

Why Insurance CIOs Need a Digital Business Platform Roadmap

Published: 5 December 2018 **ID:** G00368741

Analyst(s): Kimberly Harris-Ferrante, Juergen Weiss

Life and P&C insurance CIOs need a digital business platform to meet the business and IT challenges of digital insurance. This platform will be built on open, services-based architecture principles that allow for the creation of applications, and customer and external business partner collaboration.

Key Findings

- A digital business platform combines five different platform components: information systems, customer experience, data and analytics, the Internet of Things (IoT), and ecosystems.
- In order to enable the transformation to digital business, life and P&C insurance CIOs will need to develop roadmaps for digital business platforms, by adding new technology capabilities for all five of these platform components to their existing IT architectures.
- Digital business platforms can't be bought off the shelf. Insurance CIOs will need to gradually add new capabilities to their existing IT architectures without losing sight of their long-term strategic vision.

Recommendations

Insurance CIOs driving digital change via insurance IT innovation:

- Build the capabilities of your digital business platform over time by assessing the capabilities of your current IT infrastructure and balancing them against your firm's business needs and its ambitions for digital transformation.
- Explore your options from both a conceptual and technology perspective by creating a business capability model and mapping it against your current and future IT architecture.
- Use the digital business platform to develop and refine your business ecosystem strategy by defining a set of open APIs to share and enhance digital business processes with customers or business partners.

- Diversify your firm’s portfolio of partners from both inside and outside the insurance industry by developing joint business ecosystem value propositions and enhancing the integration capabilities of your digital business platform.
- Experiment with new products and service offerings by leveraging the agility and scalability of the digital business platform.

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Analysis

Despite all their efforts to drive digital transformation, the digital maturity of most life and property and casualty (P&C) insurers remains low. According to Gartner’s 2019 CIO Survey, only 17% of insurance CIOs believe they are highly effective in making digital an integral part of their business strategy and planning efforts.¹ Even worse, only 5% estimate that they are highly effective in realizing the desired results from their digitalization efforts.

Insurance companies have taken a variety of paths to digital transformation, focusing on various business objectives (see “5 Strategic Approaches to Digital Optimization and Transformation in Insurance”). Most, if not all, have found organizational culture and lack of resources — including skills — major barriers to scaling their transformation efforts. Insurance CIOs trying to support their companies’ digital transformation will need to develop a roadmap for a digital business platform that will enable their firms to execute on new business models.

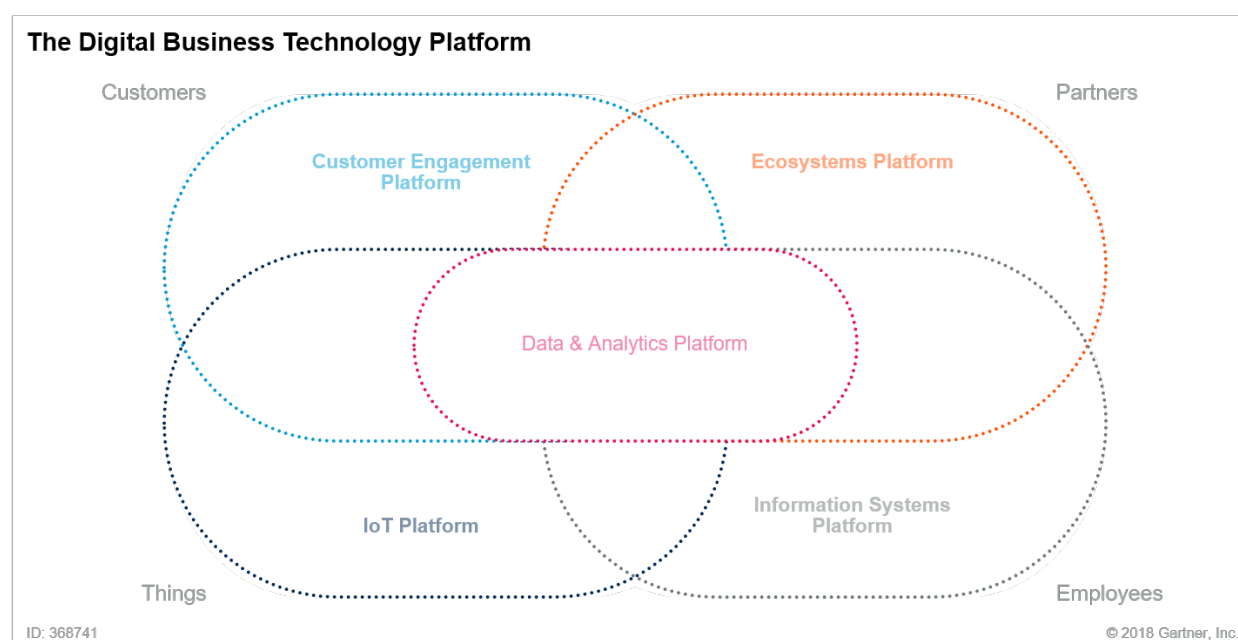
Gartner defines a digital business platform as a business-driven framework that enables a community of partners, providers and customers to share and enhance digital processes and capabilities or to extend them for mutual benefit. This framework allows for combinations of business models, leadership, talent, delivery and IT environments that ultimately power digital business ecosystems. Most insurers currently lack these capabilities. Their IT environments are typically made up of monolithic IT systems, siloed and often redundant business applications,

legacy business processes, and closed, inside-out architecture models that make it difficult to seamlessly integrate or communicate with external partners. Developing a digital business platform roadmap will help insurance CIOs to overcome these limitations and drive digital change (see “The Top 10 Digital Insurance IT Imperatives for Ensuring IT Agility and Innovation Success”).

Basic Considerations for a Digital Business Platform

A digital business platform is more than just a set of different applications or technologies (see Figure 1). Insurance CIOs should, instead, think of it as a set of IT services that can be easily rearranged to meet any need. The openness and composite nature of a platform are ideally suited to the external-facing capabilities required by new digital business processes, business moments and models (see “The Anatomy of a Business Moment”).

Figure 1. The Gartner Digital Business Platform



Source: Gartner (December 2018)

Each of the five different components of a digital business platform has unique capabilities:

- **Information systems platform** — Supports a company’s back-office operations, such as core insurance and business support systems (for example, policy administration and financial accounting).
- **Customer experience platform** — Contains the main customer-facing elements, like customer and intermediary portals, mobile apps, and digital experience platforms.

- **Data and analytics platform** — Contains information management tools, metadata models, data architecture structures, and analytical capabilities (for example, fraud analytics) or artificial intelligence (AI) capabilities.
- **Internet of Things (IoT) platform** — Connects physical assets for monitoring, optimization, control and monetization. Capabilities include connectivity, analytics and integration to core insurance applications. Some examples are telematics, connected home devices and wearable devices.
- **Ecosystems platform** — Supports the creation of, and connection to, external business ecosystems. Blockchain and API orchestration and management tools are examples of potential ecosystem-related technologies.

We've deliberately placed data and analytics at the center of Figure 1. That's because data intelligence needs to be at the center of insurance operations — from product configuration to marketing to underwriting and claims — and used to fuel insurance decision making. This is the only way data can be properly leveraged throughout the insurance value chain (and the future business ecosystem) and centralized for adequate governance.

A digital business platform supports three different models of innovation:

- **Traditional inside-out innovation** — The IT department delivering value to the business by providing people, processes and technologies.
- **Outside-in innovation** — The IT department providing value to clients, business partners and any other stakeholders.
- **Outside-out innovation** — IT and business augmenting internal innovation capabilities by leveraging external partners for ideation, test and implementation of new business models and technologies.

Insurance CIOs will not be able to buy an off-the-shelf digital business platform, and should be cautious about any vendors' claims of building such a platform. In reality, insurance CIOs will need to avoid a rip-and-replace approach, and will have to develop long-term vision and gradually evolve their existing IT architectures. They will need to evaluate each capability of the digital business platform in detail to determine the key technologies needed to support that function. They will then need to conduct a gap analysis to identify technologies that are already contracted, versus those that are needed to fill necessary gaps for business strategy execution.

In the end, insurance CIOs need to balance the five components of the digital business platform to create individual architecture roadmaps that are specific to their markets, lines of business, business models and long-term digital visions.

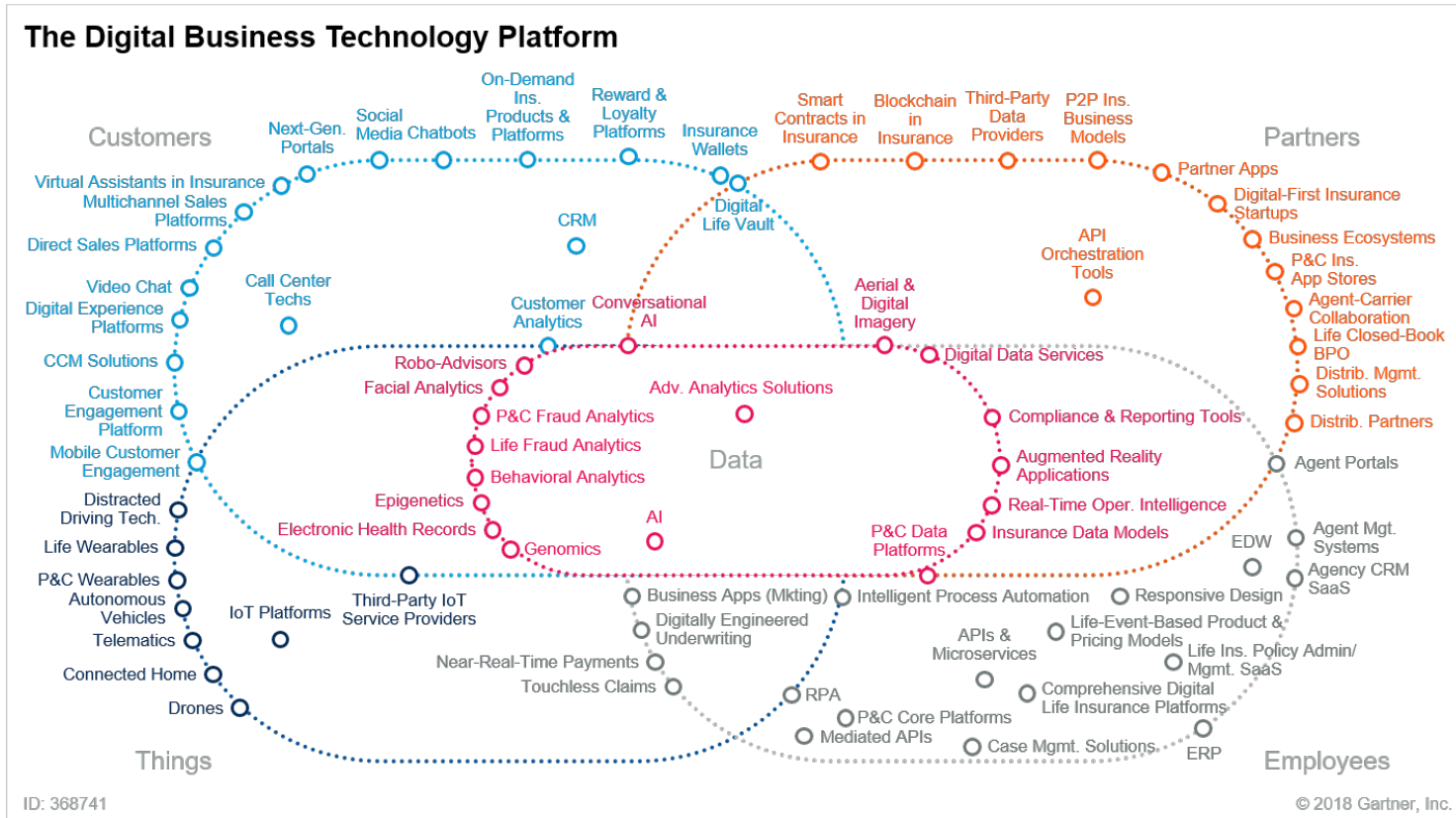
The Digital Business Platform for Insurance

Gartner's insurance Hype Cycles have identified almost 100 technologies that life and P&C insurance CIOs can add to their personal digital business platform roadmap to enable both business optimization and digital transformation. While no insurance company will need all of these

technologies, they will need to carefully prioritize their investments based on their digital strategy, vision and risk tolerance.

To further evaluate the potential of these technologies, we have mapped each one to one of the five components of the digital business platform (see Figure 2).

Figure 2. The Gartner Digital Business Technology Platform for Insurance



Source: Gartner (December 2018)

The assignment of these technologies will show CIOs the dependency and interconnectivity of the various technologies in relation to the five components of the digital business platform. It's obvious, for example, that investments in new IoT capabilities will likely require the establishment of a new business ecosystem and the development of integration capabilities of existing core insurance systems.

A closer examination will identify the most impactful technologies for each platform component:

- **Data** — There are many mature and emerging technologies that insurance CIOs will need to deploy to build and enable enterprise intelligence. Some of the most critical today are fraud analytics, behavioral analytics, advanced analytics solutions (for example, predictive modelling), and AI. By implementing these, data can be leveraged for loss prevention, customer retention or improved product pricing, for example. Use cases will emerge that cross the entire value chain, especially for tasks such as marketing, sales, customer service, underwriting, actuarial and claims. To support this vision, CIOs will also need to build competencies to support data science to enable effective algorithm development.
- **Customers** — Customer experience enhancement is becoming more critical than ever for both life and P&C insurance CIOs. Building out engaging interactive platforms that provide an optimal user experience through an omnichannel network is essential. To enable this new digital-enabled experience, it is imperative that technologies like virtual assistants, video chat, digital experience platforms, the IoT and AI/chatbots are deployed. This will enable insurance companies to drive more effective customer self-service while promoting improved customer engagement.
- **Things** — The IoT is an emerging area for most life and P&C insurers. Auto insurers have been experimenting with and deploying telematics for some time, but IoT implementation is immature in most other product lines. This is especially true for life insurance companies, which still lack business cases for large-scale deployment of wearables (see “Life Insurance CIOs Should Push the IoT Pause Button Until Their Path to Success Is Clearer”). As insurers’ IoT strategies mature, their digital platforms will need to support wearables, IoT platforms, reward and loyalty programs that leverage IoT data, connected home devices, telematics, autonomous vehicles and drones. This need will be greater for P&C insurance CIOs, but their life counterparts should not overlook the long-term potential of the IoT as part of their platforms. The IoT will be essential long term as insurers implement programs for customer connectivity, short term for premium discounts and loyalty programs, and long term as they seek to implement new products that are based on individualized risk.
- **Partners** — Gartner data shows that ecosystems in insurance will continue to expand over the next few years, with innovative insurers embracing business ecosystems as a key component of their digital insurance transformation strategies (see “The 7 Myths About Business Ecosystems That Insurance CIOs Can’t Afford to Believe”). To enable business ecosystems, insurance CIOs will need to ensure openness, which will require API mediation tools, smart contracts, blockchain, digital agent solutions and insurance exchanges. These technologies will create the foundation for open innovation and effective ecosystem development.

- **Employees** — Core operations will be modernized, creating efficiencies and scale that were never before possible. Key technologies to enable this will include advanced underwriting solutions such as those leveraging AI, analytics and collaboration platforms, life-event-based product and pricing models, and billing as a service. Others will be modern core systems (many of them cloud enabled, modular and built using APIs) or even offered off-premises as SaaS, software-designed architecture, microservices and advanced automation tools like robotic process automation and intelligence process automation.

Developing a Digital Business Platform Roadmap

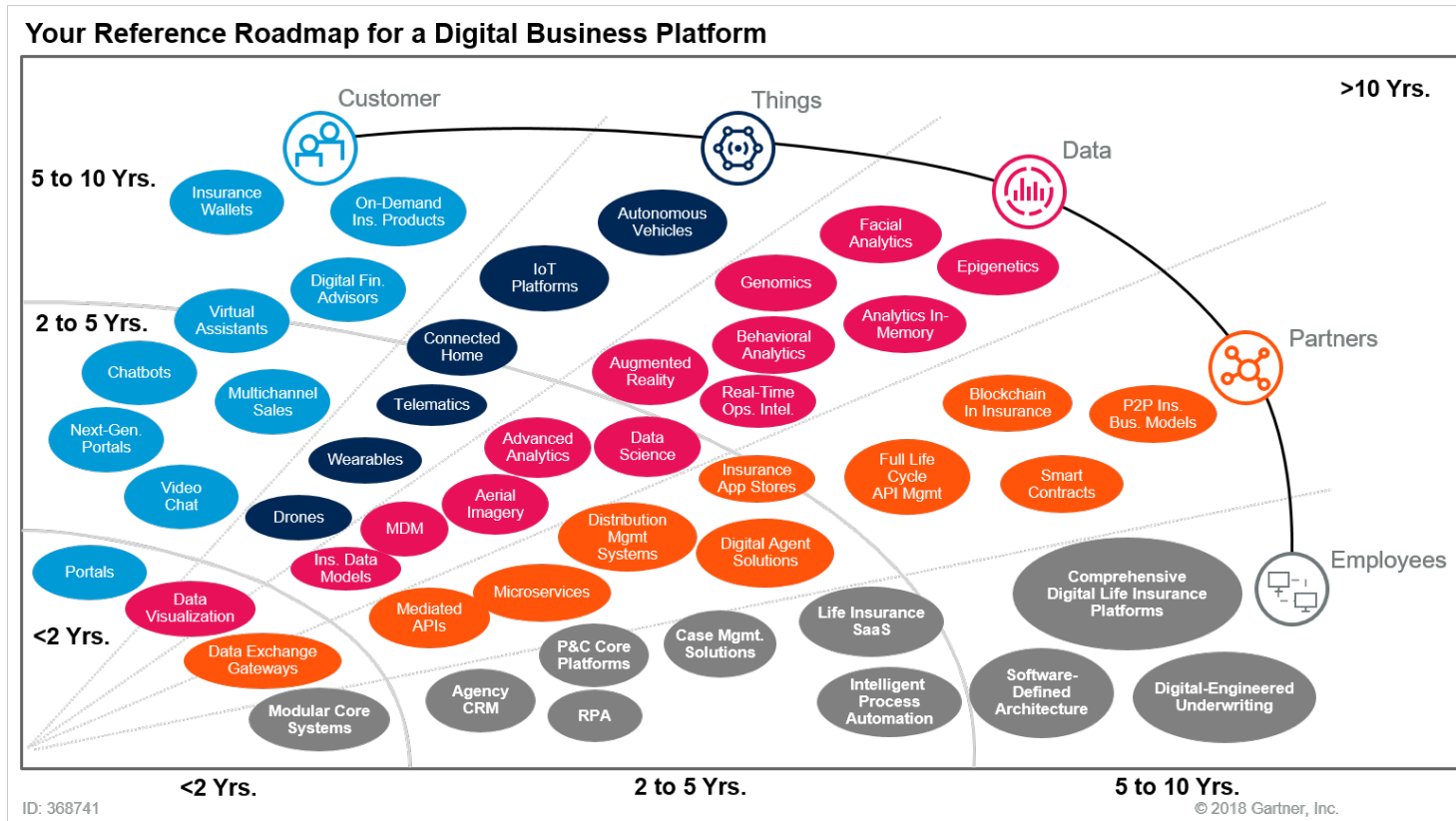
Ideally, an insurer's digital business platform will evolve over time, as its digital maturity evolves and its traditional business models are gradually enhanced or modified. We expect the technology trends that we place on the Gartner insurance Hype Cycles to be divided into five major phases or eras:

1. **Incumbent insurance** — This is the current state of the insurance industry, in which traditional value chains and business models dominate strategies.
2. **Industrialized insurance** — The industry will increasingly focus on further driving operational efficiencies, to lower the cost of operations by eradicating inefficiencies caused by system duplication or lack of connectivity. Business models will remain the same, but technologies will be implemented for faster, cheaper and more efficient processing through the traditional channels, with traditional products.
3. **Integrated insurance** — This era is when insurers begin to expand their partnership models, seeking new product, distribution and ecosystem partners. This demands a more fluid IT environment as transactions often occur outside the corporate firewalls, data is exchanged with partners, and transactions are shared between internal and external systems. Integration for straight-through processing is a requirement, as well as increased demands for business process management and security.
4. **Intelligent insurance** — In this phase, the industry will be entering an era of deep real-time insights. Data will be leveraged in new and creative ways, applied in real time, and support the implementation of algorithmic business models for use in automation and decisioning. This includes the use of new data for underwriting or real-time fraud modeling using advanced predictive modeling technologies. While today's data is often dark and unused, innovative insurers will seek to augment data with new data (for example, third-party, IoT or customer-shared data). And they'll use advanced technologies like predictive modeling and machine learning to obtain more business impact from that data.
5. **Invisible insurance** — Insurers will increasingly be offering products and services that are embedded into items or things that they insure (for example, smart home repair services or roadside/emergency assistance coupled in auto insurance policies). Other products and services will be offered in product bundles that are packaged based on life events (often mixing insurance products with noninsurance products that are offered by ecosystem partners). Consumers won't have to make insurance decisions in the way they do today. Even first notice of loss and claims adjusting will be invisible, requiring no action. Insurance will become a utility,

and ecosystem partnerships with IoT service providers, auto manufacturers, home security companies and other service providers will become key.

Insurance CIOs should map out where they are today, in terms of these five eras, and define their specific expectations as and when their companies will be mature enough to seize those business opportunities. This will enable them to identify and implement the specific technologies they'll need to support the next stages of their digital transformation (see Figure 3).

Figure 3. Developing Your Own Roadmap for Digital Insurance



Source: Gartner (December 2018)

Every insurer's digital business roadmap will be different, and the pace at which insurance CIOs are able to execute on their roadmap will depend on several factors, including the availability of budget and skill sets. But it's essential that all CIOs have a roadmap in place that provides a path for the future. This framework will allow them to map out the right technologies based on their digital strategy, and help them accurately prioritize emerging technologies to generate improved return on investment and business impact.

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"Hype Cycle for Digital Insurance, 2018"

"Hype Cycle for Life Insurance, 2018"

"Hype Cycle for P&C Insurance, 2018"

"The 7 Myths About Business Ecosystems That Insurance CIOs Can't Afford to Believe"

"The Anatomy of a Business Moment"

"5 Strategic Approaches to Digital Optimization and Transformation in Insurance"

"Life Insurance CIOs Should Push the IoT Pause Button Until Their Path to Success Is Clearer"

"The Top 10 Digital Insurance IT Imperatives for Ensuring IT Agility and Innovation Success"

Evidence

¹ **The 2019 Gartner CIO Survey** was conducted online between 17 April and 22 June 2018. All respondents, who included Gartner Executive Programs members and other CIOs, were the most senior IT leaders for their overall organization or a part of their organization (for example, a business unit or region). The total sample was 3,102, with representation from all geographies and industry sectors (public and private) including 151 in the insurance industry. The survey was developed collaboratively by a team of Gartner analysts and was reviewed, tested and administered by Gartner's Research Data and Analytics team.

More on This Topic

This is part of two in-depth collections of research. See the collections:

- Scaling Digital Leadership — Keep the Momentum Going
- Getting to the Details of the Digital Platform: A Gartner Theme Insight Report

GARTNER HEADQUARTERS**Corporate Headquarters**

56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

Regional Headquarters

AUSTRALIA
BRAZIL
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