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Digital Transformation and the Need for a Knowledge Fabric in Insurance

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 insurance, the knowledge fabric can offer high-precision data about people, places, and things and their interrelationships to effectively augment the underwriting and catastrophic modeling processes. This in turn can help transform the decision making in insurance departments. The knowledge fabric can also provide contextual data about people and their unique preferences to transform customer engagement. It thus helps carriers meet customer expectations in the digital era for best-in-class experiences without compromising a healthy risk portfolio.

THE KNOWLEDGE FABRIC FOR THE INSURANCE INDUSTRY

Insurance organizations face a difficult balancing task in the digital era; they must accept the right risks to maintain a healthy portfolio while delivering best-in-class customer experiences. This is more challenging in an age where customer expectations on how insurance sales and service are conducted are greatly influenced by experiences with digitally advanced industries. Despite the traditional nature of the business and the inflexible legacy landscape, incumbent insurers should operate with speed and efficiency to get the balancing act right. Figure 1 highlights drivers and challenges in the industry.

FIGURE 1 Drivers and Challenges in Insurance



Source: IDC, 2019

Insurance organizations need to deliver “contextual and value-centric insurance” to address customer and market expectations. This is about creating simple, transparent, and unique experiences that are rooted on the principles of proactive risk management and secure, seamless, and contextual engagements across the customer journey. A knowledge fabric can help realize this objective.

A knowledge fabric powered by data and analytics can support property and casualty (P&C) insurance companies in their efforts to effectively handle their portfolio and also succeed in their mission to deliver “contextual and value-centric insurance.” Such a knowledge fabric provides business insights drawn from the deep relationships between people, places, and things.

Use Cases in Insurance Enabled by the Knowledge Fabric

Data-Powered Decision Making

Implementing a simple, technology-driven onboarding process powered by structured and unstructured data from multiple sources is an important consideration to meet the customer experience expectations in the digital era. The idea is to reduce the number of data points to be collected from the customer for verification, risk assessment, and pricing. For this, insurers should transform their underwriting process with accurate location information so as to help expedite the risk analysis.

Hyper-accurate geocoding can provide a comprehensive depiction of any addressable property. In both commercial and personal P&C insurance, making all relevant information available in one place can help build a holistic picture of the risks associated with the property to be insured. This information includes, but is not limited to, a building’s condition and structure, impact due to fire/flood/earthquake, and the residents and their past activities and their socioeconomic status. A knowledge fabric that offers this holistic picture can immensely help the decision making as the data sets containing physical location and the data on people and things are combined to offer a single comprehensive view from which to draw insights. The solution can enable the underwriting function to make faster, more informed, and precise decisions by integrating the underwriting processes with real-time intelligent decision support systems.

Smart Catastrophic Modeling

With the insights derived from advanced analytics, predictive modeling tools, and cognitive capabilities, an insurer’s catastrophic modeling can also be enhanced. Precise estimations for potential risks make this possible. The knowledge fabric can aid insurers to come up with plans for customers across geographies with robust analysis of exposures based on the location and concentration of natural or man-made risks. The users of the knowledge fabric can have greater control over the models because of greater understanding of an insured property’s risk exposure.

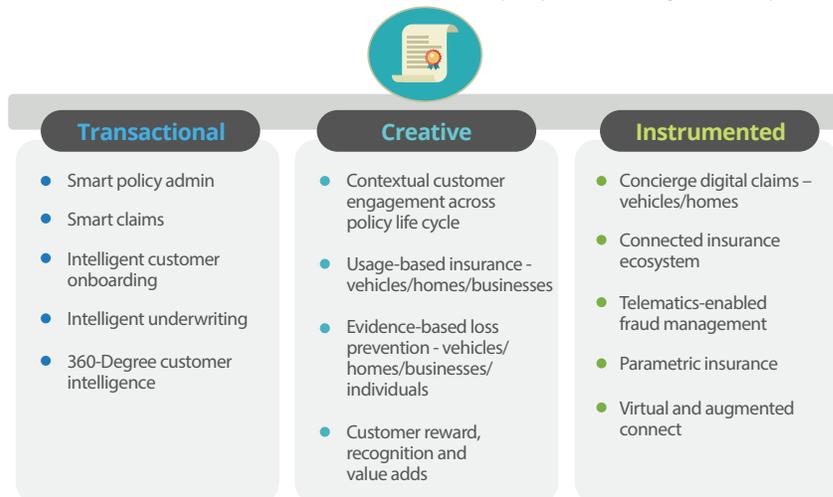
Meaningful Customer Engagement Using Interactive Personalized Videos

One common goal across insurers in different parts of the world is to make insurance simple for their customers. Globally, carriers acknowledge that disclosures and communications should be made simple as complexity can make customers feel vulnerable. Communication should also cater to specific audiences (i.e., different customer segments). Another common goal is more relevant products and services. Based on the responses from 57 U.S. carriers, IDC research observed that P&C insurers are now prioritizing IT initiatives to create highly personalized, contextual, and value-centric products and services as well as attracting and retaining customers.

One way to make customer engagement simple and highly personalized is by establishing a single view of a customer across the organization. A knowledge fabric can provide consistent, complete, secure, integrated, aligned, and easily available customer intelligence from combined external and enterprise sources. This can enable customer outreach and meaningful interactions through new channels such as simple interactive personalized videos. Insurance carriers can thus avoid overwhelming the customers with massive amounts of cumbersome paper-based information on coverage, deductibles, and claims.

The use cases described in Figure 2 are a partial list sourced from IDC’s *Worldwide Digital Transformation Use Case Taxonomy, 2019: Insurance* (IDC #US44600319, June 2019) for the insurance industry, with place as an important element. In Figure 2, the use cases are aligned with the data categories described in the full 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 Insurance Use Cases (Impacted by Place)



Source: IDC, 2019

ESSENTIAL GUIDANCE

The most important decision an insurance company with digital 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. This knowledge fabric will allow analytic and inference models to traverse the corpus of data available at the insurance organization and from external data sources and, if done right, significantly alter the amount of time needed for manual organization of data for accurate decision making and contextual engagement.
- Correlate place awareness to an insurance customer and his/her unique coverage requirements, enabling targeted campaigns, personalized messaging, best-in-class services, and better relationships.

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