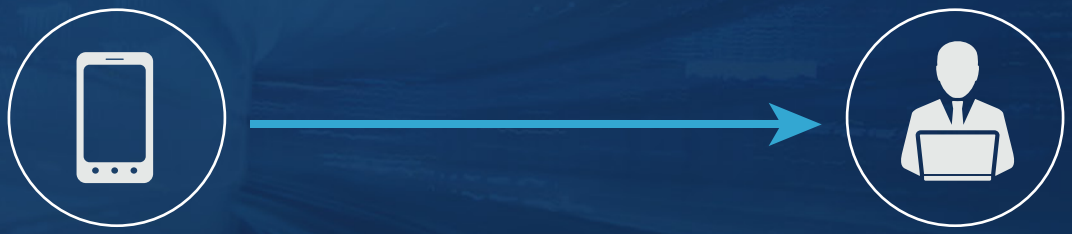
EXECUTIVE BRIEF

Digitizing Insurance Operations

EMERGING SMART ARCHITECTURE™

Appian | HCL

I recently bought a new house. Amongst the administrative chores that come with such a purchase, was notice to my insurance company of an address change and policy update for all our personal treasures from theft, fire and other horrors. Of course every self respecting insurer has an app these days that supports a digital customer experience for their clients to smoothly facilitate this common change. Or that was what I expected. Sure the app was there, but the experience was everything but smooth. It took 14(!) exchanges with the customer service center and 6 hours on the phone to finally get it right.



Even though the information was initially transmitted through an app, the back office still had to manually enter that information into a workflow application and make the change.

Bad data, faulty work instructions and disconnected processes made a seemingly simple change into an administrative nightmare. Safe to say that my "customer experience" was less than stellar.

The moral of this story is not that insurance companies make mistakes. We all do. It is that customer experience is often seen as something that is solved by creating a fancy app or web application. In reality most of our experience is influenced as much by what happens after we tap or click our app as what happens in it. Real digital companies are digital all the way. From their customer interaction to their backend processes. Even their manual processes are digital.

A Smart Architecture™ is emerging as the leader in the race to digitize operations. The "see it, say it, do it" software combination is digitizing the entire value chain and moving people from low value, transactional activities to high value interactions with customers and, innovating for purposes of revenue gains. It is built around providing the right data at the right place.

The combination of record driven, low-code leveraging BPM (Appian), robotic process automation (BluePrism) and cognitive technology (Watson) offers next stage efficiency gains in terms of speed, accuracy, transparency and immediate availability of information.

Organizations looking to simplify operations while setting themselves up for translucent interaction should reconsider how they are approaching digitization of their value chain. We know there is ROI in digitizing operations as the current approach to people, process and technology used in operations today cost up to .61 cents on every dollar[1]. How companies architect their future operations is at the heart of the matter.

"The whole is greater than the sum of its parts"

Aristotle said that, "The whole is greater than the sum of its parts." In other words, when individual parts are connected together to form one entity, they are worth more than if the parts were in silos[2].

This tenant holds true in transformative architectures for Insurers. Insurance companies have been using and/or evaluating several technologies for the past 5 –10 years: Natural Language Processing, Cognitive, Low-Code leveraging BPM and RPA. They have engaged each piece of software to provide particular capabilities — in silos.

Natural language processing (NLP) has historically been engaged in the front office for customer service phone prompts. BPM has historically been engaged by the middle office for orchestration and execution of "process" or standard operating procedures. RPA has historically been engaged by the back-office to facilitate the repetitive task of getting data in and out of heritage green screen systems.

We propose that if these capabilities were integrated and seamlessly connected, they would then create added value to a company, unlike the current silo driven deliveries common in today's practice.

As the human functions by seeing, hearing, thinking and doing — so does a company with this Smart Architecture™. We explain why in this briefing.

The Contribution of Each Part in Today's Insurance Company

To appreciate the value of the whole, we present the capabilities of the individual parts and how they are used today in silos.

AN EXAMPLE:

A customer calls in for service.

If a personal lines customer calls, they call to advise that they acquired a new home and need to update coverage. If a commercial customer calls, they call to advise they acquired an executive vehicle, increased the payroll by X and outsourced billing and collections group — thereby eliminating 30 employees. If a group benefits customer, they call to advise that an employee got divorced, added 3 new employees and gave raises to 25% of the staff. If a life insurance customer, they call to change their address to Florida, change the beneficiary to the neighbor because the kids are ungrateful and withdraw the cash value.

Whatever the product line, insurers generally handle the reach in the same way. The customer service person, working on their siloed "CRM" system creates three different tickets — a task for each of the service items. Each ticket is routed to the work queue of the mid-office operations team that handles that type of request.

The mid-office operations team accepts the task. They then figure out how to resolve the customer ask by reading and applying the standard operating procedures. The standard operating procedures requires the mid-office operations person to go through 1 – 15 different systems to collect preliminary information. The next step requires they apply a rule to the data / facts they just collected. The next step requires they contact someone in another operations area via email.

The next step cannot be taken without someone's reply. With all the data/ facts received, they make a final determination and somehow reach back to the customer. They then send an email with an instruction to the back office to make an update to the contract system. The system then triggers necessary transactions — update billing, generate a confirmation, etc.

For each service item, the customer receives three different responses at three different times, maybe a day later, maybe a week later. And in this current operating environment, there is no way to discern whether the answer given to the customer triggered additional calls on the same or related topics. And, the process starts again, from the beginning.

This image is that of an insurer that has not moved to a more efficient and effective architecture. In the section below we describe how the same set of facts are handled by insurers leveraging pieces of software driving the Smart Architecture™ — in silos.

The Eyes, Ears and Brains — Low-Code Leveraging BPM

Appian

Insurers are leveraging Appian to automatically handle much of the work associated with the standard operating procedures shifting a percentage of the work performed by staff to software. For some time, there is and will be, a synergy between human and machine in the insurance business because the business is fact driven. The permeation of facts is endless and will continue to grow in complexity as the market moves to individual risk-based assessment versus subsidiary-based assessments.

Generally speaking, Appian is used to integrate the customer service front end with the mid and back office to eliminate gaps and create enterprise wide customer experience. Insurers generally create one "ticket" (aka case) per customer and then manage the tasks within concurrently in order that the resolution of each is not communicated until all activities are resolved.

Within a case, Appian automatically performs the steps required by the standard operating procedures and leverages a human to review or perform a task, only as needed. For example, Appian would automatically collect the data required by the first step in the procedure. Appian would then apply the data collected to the rule outlined in the procedure and then automatically collaborate with the human in the next operating area. Once organizations have leveraged Appian to do the work, they generally

leverage the robust security features to expose information and activities externally to customers and their constituents via portals and mobile. With security at the field, page and document levels, all can access Appian to retrieve information they need and complete their work, yet at the same time are prohibited access to others restricted information and action based on their user profile.

The Doer — RPA

blueprism®

Insurers are leveraging BluePrism to automate repetitive tasks generally associated with fetching data from a back-end system or putting data into a back-end system.

This shifts the "human integration" tasks from human to machine.

Generally, insurers are leveraging BluePrism for that last mile of work. Robots learn how to navigate through "F8" "F9" prompts very quickly. Unlike a human, a robot's speed does not compromise quality and rates of error are marginal. Robots generally handle one task at a time so there is a need for an army of robots to handle multiple tasks concurrently.

Standard operating procedures can require one or two pieces of data from many different systems. When the system from which the procedure requires data is in a COBOL or "green screen" system, insurers are leveraging BluePrism to fetch and put the data. These heritage systems

were neither designed for integration nor were they designed to provide data in real time.

Most heritage systems were designed to process data received through the course of the day in batch that generally runs overnight. Such a design makes system to system integrations complex and heavy with testing. BluePrism mimics the key strokes of a human making the integration challenges non-existent.

The Voice

Insurance companies generally use cognitive computing (like Watson) to power Natural Language Processing apps, like chat bots, or voice recognition apps like Siri or Alexa. Chat bots are online 24 hours a day giving companies an "always on" capability, something the digital consumer of today expects from their service providers.

Chat bots work by translating written or spoken text into intents, using AI to recognize the similarity between questions like "Please change the investment fund of my policy into XYZ" and "Make XYZ the new investment fund for my policy". Most chat bots are used these days to answer frequently asked questions.

The real power of cognitive computing is in recognizing patterns and acting on them. Most human interactions are based on patterns as well. Cognitive solutions can analyze those patterns and when a pattern emerges it can

advise the human operator (cognitive augmented processes) or even replace the manual interaction with an automated process.

In practice it works like this: An underwriter will assess a life application based on a set of rules. He or she will look at the age of the applicant, the underlying health, hobbies, employment status, and so forth. Every time the underwriter makes the assessment all data around the process is stored and adds to a profile. Based on this profile the AI bot can give advice to the underwriter: based on your previous decisions you will approve this application with a X% certainty. If the certainty exceeds 99% the AI bot could potentially execute the process without human intervention.

Cognitive computing can be incredibly powerful, augmenting human interaction and decreasing turn-around time on processes. The effectiveness of cognitive computing is however highly dependent on a structured way of capturing process data.

When the individual parts are connected, they have more value as a whole.

A human is at optimal performance when the mind is directing what needs to be said and done. Doing without thought will accomplish little. Speaking before you have the information fills time. And thinking about something without the ability to put it into action becomes an intention.

Integrating Watson, Appian and BluePrism eliminates the low value bulk work of data look up and data entry. It captures data through the entire value chain and optimizes its use in every step of the process. This integration shifts some of the thinking and work management activities from humans to machines and allows employees to spend more time on their high value interaction with your customers. Together these three pieces of software provide the start of a robotic insurer.

And, it is not just any three pieces of software in these respective software quadrants; it is Watson, Appian and BluePrism for specific reasons.

Insurance companies are looking for solutions that can deliver quick benefits. Next generation low-code tools like Appian and BluePrism change the game in (re-)designing your process landscape. No more large multi-year, multi-million programs, but quick 3 week sprints that deliver tangible results straight away. The API driven nature of Watson, Appian and BluePrism allows for easy integration. The cloud-ready architecture of these tools ensures scalability of the solutions you build.

Real digital companies are digital all the way. The Smart Architecture™ of a best of breed solution using Appian, BluePrism and Watson allow insurers to transform their entire value chain one process at a time.

About the Authors

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1. July 2012. McKinsey Global Institute, The Social Economy: Unlocking Value and Productivity Through Social Technologies

2. March 17, 2014. Duf Anderson, SVP and Co-Founder of Active Research

Appian

Appian provides a leading low-code software development platform that enables organizations to rapidly develop powerful and unique applications. The applications created on Appian's platform help companies drive digital transformation and competitive differentiation.

For more information, visit www.appian.com

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