling Reusable Technical Capabilities Across the Enterprise



Source: BMO, Bank of Montreal

Figure 3 demonstrates the improvement in the auditing process for BMO's Personal Banking account opening process. Based on 5% sampling of all account opening transactions in 2016, the top categories for errors were scanning, with an error rate of 47%, and missing files, with an error rate of 38%. Since the national rollout of the eForms and eSignature platform across BMO's Canadian retail branches, the error rate for these categories has dropped significantly. Scanning errors decreased by 92% and missing files fell by 66%.

Figure 3: Account Opening Errors Dropped Substantially



Source: BMO, Bank of Montreal

Implementation Success

To ensure the project's success, BMO established a group they call *Digital VIPs*, which is made up of frontline staff that can facilitate adoption and assist in using the technology. Agile project teams were established, with representation across the bank, including staff from business, process, product, legal, compliance, and technology groups. The teams used a "fit-for-purpose" Agile approach, which combined the best practices of the Agile and Waterfall methodologies. This enabled a high degree of collaboration through colocation, retrospective, daily standups, and iterative work based on changing requirements, while keeping the structure and predictability of the traditional Waterfall approach.

Partnering with Quadient enabled BMO to create dynamic form templates, rationalize content, simplify scanning capabilities, and, where appropriate, reuse content across other documents. The bank was able to reduce the number of everyday banking documents included in the scope from 44 to 26. Work is currently underway for new lending, investments, and commercial eForms.

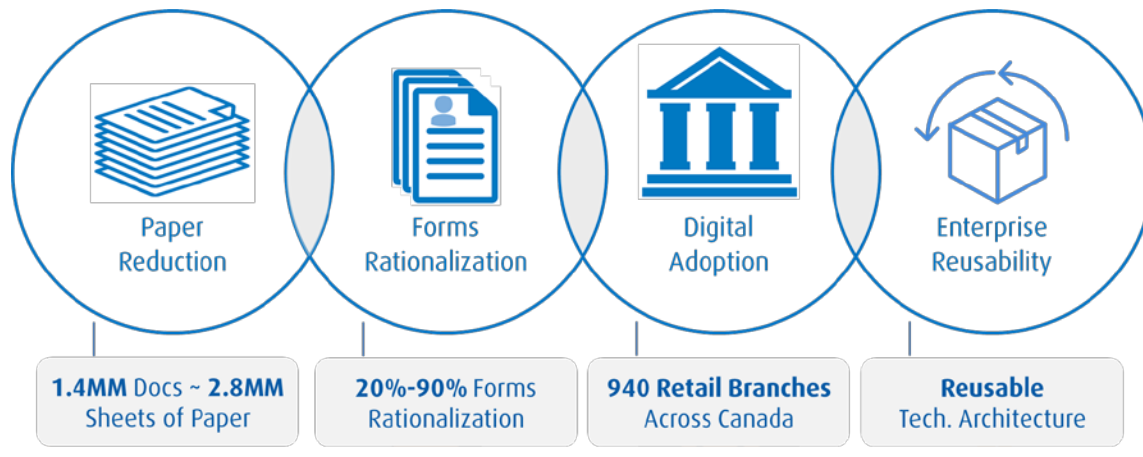
The project kicked off in December 2015, and the national rollout began in October 2016. By December 2016, BMO's digital customer onboarding journey was in full production across its 940 retail branches in Canada.

BMO is in the process of expanding the deployment of its eForms and eSignature capabilities across other core businesses, including commercial banking, wealth management, and capital markets, as well as internal functions.

Results

BMO has more than delivered on its objectives. With the deployment of its platform across its 940 Canadian retail branches, the initiative is saving its 2,000 strong salesforce between 15 and 30 minutes a day on processing forms. Since its launch in October 2016, BMO's eForms engine has generated approximately 1.4 million digital documents, equating to 2.2 million sheets of paper. In addition, efficiency ratios on the frontline have increased by 40% overall, with an impressive 80% efficiency ratio across the audit process.

Figure 4: The Project Has Delivered Impressive Metrics Across Lines of Business



Source: BMO, Bank of Montreal

Celent believes one of the most substantive benefits of this initiative is the automation and streamlining of its audit processes. This is critical if banks are to overcome the daily challenges of governance, increased information requests, and compliance requirements. It also goes a way to solving the struggle to resource audit and compliance functions and will reduce the heavy manual burden on audit and compliance professionals.

Lessons Learned

One of the biggest challenges BMO faced was getting employees to adapt to the concepts of the Agile methodology and agile working habits. For a 200-year-old bank, with legacy systems built over the years and with a penchant for paper, it was important to communicate **“the what, the why, and the how”** of the Agile approach: The why being the benefits of an end-to-end digital onboarding process.

In a project that spans the organization it is an absolute that leadership embrace and foster the initiative. The team realized that leadership needed to actively encourage each stage of development and deployment. Furthermore, it was clear that any discussions about the solution should include all stakeholders so as to ensure a mutual understanding of business objectives. This was also useful in agreeing on a realistic timeline and prioritization of development.

The complexity and size of the initiative meant that roles and responsibilities needed to be clearly defined at the onset. Business SMEs were given the authority to make quick decisions in order to maintain momentum and accelerate progress.

BMO also recognized that in order to create a sense of community, urgency, and action across the organization, it had to demonstrate immediate and tangible benefits of the solution. To accomplish this, the team put in place an education program that shows the benefits of digital transformation and the value of reusable components and tools that can quickly generate reoccurring savings.

Summary

BMO's digital reengineering of its onboarding process has greatly improved its user experiences and operational and process efficiencies. The introduction of a paperless digital eSignature and eForms platform has simplified and modernized the customer and employee user experience. It is important to the banking industry that BMO can onboard a customer for a new banking account in less than eight minutes. Furthermore, BMO is well positioned to migrate its other core business processes to the platform and to continue its automation of its eForms and eSignature digital capabilities.

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