Digital Transformation and the Need for a Knowledge Fabric in Financial Services

EXECUTIVE SUMMARY

IDC research shows that those organizations that are leading in digital transformation (DX) put a focus on using information to establish better customer experiences, improve knowledge worker productivity, and create operational adaptability. This focus manifests itself in the investment in a digital platform.

A key element of the digital platform is the ability to organize data in what IDC calls the "intelligent core." This capability goes beyond traditional data management considerations like syntax (the rules) to include a semantic understanding that captures the knowledge graph of the organization. When the various knowledge graphs of key foundational areas like people, place, entity, and thing are connected, a knowledge fabric is created; this fabric opens a wide range of options for the implementation of digital use cases.

In financial services, location-based intelligence derived from place enables financial institutions (FIs) to enhance know-your-customer (KYC) and financial crime compliance. Place data provides compliance and risk management teams with the ability to perform more accurate and complete entity-level risk assessments. Digital maturity across financial institutions' risk and compliance functions depends on investment in a platform that provides a holistic view of entities and related connections. The entity-level view is substantially enhanced by the referential integrity delivered by the knowledge fabric.

THE KNOWLEDGE FABRIC FOR FINANCIAL SERVICES

A financial institution can derive insights from a knowledge fabric to enhance business outcomes in numerous ways, from marketing to risk and compliance. We focus on risk and compliance concerns related to KYC compliance, which includes customer identification programs (CIPs), customer due diligence (CDD) and enhanced due diligence (EDD), and financial crime risk management.

Effective KYC and financial crime risk management within FIs is largely predicated on understanding as much about your customer as you can. A customer, in this sense, is one of many entities with which a bank interacts. These entities may include employees, counterparties, and vendors. A knowledge fabric will enhance the risk management processes that govern an FI's relationship with them. This includes a risk-based assessment of the entities at onboarding and over time, evaluating transactional activity against the entities' risk profile. For years, financial institutions have endeavored to create a holistic view of their customers and entity relationships and understand how those relationships may link to other customers and entities within the FI's environments. Holistically understanding an entity relationship enables better risk assessment of that entity. As an industry, substantial gains have been made in understanding the interrelation of entity relationships, thanks to entity resolution tools. The concept of the knowledge fabric enhances the performance of entity resolution tools by infusing the data with location-based intelligence (place) in the digital and physical sense.

FIs must focus on people and entities for compliance with regulations that necessitate that focus. Regulations related to anti–money laundering (AML) and KYC force FIs to create risk-based analyses of customers and their transactions to identify suspicious activity. Further, recent beneficial owner regulations added to FIs' CDD requirements place additional strain on bank resources. FIs must document who the people are behind legal entity customers. In addition, understanding relationships of the owners to other people, places, and entities is important for effectively assessing the risk of legal entity customers and the aggregated risk of the entire relationship, including beneficial owners.

The knowledge fabric enables FIs to understand more about their customers through the enriched data that place provides. In addition, place provides abundant reference data, enabling risk management functions to identify hidden relationships and derive insights that can drive better compliance and risk management. Location intelligence from place data can aid understanding of attributes surrounding an address. For example, location intelligence can enable understanding of crime levels within the area or if the area is under a FinCEN geographic targeting order, if it is a virtual address, or if there are multiple PO boxes operating

from a single dwelling. A knowledge fabric can drive deeper-level insights. Imagine an FI small business customer that owns a strip mall in the center of town. Would it be important to a bank to know if one of its small business customer's tenants was a marijuana-related business? Would the bank have a compliance issue related to that customer by accepting and depositing rent from that business? In this example, gaining insight as to the types of businesses located within the strip mall would provide intelligence to develop a more accurate risk assessment of the customer. The knowledge fabric, with enriched place data, provides FIs an ability to proactively surface risk and compliance issues. Place data enables connections between people, places, entities, and things that could not previously be connected, improving detection of suspicious activity. Figure 1 highlights the drivers and challenges for the banking industry.

FIGURE 1 Drivers and Challenges in Financial Services

Market Trends	Challenges
● Increased regulatory pressure related to KYC compliance, particularly beneficial owner requirements for legal entities	● Legacy system technical debt continues to contribute to data silo problems
● Pressure to resolve false positives in KYC compliance processes	● Multiple unconnected onboarding systems and KYC compliance processes
● Need to deliver omnichannel customer experiences	● Establishing effective ongoing customer risk assessment
● Need to better understand entity activity within a contextual framework	● Understanding entity/ customer behavior and attributes in context
	● Eliminating manual processes within the KYC compliance function

Source: IDC, 2019

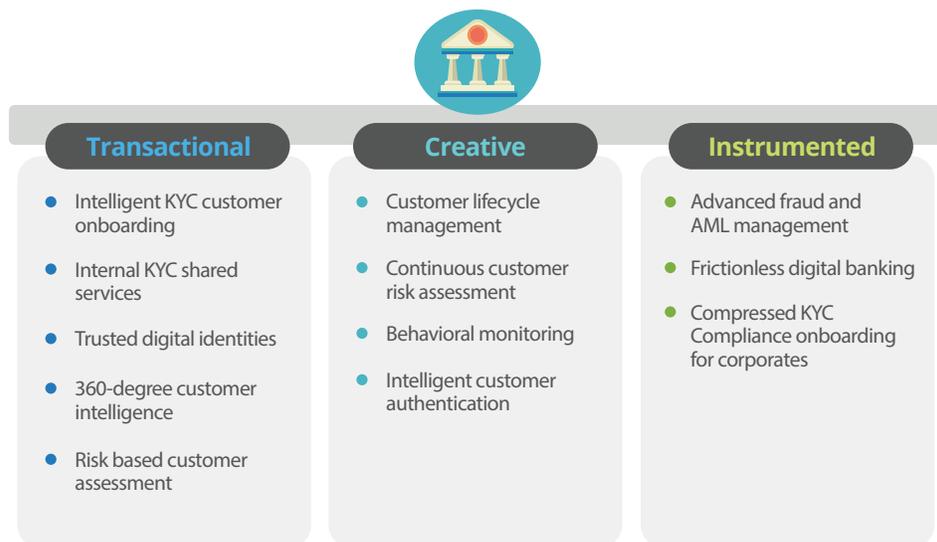# Use Cases in Financial Services Enabled by the Knowledge Fabric

Financial institutions have an imperative to digitally transform their operations and offerings to maintain pace with their digitally determined peers, and not be surpassed by digitally native challenger banks. Leveraging the use of a knowledge fabric will enable FIs to derive

valuable insights that will propel back-office compliance and risk functions while improving the customer experience by reducing friction that the compliance process sometimes causes.

The knowledge fabric, leveraging the power of place intelligence, is the cornerstone for effective financial crime risk management. The rich data that is produced from the knowledge fabric is vital to the effectiveness of entity risk rating, AML, and fraud detection models. Enhancing these models with additional data can help drive down false positives, particularly in the onboarding and screening processes. This may reduce operating expense by as much as 39%, identify and clear suspicious transactions up to 49% faster, and help improve customer experience at onboarding.

IDC's digital mission of connected banking is driven by the need to improve customer engagement in selling, delivering, and servicing financial products. The ability to know information about, and related to, the customer is a key element in delivering positive customer experiences and making risk management decisions at the customer level. The use cases described in Figure 2 are a partial list sourced from *IDC's Worldwide Digital Transformation Use Case Taxonomy, 2019: Banking* (IDC #US44300119, July 2019) for the banking industry. These use cases were selected because place is an important element. In Figure 2, use cases are aligned with the previously described data categories in the IDC white paper, *Digital Transformation and the Need for a Knowledge Fabric,* namely, transactional (pure data — produced with analytics), creative (data produced to drive engagement), and instrumented (processes that leverage data to drive an improved outcome directly).

FIGURE 2 Financial Services Use Cases (Impacted by Place)

Transactional	Creative	Instrumented
• Intelligent KYC customer onboarding	• Customer lifecycle management	• Advanced fraud and AML management
• Internal KYC shared services	• Continuous customer risk assessment	• Frictionless digital banking
• Trusted digital identities	• Behavioral monitoring	• Compressed KYC Compliance onboarding for corporates
• 360-degree customer intelligence	• Intelligent customer authentication	
• Risk based customer assessment		

Source: IDC, 2019

ESSENTIAL GUIDANCE

The most important decision financial institutions with digital transformation aspirations will make in the next two to three years will be the selection of a digital transformation platform that unlocks patterns in the data and between data. Identify a platform that supports insights and automation models with referential integrity through the application of a knowledge fabric, and then do the following:

● Link the categories of reference data together using place as the common denominator. The knowledge fabric will allow analytic and inference models to traverse the corpus of data available at the organization and from external data sources. Linking reference data categories will reduce the time and risk associated with manual organization of data for decision making and risk assessments.

● Enhance entity risk assessments by correlating place awareness to create a more holistic and accurate view of customers, vendors, employees, and other defined entities.

● Integrate place or location–based data into AML and fraud transaction monitoring models to improve model accuracy.

IDC Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-insights-community.com
www.idc.com

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.