Cognizant

The Path Ahead for Mortgage Digitization

Digitization is set to transform the mortgage industry by addressing issues ranging from customer experience, asset quality and risk, and regulatory compliance, to efficiency and cost containment. Lenders must forge a path to digitization or risk becoming irrelevant.

Executive Summary

Having survived record government settlements, and the implementation of the Ability to Repay (ATR) and Qualified Mortgage (QM) rules (2014) and TILA/RESPA Integrated Disclosure (TRID) (2015), mortgage bankers and financial institutions are now better positioned to focus their efforts beyond compliance. This is all for the good as they now need to gird up for the digitization of the mortgage lending process. This digitization looks set to transform the business as much as the recent regulatory reforms did. It can potentially address all of the major challenges that mortgage executives face, such as regulatory compliance, customer experience, asset quality and risk, efficiency and cost containment. Organizations that do not formulate a comprehensive digital strategy risk losing business to competitors.

This white paper aims to provide a technology-focused, detailed path for mortgage digitization. The paper addresses current challenges, as well as the enabling technology needed to seize the emerging opportunities.

HOW DIGITIZATION CAN BENEFIT MORTGAGE LENDERS

Below is a summary of the primary concerns faced by mortgage lenders and how a fully digitized mortgage process can provide significant value across the spectrum of lender goals, risks and needs. Each organization will require a tailored approach based upon the enterprise's level of digital maturity. A thorough digital assessment will focus on all dimensions of value across regulatory compliance, customer experience, asset quality and efficiency. Note that these issues are not restricted to a specific market segment or seasonal product demand (e.g., purchase, refinance, HELOC, etc.).

- **Regulatory compliance:** Several government bodies (CFPB, OCC, FRB, NCUA, HMDA, etc.) have initiated an unprecedented level of regulatory requirements for lending and servicing. The requirements are geared toward greater customer and investor protection. Compliance extends to third-party providers and requires lenders to develop compliance management systems (not necessarily technical systems) to monitor and control regulatory compliance.
    - » **The case for digitization:** Digitization allows lenders to further automate compliance processes and remove manual interference. For instance, enhanced digitization of the TRID review process will more effectively automate the review, leading to lower error rates with fewer resources.
- **Customer experience:** Competing on only products and services is no longer enough. A survey conducted by the White House Office of Consumer Affairs found that 80% of U.S. consumers will pay more for a better experience.[1] How a company delivers on its experience is becoming more important than what it delivers. According to the Walker study, *Customers 2020*, customer experience will overtake product and pricing as a key brand differentiator.[2] A focus on customer experience improves customer satisfaction, customer retention, brand value and, ultimately, sales.

  Within mortgage lending, significant improvements are possible in moving customers to digital channels and enabling more self-service options (mobile, web, etc.). The mortgage market primarily leverages a phone-centric engagement model which forces customers to speak to lending associates to initiate almost all the required or meaningful lending activities. While this engagement channel may be ideal for some consumers, a growing population of consumers is looking for more self-service options that do not require telephone interactions. The Global Contact Centre's 2016 benchmarking report highlights this point: "For customers aged 55 and older, the telephone is the predominant channel of choice for upwards of 87.0%. However, that number falls quite dramatically to just 51.7% for customers aged 35–54 years. It will soon become a minority, as this group too follows the younger age groupings in preferring the immediacy and convenience of digital channels to traditional phone services."[3]
    - » **The case for digitization:** Digitization allows for an individualized customer-focused experience, with improved engagement that is often expected but rarely delivered when shopping for personal financial services products such as mortgages. In addition, younger generations often prefer digital technology as a

self-service tool to meet their needs. The self-service experience will need to quickly move away from a laundry list approach for the customer to fulfill documentation needs and move to a more collaborative and engaging model where information will be exchanged and shared rather than simply supplied by the consumer. The direct sourcing of supporting documentation will become the new normal for first attempts at securing essential information. Additionally, the actors within the process should become active participants in segments of the transaction rather than all information being requested and sourced solely through the borrower alone. Participation of real estate agents, insurance agents, appraisers and other players will become more collaborative and instantaneous. Moving from phone and e-mail collaboration to other means enables more controlled and clear communication and cooperation. The primary focus should be to minimize the impact on the customer without sacrificing loan quality and compliance.

We are seeing great steps in this direction with the recent announcements from the GSEs, which aim to provide a faster time to close, increased collaboration with the lenders, better underwriting confidence and reduced risk. In October 2016, Fannie Mae launched the Day 1 Certainty initiative providing freedom from representations and warranties through their mortgage and collateral underwriting platforms: "Together, these innovations deliver greater speed, simplicity, and certainty to lenders and borrowers. They also bring stronger risk management and promote greater digitization of data and processes to the mortgage industry."[4] The home buyers and the housing finance system will benefit from these digital advances made possible by the GSEs and their lenders.

- **Asset quality and risk:** In the shadows of the mortgage crisis that caused tens of billions of dollars in losses for investors, very little has been done to improve asset quality. Traditional processes, controls and LOS platforms that were in effect prior to the crisis are still in place with limited improvements. A deeper level of accuracy, trust, integration and transparency is required in the lending market to minimize the risk of reoccurrence of massive loan buybacks due to loan quality defects.

  » **The case for digitization:** A fully digitized mortgage process allows for expanded automation of underwriting, processing, closing and quality assurance capabilities. For instance, within processing, technology may be deployed to not just upload and store a digital copy of a borrower's W2 in the lender's file system, but actually "pull" wage data into the loan origination system (LOS) from the document or direct sources. The data is used to simultaneously auto-calculate income ratios. The same can be applied to almost all verification points within the process (hazard insurance, asset verification, collateral value verification, credit review, purchase contract review, etc.). Benefits realized include improvements in processing timeframes and better use of processing and underwriting resources. With fewer defects, asset quality will improve. In fact, these advances are already occurring with the GSEs, specifically with Fannie Mae's Day 1 Certainty program: "As part of Day 1 Certainty, Fannie Mae is offering income, assets, and employment validation services to lenders through its leading mortgage underwriting system, Desktop Underwriter® (DU®). In addition, Fannie Mae will provide freedom from representations and warranties on appraised values through Collateral Underwriter® and enhanced waivers of property inspection requirements on refinances."[5]

- **Efficiency and cost:** Due to increased regulatory and investor requirements that have been introduced over the years, the net cost to originate a residential mortgage has risen to $7,120.[6] Today's net costs are approximately four times what they were 10 years ago.[7] This substantial rise in costs is due to the reliance on people to perform most of the functions within the process. Furthermore, due to the higher error rate of manual processes, lenders are forced to insert double and triple reviews within the process. This process is both costly and time-consuming, and creates uncertainty for the customer.
    - **The case for digitization:** Back-office improvements can only come from changing the way the process is managed. It requires moving away from people-based processes to digital processes and expanding the data model to not simply facilitate key aggregate values, but to collect and process the metadata that drives the process decisions. Once the processes are elevated to this level, true automation and exception management can be realized that not only reduces processing times and costs, but also creates a much more engaging and predictive customer experience.

The improvements realized through digitization and the benefits in compliance, customer experience, asset quality and efficiencies lead to a more streamlined and less expensive mortgage process. In the prior example of how digitization of the W2 file upload process enhances processing through increased automation, the improvements noted will likely contribute to a decrease in turnaround times and an increased speed to close. In addition, cost savings may be further enhanced through a rebalancing of processing staff. Also, further savings may result from decreased costs for document production, mailing and warehouse lending (which often requires documents to be shipped).

WHAT CUSTOMERS WANT

The challenge set before mortgage lenders and servicers is to bridge the gap between current systems and platforms and the "ease of use" customer-centric systems and features that are already the norm in other industries. A consumer can now download a movie to their phone, unlock their house with their phone, and order food and clothing online without ever dealing with a cashier or customer sales/service representative.

It is not just about the ability to order goods and services without the influence or assistance of the company sales/service representative but also to accomplish the delivery within a streamlined integrated process and platform. Disjointed processes that result in an ineffective delivery of a mortgage product will no longer do as customer expectations continue to increase.

So how does a bank make this transition? In order to bring the industry into the digital future state, an understanding of the current state is a requisite. The gaps will quickly be identified and an approach to digitize the process for mortgage lenders and servicers can be developed.

Current Capabilities of Leading Lenders

The borrower engagement approach of today's leading lenders is disparate and not truly "digital." Most lenders continue to provide fragmented collaboration solutions that are heavily call-center-based. Customers are able to initiate the loan application process via the bank's online

PoS platform or interface but in most cases the document collection and additional borrower information is obtained via other channels: call contact, e-mail, portal connections, etc.

The mortgage banking industry will need to invest in digital offerings and technologies to improve the loan origination process and the customer experience.

WHAT IS MORTGAGE DIGITIZATION?

The best way to describe mortgage digitization is to understand its characteristics, as follows:

- **Processes/tech transformation:** Digitization helps transform non-customer-facing processes for efficiency and effectiveness. It also facilitates transformation of technology related to the customer experience.
- **Deep insights into customer needs:** Digitization allows banks to more effectively target their customers with relevant and thoughtful services at the appropriate moment.
- **Innovative products and services:** Inherent in digitization is innovation, which supports a redesign of products and services based on customer research, segmentation and analysis.
- **Personalized and stellar experience:** Digitization provides a consistent, convenient and synchronous customer experience through all channels of interaction and across all devices.
- **Business model disruption and innovation:** Digitization is a business disrupter that is prompting lenders to adopt new business models, digital products, pricing and packaging to meet customer needs.

Characteristics of Mortgage Digitization

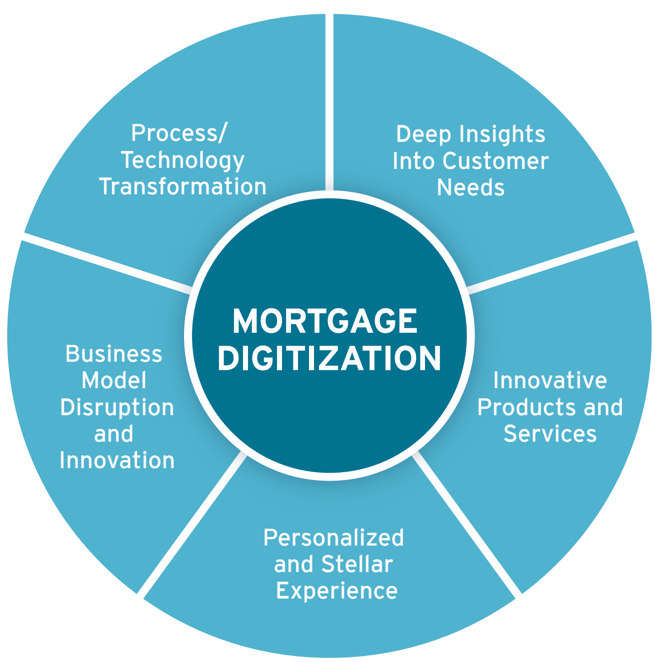


Figure 1

Banks that are successful in meeting these digital characteristics will emerge as industry leaders or at a minimum remain relevant in the mortgage industry. Organizations that are unwilling to embrace these changes risk eventual failure in the mortgage market.

Digital Mortgage Maturity Curve

An organization that fully embraces digital processes will demonstrate maturity in its program capabilities and execution. Successful organizations will deploy a customer-centric model that allows for flexibility when customer behaviors and expectations change (e.g., how and when to be engaged, enhancements in personal technology (e.g., mobile phones, tablets), multichannel preferences, etc.).

Leaders in the area are characterized by qualities such as team structuring, customer journey maps, project management experience, and capabilities such as organization agility, process innovation, and sophisticated design and technology architecture. Below is a list of traits, segmented by program capabilities and execution, displayed by successful organizations with mature digital mortgage strategies.

Capabilities

- **Organizational agility:** Organizations with a nimble operating model and agile methodologies will be better equipped with the flexibility to adapt their digital strategies as programs, customer behaviors and technologies change.
- **Process digitization/innovation:** The progression toward a fully digitized mortgage process requires a fresh perspective obtained via process reengineering in order to simplify and redefine convenience.
- **Technology and architecture:** A flexible, agile, contemporary architecture/framework is required for complete digitization.
- **Data and analytics:** Data and analytical capabilities that predict and meet needs are essential for adjusting digitization strategies in real time.
- **Experience design:** Designing a stellar customer experience across all channels is a key element of success. A focus on the customer experience will allow for differentiation from competitors.

Execution

- **Team structure and skills:** At the peak of the digital mortgage maturity curve, the organization will maintain team structures with a complementary mix of skills and defined roles to execute on projects.
- **Customer segmentation:** Digitization equips lenders with the tools to gain a deeper understanding of the customer and their needs and wants.
- **Customer journey maps:** Customer needs are supported through a deeper understanding of their preferred interactions via the development of journey maps.
- **Multichannel approach:** Multiple modes of communication (e.g., text message, e-mail, etc.) allow customers the flexibility to use features how/when/where they want.
- **Customer offer and service orchestration:** Personalization is further advanced by providing borrowers the capabilities for mass customization.
- **Project execution:** Program management and governance that thrive on digitization will be able to deliver long-term sustainability and demonstrate an understanding of digitization.

Although the capabilities and execution traits listed above are the foundations for success, the industry is still evolving and the customer segmentation journey is not yet mature.

The Path to Customer Delight

Figure 2

As depicted in Figure 2, the four-part path to customer delight leads the borrower toward a fully personalized customer experience. The first stage is **competitive lag**, in which the organization maintains the most basic digital processes with no or very limited resources (e.g., dedicated process engineering team) focused on the customer experience.

Competitive parity, the second stage, is reached once the organization incorporates the use of customer journey mapping with enhanced segmentation (e.g., by demographics, income, location, transactional behavior, etc.) to its workflow across the delivery and servicing of the mortgage product.

The next stage, **competitive advantage,** is characterized by an increased focus on customer experience, with advanced segmentation, and more personalized customer journey maps, with a significant emphasis on connecting with customers and improving the customer experience at all stages of the product lifecycle — origination, closing, servicing, asset disposition, etc.

At the peak of the maturity curve is **competitive leadership**. Organizations at this level are characterized by dedicated teams with complementary skills across design, delivery and excellence. The most advanced customer segmentation with profiles that include both financial and nonfinancial customer data not typically captured in today's standard systems is maintained, along with a centralized view of profiles, personas and segments, and content for customer journeys. At this level, the service offerings' composition considers customer preferences and habits and real-time integrated analytics for mass personalization. An expert experienced design team integrated in the technology delivery of the product and service is evident.

THE JOURNEY FROM TRADITIONAL TO DIGITAL

The journey from a traditional mortgage model to a digital model cannot have a short-term focus that capitalizes on quick wins. It goes well beyond the use of new tools and different media for engagement, but rather it is a holistic change in the mindset of the organization and the ultimate delivery of the products and services. Lenders that implement "digital" utilities and applications should question their longer-term objectives in doing so. When mobile applications are introduced, there should be improved brand awareness and credibility. However, the organization should consider implications beyond just the brand. Lenders should ask whether they are really transforming the way they engage with the customer, changing the way they do business or changing the value of their offerings. In many instances, digital tools are applied to particular experiences and are not a universal strategy of engagement and doing business in the future.

To better understand what we mean by having a digital mindset, let's look at the traditional technology model and how it contrasts in value with a more digital model.

Overview of Traditional Model

The technology framework that currently exists for many lenders today has been achieved through years of acquisition and integration of utilities, components and systems. It is typically driven by mandated changes: new industry offerings, new regulatory requirements and new investor requirements, which are quickly designed and implemented. The organization reactively responds to these changes rather than taking a proactive approach and implementing long-term sustainable solutions that differentiate the organization through thoughtful customer offerings. For example, with the implementation of TRID in 2015, a variety of offerings were introduced to the market to support disclosure changes, fee management needs, reconciliation and closing disclosure collaboration. These offerings delivered very specific solutions to address very specific needs. While the capabilities to support these needs are very important, the value has typically been limited to the disclosure compliance process rather than all points within the loan lifecycle where the fundamental capabilities could provide value. The traditional model has grown from necessity or from being reactive to market demands, rather than looking at future business needs, customer needs, offerings, competitive advantages and market differentiation.

The current technology framework for many mortgage lenders is a collection of utilities, applications, components and systems that have been strung together to solve specific needs throughout the process. Such a model often lacks extensibility into new ways of doing business, lacks capability reuse and limits the ability to respond to future needs. Additionally, many lenders' business models result in a disjointed customer experience based upon the mode of customer interaction. Consider the loan underwriting document collection process. The borrowers, lenders, and closing agents go through fragmented channels whether it is phone, e-mail or jumping to various "tools" to participate and collaborate. Rarely does the customer have a seamless experience. Most often, the customer is forced to engage with the lender through call centers or e-mail to collaborate and participate in the process.

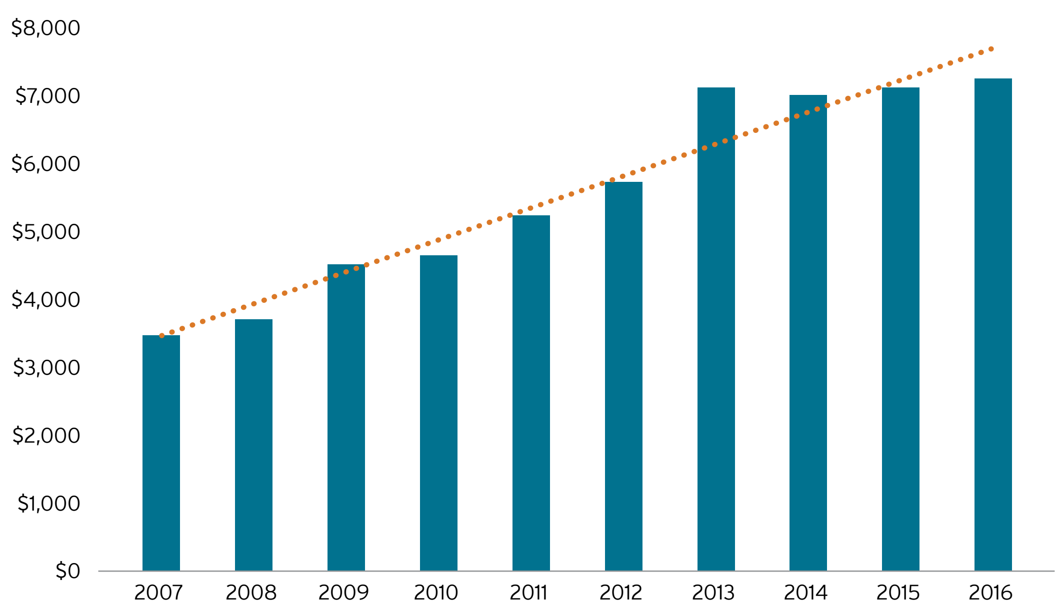
The current technology capabilities that are being deployed provide minimal impact to lenders as the costs to originate a mortgage have doubled in the past eight years (see Figure 3). This fact alone should cause us to pause and question the path ahead.

Why Isn't Technology Keeping Pace with the Value Demand?

Technology has not kept pace with the value demand in the mortgage industry, which continues to squeeze profits and cause operational heartburn. We have observed the following root causes in the industry that are contributing to this disconnect between technology and value:

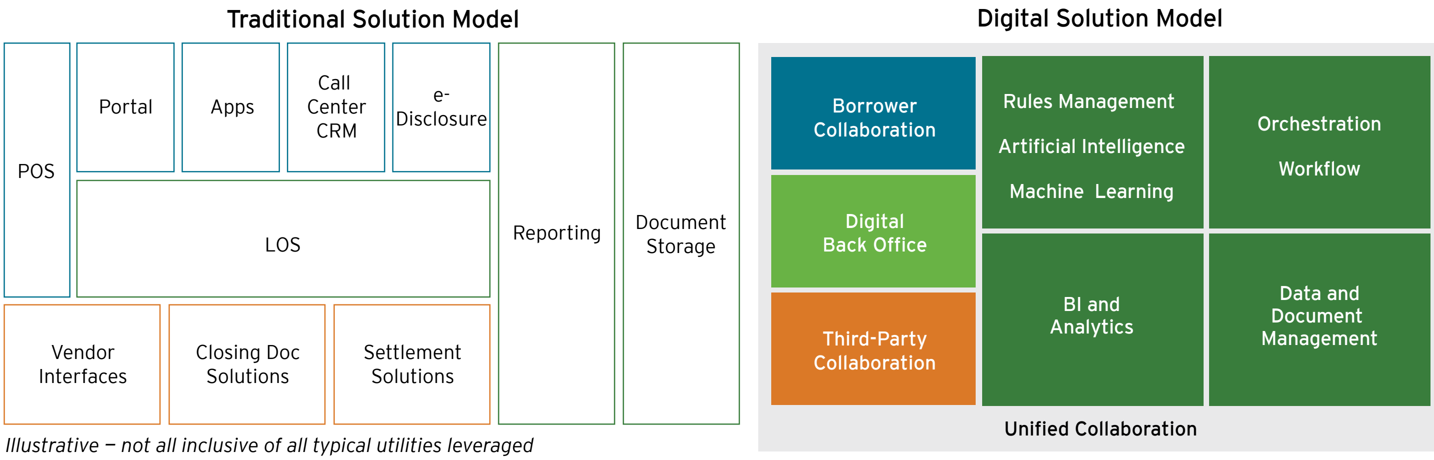
- **There is too much reliance upon single loan origination systems (LOS) to address all of the needs within the lifecycle.** LOS have been occupied with compliance changes for the past decade and have not focused sufficiently on innovation.
- **Traditional operating models have largely not been questioned.** Many lenders operate within a linear process and align their organizations around sales channels and geographies rather than capabilities. This limits innovation and promotes the reuse of core capabilities across the organization, which causes challenges in an ever-changing marketplace based on customer preferences, increased expectations, and additional regulatory requirements and scrutiny. In addition, many of today's LOS have been primarily designed around dated operating models.
- **Almost all lenders have essential technology components in place, but very few leverage them to the right level of value realization.** Mortgage lenders and vendors have enhanced some components but continue to lack the ability for full follow-through on maximizing these capabilities. For example, digital documents are typically limited to

Doubling of Mortgage Production Expenses over Eight Years



Source: MBA Performance Reports.[8]
Figure 3

Traditional vs. Digital Solution Model



Illustrative – not all inclusive of all typical utilities leveraged

Figure 4

the paperless value proposition. However, the industry is a document-centric/data-centric field. There is limited use of metadata or direct sourcing of data. This is an unrealized opportunity. Banks should leverage OCR capabilities one step further to satisfy, for example, underwriting conditions. They should take document indexing one step beyond just imaging and interpreting the intended use of the scanned document (e.g., a borrower's W2 to satisfy an income underwriting requirement).

- **Fragmented "point solutions" are leveraged throughout the process, which impacts customer experience.** Examples of fragmented solutions are often found in the following: PoS portals, processing portals, disclosure portals and e-signing portals.

- **Immediate focus for lenders tends to be on customer experience and self-service options.** Such a focus is great for improved customer experience and collaboration, but the back-office processes, capabilities and technologies must also be addressed in tandem to maximize the benefit of collaborative solutions. Asking for documents again and again through a slick self-service interface is not improving the experience; rather, it just puts a new face on a problem that has persisted for years.

OVERVIEW AND COMPARISON OF DIGITAL MODELS

A digital solution model enables a multi-interface engagement (web, app, call center, etc.). A fully digital model is unified to enable collaboration between all participants of the transaction, and includes the three primary value enablers – borrower collaboration, digital back office, and third-party collaboration (see Figure 4). When fully interconnected, these enablers can position a lender to deliver an integrated mortgage solution across the product lifecycle that enhances customer experience, increases efficiencies and drives down costs.

A traditional model, by contrast, often includes disjointed, fragmented systems that are woven together to solve end-to-end needs. Unlike the digital model, the traditional model is more prone to manual work-arounds and rekeying of redundant data, which adds risk to the process.

Following are brief descriptions of the three primary value enablers within the digital solution model:

Borrower collaboration: The borrower collaboration layer supports an end-to-end unified customer experience via a singular solution set (see Figure 5). This layer aggregates utilities across all borrower engagement points to support collaboration with all parties, and leverages existing point solutions as core components, such as disclosure, pricing, AUS, etc. A common user interface design enables rapid changes and consistent experience regardless of engagement mode (web, mobile, tablet, etc.).

Functionality integrated within the borrower collaboration layer often includes the following activities:

- Eligibility.
- Pricing.
- Application.
- Credit.
- Disclosure.
- Direct-source income and assets.
- Uploading documents.
- Scheduling appraisal.
- Reviewing settlement statement.
- Status and messaging.
- Information collaboration.
- E-signing.

Borrower Collaboration

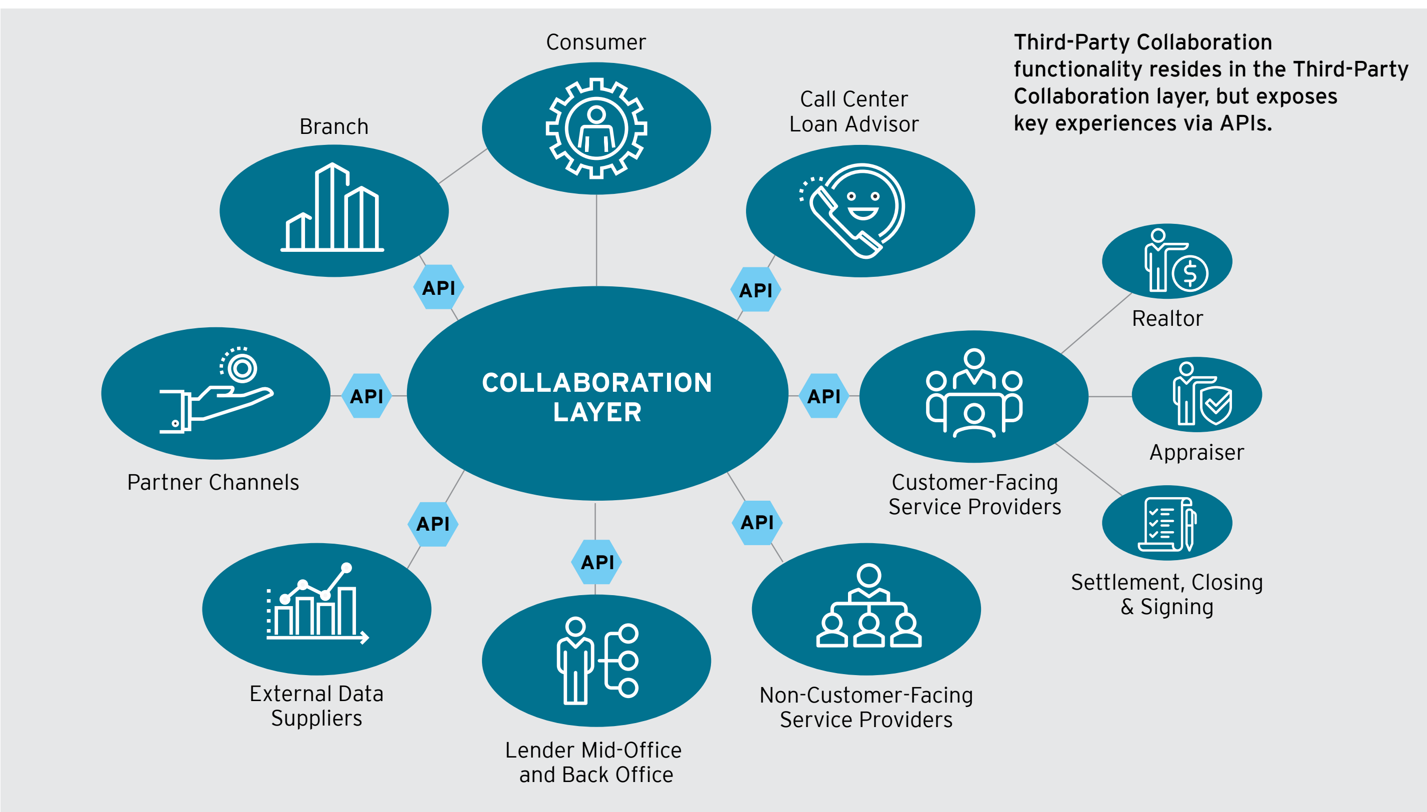


Figure 5

Third-party collaboration: The third-party collaboration layer is focused on fully integrating third parties within the process, and expands third-party capabilities from product ordering and fulfillment to collaborative interactions throughout the third-party process (see Figure 6). Borrower-facing capabilities are managed within the third-party collaboration layer but experiences are exposed through APIs. The layer provides a singular solution set rather than a collection of point solutions, is API-focused and leverages existing point solutions (such as closing docs, e-signing, e-recording, basic order management, etc.) as core components. The third-party collaboration layer also provides deep value in expediting the communication and collaboration of process activities as well as enforcing origination policies and rules at the vendor's point of fulfillment.

Functionalities integrated within the third-party collaboration layer often include the following:

- Self-service scheduling at PoS.
- Vendor calendar and profile management.
- Delegation of document needs to participants (insurance agents, realtors, etc.).
- Pricing.

Digital back office: The digital back office provides the lender with expanded metadata management and decision management tools by:

- **Extending the document lifecycle upstream – where specific document needs have been determined, but have not yet been fulfilled.** Most document lifecycles (from a data entity standpoint) begin with the receipt of a requested document rather than at the point the specific document need was iden-

Third-Party Collaboration

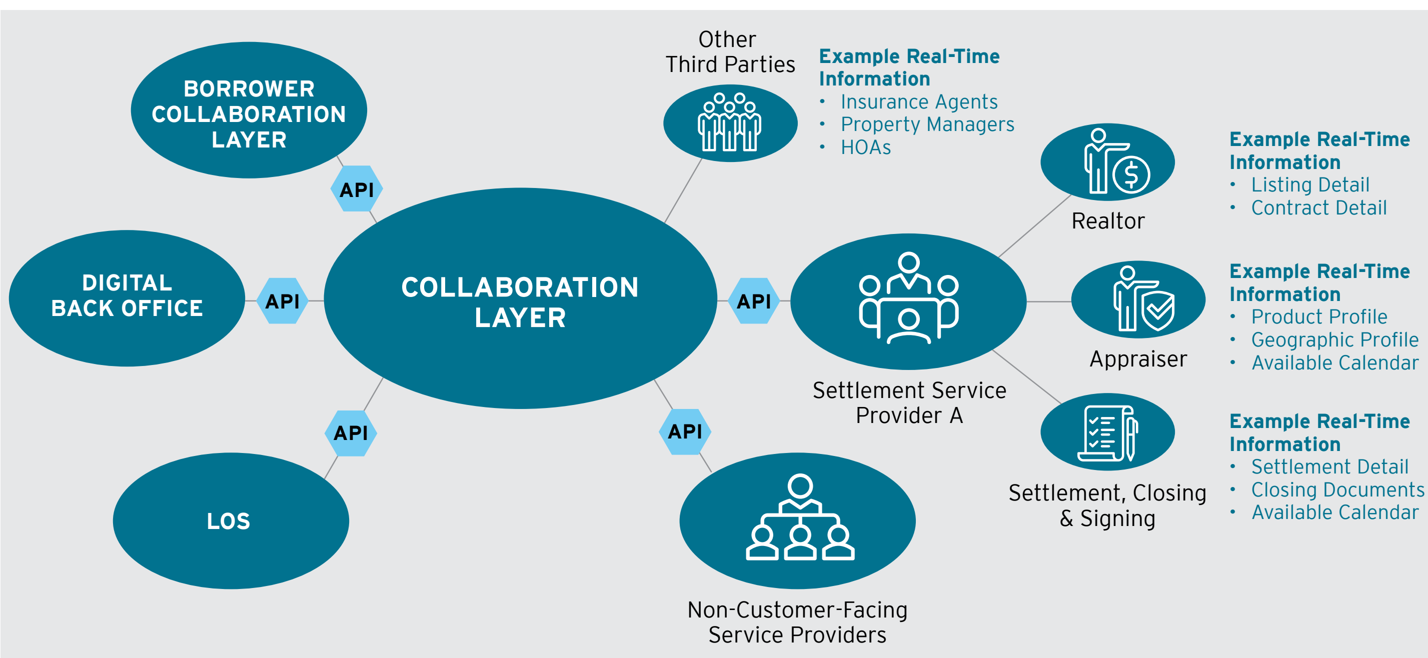


Figure 6

tified. Most lenders have an electronic folder without clear visibility to the specific valid documents received and document needs that are still outstanding.

- **Extending the document classification to a deeper level to enable process automation and process accuracy, and to minimize process risk.** Metadata for the document is expanded from only "Doc Type" to include version and other data. For example, move the document request from a simple "W2" classification to include a relationship to the borrower, employer and year.

- **Developing a comprehensive framework that allows for relationships to exist between specific document versions, loan conditions and activity plans.** This is the area where most lenders fall short. Successful capture of the functionality enables automation and ensures compliance through exception management and effective process control.

- **Going deeper than simply developing a "virtual loan file."** Digital enables leveraging the data relationships established to allow the virtual loan file to contain a full understanding of the documents included, in addition to the data extracted from the documents that drove the underwriting and processing decisions. Whereas a traditional model allows for the aggregation of imaged files, the digital office enables relationships to link the data within the files to complete calculations, such as debt to income, loan to value, etc.

Figure 7 provides a simplified view of traditional back-office core activities, resources, supported systems and the process limitations. As depicted in the diagram, the inefficient process is heavily reliant on human intervention to interpret documents, calculate loan values and then once again recalculate loan values.

Implementation of digital back-office capabilities will provide increased efficiency in underwriting due to clearly linked supporting documents,

A Simplified View of the Traditional Back Office Lending Process

Core Activities	**Receive Documents & External Data**	**Review if Complete & Appropriate**	**Review to Derive Values & Adequacy to Clear**	**Holistic Review & Underwriting Decision**
Resources Leveraged	OCR & Human Based	100% Human Based	100% Human Based	100% Human Based
Systems Supported	Documents Stored & Indexed	Document Checklist	Derived Values Stored & Condition Status	Decision & Condition Status Updated
Why Does Not Work Well?	Value limited to paperless value – deeper data capture is needed.	Requires human interpretation of completeness and appropriateness.	Requires humans to derive values – lacks consistency and prone to accuracy issues.	Highly inefficient – requires that all prior conclusions be reevaluated.

Figure 7

An Alternative View of the Back Office Lending Process

Core Activities	**Document & Data Ingestion**	**Store in Expanded Data Model**	**Apply Rules Management**	**Manage Exceptions**	**Perform Accelerated UW Review**
Resources Leveraged	OCR & Human-Based	100% Automated	100% Automated	20%-40% Human-Based	100% Human-Based
Systems Supported	Expanded Data Capture from Documents & Direct Source Data from External Sources		Expanded Use of Rules Management to Automate Derived Values, and Make Decisions – Delivering Exceptions to Associates		Fully Transparent View into Decisions, Supporting Data
What Value Does It Add?	Capturing the deeper data from documents and external sources enables automation and deeper transparency into decisions.		Systems make decisions while presenting exceptions to associates to address – reduces process wait time that manual processes naturally create.		Highly expedited underwriting that is clear, accurate and consistent.

Figure 8

improved accuracy in loan calculations, and overall consistency enabled through automated processes and business rules. Figure 8 provides the process areas where automation can altogether replace or reduce manual intervention and interpretation.

At the core of the digital back office is the ability to capture data and support enhanced automation of processes. Figure 9 (next page) provides an overview of how the digital back office ingests data and documents to ensure that underwriting requirements are addressed.

Figure 10 (next page) provides a real-world application of this program, illustrating how these digital technologies can be automated to ensure a loan meets hazard insurance requirements. Note how the digital back office can be used to aggregate values sourced from data and documents to determine whether the coverage is sufficient.

THE JOURNEY

The journey should begin with a long-term view in mind and the business value that can be achieved with digital capabilities and offerings. Looking beyond existing utilities, systems and applications that are on the market, organizations should align the core capabilities needed to achieve long-term business goals. This should be decomposed at a fairly detailed level to ensure the technology capabilities identified align with current as well as future business needs.

Technology selection should consider the long-term journey and approach to optimize borrower engagement. When considering a solution, the strategy should:

- Inventory current capabilities.
- Identify capabilities needed/desired.
- Define technology requirements.
- Assess the current state.
- Define the future state.
- Implement technology.
- Provide ongoing review of capabilities.

How the Digital Back Office Ingests Data and Documents

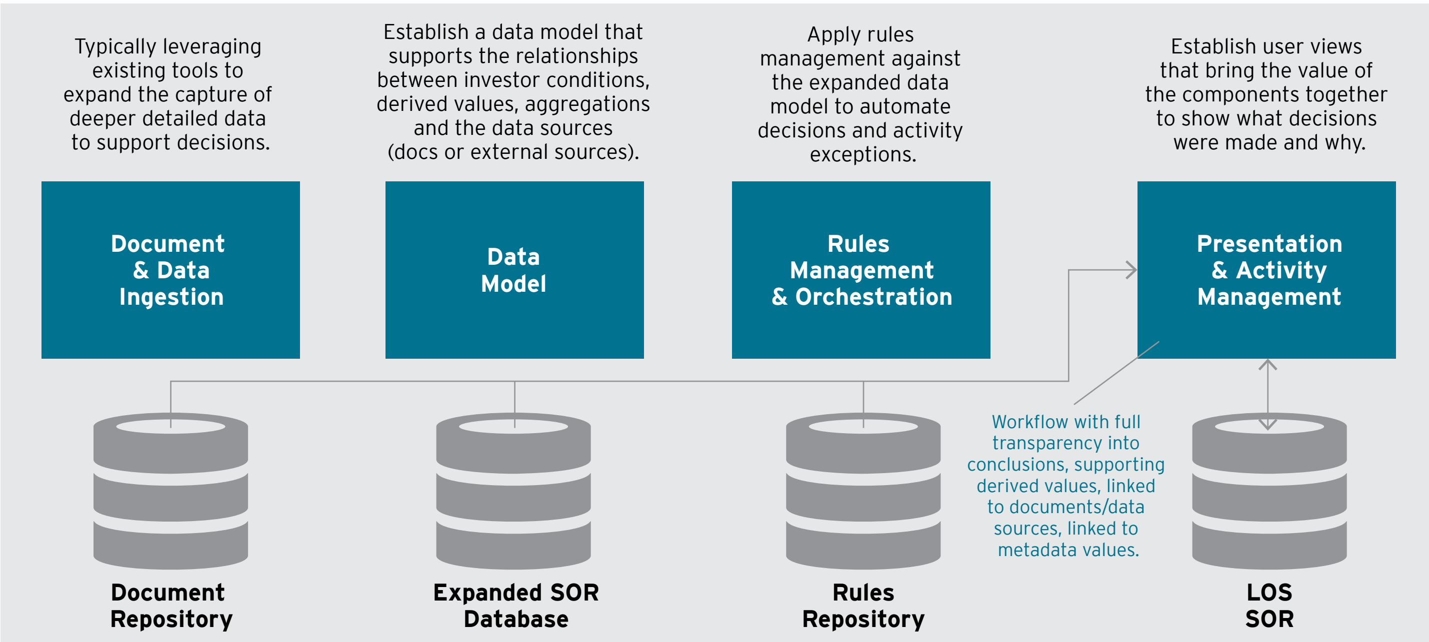


Figure 9

Digital Back Office Example: Simple Hazard Insurance Assessment

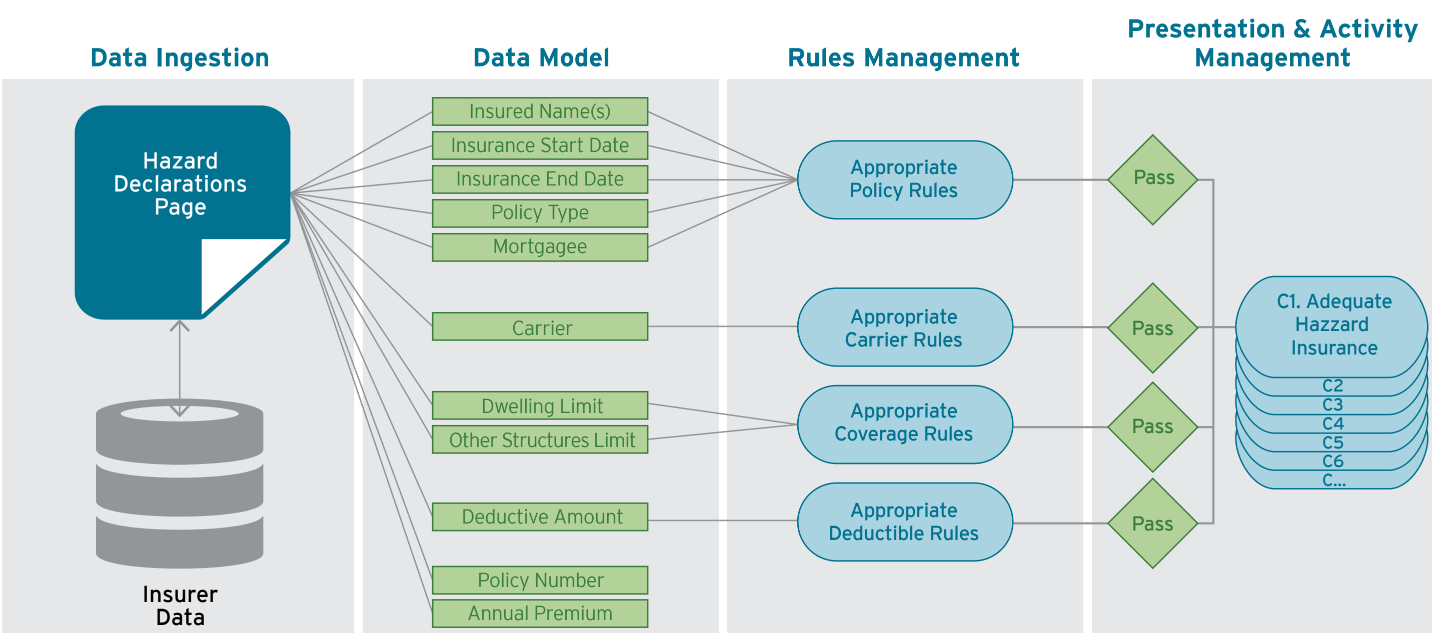


Figure 10

Challenges

When designing a plan to digitize the mortgage process, organizations should carefully consider the following challenges:

- **Technology cost spend:** Budgeting should include plans for changes to the technology, team structure, program monitoring and process reengineering. Clearly articulating the digital business strategy and how technology can enable this strategy is imperative to understanding the costs/benefits before undertaking a successful implementation.
- **Changes resulting from process improvement (e.g., potential disruption to culture):** Process improvement associated with plans to digitize the business should consider potential disruptions to the culture of the organization. Current staffing may not align to the competencies required in a fully digitized future state.
- **Digital alignment to vendor systems which might not yet support capabilities:** Constraints related to third-party resources, such as title companies and appraisal management firms, which may not support fully digital capabilities, need to be considered.
- **Case for heightened data security:** Data security will become even more important post-digitization. Organizations should therefore review their data security protocols and ensure that they align to their digital strategies.

A Note on E-Closings

A truly digital mortgage experience, from origination to closing, will support e-notes, which have yet to be widely adopted. An e-closing is the electronic closing of a mortgage. This occurs through a secure electronic environment in which closing documents are accessed via the internet. Most e-closings today are hybrid and support paper (wet signatures) for key documentation (such as the mortgage, note and deed of trust) and electronic signatures for other documentation. An e-closing creates an e-note/e-mortgage only if the promissory note or mortgage is electronically signed.

Constraints in the overall acceptability of e-notes and e-mortgages have limited the ability to conduct a paperless closing. A truly paperless mortgage requires the security instrument to typically be e-notarized and e-recorded. Although nearly two-thirds of U.S. households reside within an e-recording jurisdiction, e-notarization capabilities vary significantly by state. However, technological advances are leading the way for lenders to accept e-mortgages and e-notes, which should soon become the standard.

LOOKING AHEAD

The digital transformation under way in the mortgage industry is not a fad. Digital solutions address numerous industry challenges. The process and technology transformation will personalize customer experience, spur innovation within products and service offerings, increase compliance and lower origination costs. Lending institutions and mortgage servicers must adopt digital solutions to remain relevant. Moving from a traditional mortgage model to a digital-solutions-based mortgage model will require dedicated organizational alignment. Digital is not just a box to be checked or leveraged only for pointed solutions to specific problems.

FOOTNOTES

1 http://blog.clientheartbeat.com/why-customer-experience-is-important/

2 www.walkerinfo.com/Customers2020/

3 www.dimensiondata.com/Global/Downloadable%20Documents/2016%20Global%20Contact%20Centre%20Benchmarking%20Report%20Summary.pdf

4 Bakel, Pete, "Fannie Mae Announces Day 1 Certainty Initiative", 10/24/2016, www.fanniemae.com/portal/media/corporate-news/2016/6467.html.

5 ibid

6 Q2 2016 Mortgage Bankers Association (MBA) Performance Report.

7 www.mba.org/news-research-and-resources/research-and-economics/single-family-research/mortgage-bankers-performance-reports-quarterly-and-annual

8 ibid

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John Geertsema is a Director of Consulting within Cognizant Business Consulting, and has 15 years of experience in the mortgage industry. He has worked with top U.S. lenders to implement mortgage origination and default servicing solutions. John has a B.B.A. in finance from Texas A&M University and an M.B.A. from the University of Texas at San Antonio. He can be reached at John.Geertsema@cognizant.com.

Justin Wellen

Senior Manager — Consulting, Banking & Financial Services

Justin Wellen is a Senior Manager — Consulting within Cognizant's Banking and Financial Services Practice. He is a former owner of a residential multistate-licensed direct lender, with a specialty in delivering high-touch solutions that meet the complex business needs of mortgage banking entities within the areas of operations, risk, compliance, digital mortgage strategy, technology, credit, loss mitigation, servicing and product development. With nearly two decades of mortgage industry experience, Justin has led or managed operational risk and control assessments, regulatory reviews, mortgage audits, process improvement optimization initiatives, origination and servicing strategy assessments, system implementations, foreclosure lookback reviews, user acceptance testing (UAT) and benchmarking efforts for major lenders, regional banks and investment banks. He can be reached at Justin.Wellen@cognizant.com.

ABOUT COGNIZANT BANKING AND FINANCIAL SERVICES

Cognizant's Banking and Financial Services business unit which includes consumer lending, commercial finance, leasing insurance, cards, payments, banking, investment banking, wealth management and transaction processing, is the company's largest industry segment, serving leading financial institutions in North America, Europe, and Asia-Pacific. These include six out of the top 10 North American financial institutions and nine out of the top 10 European banks. The practice leverages its deep domain and consulting expertise to provide solutions across the entire financial services spectrum, and enables our clients to manage business transformation challenges, drive revenue and cost optimization, create new capabilities, mitigate risks, comply with regulations, capitalize on new business opportunities, and drive efficiency, effectiveness, innovation and virtualization. For more, please visit www.cognizant.com/banking-financial-services.

ABOUT COGNIZANT

Cognizant (NASDAQ-100: CTSH) is one of the world's leading professionalservices companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 205 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us @Cognizant.

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