

# Confidence in the Cloud

Insurers Make the Leap for Business Agility

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*“Cloud shift is not just about cloud. As organizations pursue a new IT architecture and operating philosophy, they become prepared for new opportunities in digital business, including next-generation IT solutions such as the Internet of Things.”*

GARTNER<sup>1</sup>

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## Executive Summary

Cloud computing is known as one of the most disruptive forces in IT. In the last decade that cloud systems have become widely available to enterprise, early adopters are proving that the benefits go far beyond cost savings. Insurers are becoming aware that digital transformation is simply not possible without moving core applications to the cloud.

The SaaS model turns the on-premises model upside down. By running systems in the cloud, organizations are no longer forced to buy hardware and infrastructure, maintain software, or monitor updates. Those responsibilities are now considered excess baggage.

With fewer demands on IT departments to manage on-premises solutions, insurance companies are discovering that they can devote more resources to innovation and business growth. Insurance IT executives are exploring ways to transform their core systems. The insurance industry is finally looking within and asking tough questions: How well do our core systems help us meet our business goals? Are we equipped for the future? What exactly do we need from our core systems to succeed now and in the future?

In this white paper, we explore the insurance industry’s shift from rejecting the cloud to moving its most important business functions and sensitive data to the cloud. We discuss the strategic benefits of cloud solutions in the insurance industry, and we introduce Oracle’s latest core insurance solutions now available in the cloud.

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<sup>1</sup> Gartner, “Market Insight: Cloud Shift—The Transition of IT Spending from Traditional Systems to Cloud,” Ed Anderson, Michael Warrilow, 18 May 2016

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*“We used to think the cloud was this black box. We thought it was untested, unproven, untrusted technology.”*

**JOHN ALVERTOS**  
PARTNER  
FORTIUM PARTNERS

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## First Impressions of the Cloud

When cloud computing became widely available a decade ago, IT executives were generally curious, yet cautious. Startups were among the first to embrace the idea of software as a utility. Meanwhile, the risk-averse insurance industry remained skeptical for some time.

John Alvertos, a cybersecurity and IT consultant at Fortium Partners, is also a former insurance CIO. He recalls the widespread reluctance among IT decision makers to consider cloud computing in the early days.

“We used to think the cloud was this black box,” he said. “We thought it was untested, unproven, untrusted technology.”<sup>2</sup>

Insurers remained skeptical in the beginning, opting to observe other industries before testing the waters directly. As Novarica analyst Tom Benton recalls, financial services firms started experimenting with cloud-based services like e-mail archiving. Then SaaS business productivity tools like Microsoft Office 365 became popular in many sectors. From there, insurers gradually began using the cloud for similar support functions.<sup>3</sup>

Enterprise organizations need to acclimate to managing workloads, seeking tech support, and following new payment models before transitioning primary functions off-premises. Companies typically follow four stages of cloud adoption, according to CompTIA, a nonprofit IT trade association:

1. **Experiment:** This is the stage of uncertainty, where the company assesses whether or not the cloud offers value for their purposes. The company may experiment with a free trial or build sample virtual instances.
2. **Noncritical use:** The company uses the cloud for peripheral applications. The company’s core business systems and most sensitive data remain untouched.
3. **Full production:** The organization is convinced the cloud is the best option for IT, including systems that are critical to their core business.
4. **Transformed IT:** The cloud is fully integrated into the organization’s IT systems. Users are focused on changing the way they work to capitalize on the cloud. They’re exploring new ways to innovate and grow the business.<sup>4</sup>

Many insurance companies are in the second stage, relying on cloud services for noncritical functions while exploring the possibilities of stepping up to full production. They recognize that the cloud holds massive potential, yet they’re holding back for different reasons: they’re mitigating security concerns, resolving integration questions, or having difficulty convincing others about the cost savings.

These insurers are in somewhat of an unnerving position. They’ve already experienced the cloud, and they see their competitors moving quickly and reaping the benefits. Yet their organization continues to conduct its most important functions —e.g., policy administration, claims adjudication, and authorizations—on aging legacy systems. Their IT departments have invested heavily in maintaining those systems for decades.

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<sup>2</sup> John Alvertos, interview by Millie Lapidario, 23 November 2016

<sup>3</sup> Tom Benton, interview by Millie Lapidario, 18 November 2016

<sup>4</sup> CompTIA, “Trends in Cloud Computing,” September 2016, <https://www.comptia.org/resources/trends-in-cloud-computing-2016?c=42071>



Fortunately, perceptions about cloud computing are changing. Cloud-first leaders from other industries are proving that the benefits are too irresistible to pass up. Cost savings alone is enough to pique insurers' curiosity. New developments in cloud security and more evidence in the transformational impacts strengthen the case even further.

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*“Cloud computing is breaking down traditional technology barriers as line of business leaders and their IT organizations rely on cloud to flexibly deliver IT resources at the lower cost and faster speed that businesses require. Organizations across all industries are now free to adapt to market changes quicker and take more risks, as they are no longer bound by legacy IT constraints.”*

**EILEEN SMITH**

PROGRAM DIRECTOR, CUSTOMER INSIGHTS AND ANALYSIS

IDC

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## Business Agility: The Impact that Matters Most for Insurance

There are many well-known benefits of cloud computing services, and they all contribute to greater profitability for all industries:

- » greater scalability
- » speedy deployment
- » lower total cost of ownership
- » standardization
- » higher productivity
- » improved customer experience

In insurance, the most fundamental impact of cloud computing is business agility. The sluggishness that was once ingrained in long-term plans such as deploying new systems, offering new lines of business, and expanding to new markets is no longer acceptable. The cloud eliminates the need for companies to configure new hardware, manage updates, run data centers, and much more. Essentially, the cloud breaks through the barriers that once inhibited progress.

“Organizations across all industries are now free to adapt to market changes quicker and take more risks, as they are no longer bound by legacy IT constraints,” IDC analyst Eileen Smith said in a statement.<sup>5</sup>

Insurance companies that remain entrenched in old systems cannot react quickly enough to market changes. Those that are using the cloud for ancillary functions cannot undergo the same level of transformation.

*Harvard Business Review's* recent global survey of 376 business and technology leaders illustrates a key difference between companies that have approached the cloud holistically and companies that have used the cloud ad hoc:

“Cloud leaders—companies that take a more managed, enterprise approach—are significantly more likely to have launched new products and expanded into new markets.”<sup>6</sup>

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<sup>5</sup> IDC, “Worldwide Public Cloud Services Spending Forecast to Reach \$195 Billion by 2020, According to IDC,” Business Wire, 10 August 2016, <http://www.businesswire.com/news/home/20160810006003/en/Worldwide-Public-Cloud-Services-Spending-Forecast-Reach>

<sup>6</sup> Harvard Business Review, “Cloud Computing Comes of Age,” 2015, [https://hbr.org/resources/pdfs/comm/oracle/19128\\_HBR\\_Oracle\\_Report\\_webview.pdf](https://hbr.org/resources/pdfs/comm/oracle/19128_HBR_Oracle_Report_webview.pdf)

## Initiatives in the Past Three Years

Percentage that have undertaken the following in the past three years:

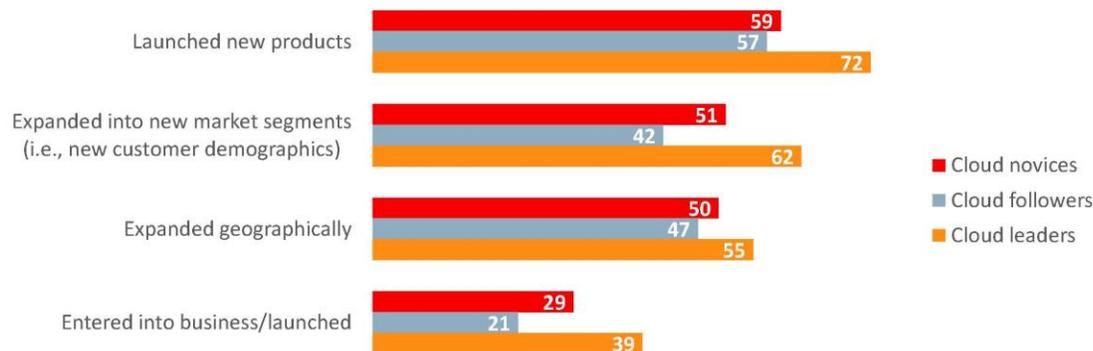


Figure 1. Reprinted with permission from Harvard Business Review Analytic Services Report, “Cloud Computing Comes of Age.” Copyright 2015 by Harvard Business Publishing.

The benefits and the implicit effects of migrating core systems to the cloud can define an insurance company’s competitive advantage in the crowded marketplace.

### Cost Savings Is Real

In the early days of enterprise cloud computing, cost savings had been a controversial topic. It wasn’t clear if cloud systems reduced costs compared to on-premises systems, particularly when users sought to add extra layers of security and redundancy, according to Seth Robinson, senior director of technology analysis at CompTIA.<sup>7</sup>

Cost comparisons between cloud services and on-premises systems can be misleading without the proper context. For example, one might compare an annual cloud subscription to an on-premises annual support fee. That surface-level comparison does not account for the additional costs that come with on-premises systems such as upgrades, IT staff, infrastructure, and hardware.

<sup>7</sup> Seth Robinson, interview by Millie Lapidario, 15 November 2016

# The 'Iceberg' of Underlying IT Costs

## Example Cost Comparison Between On-Premises and Cloud Service

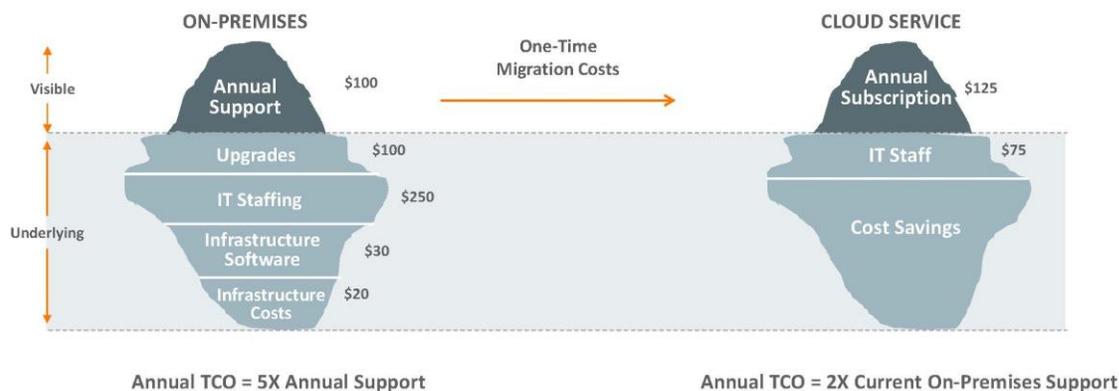


Figure 2. Sample cost comparison of annual total cost of ownership between on-premises and Oracle cloud solution. The figure is not based on actual prices or costs. TCO = total cost of ownership

Every organization will likely face tough questions when conducting a cost analysis. Companies that have custom, on-premises systems must weigh the pros and cons of replacing those systems if they are not compatible with the cloud. As Alvertos explained, a system that has been customized over many years reflects the way the company functions internally. Replacing custom systems requires organizations to evaluate their entire business process including day-to-day operations and workflows.

“That’s one area that may encounter the most resistance from management,” he said. “They may not necessarily see the value of giving up systems they know and trust.”<sup>8</sup>

Cloud computing proponents in an organization may have a challenging experience convincing others that their IT systems need a makeover. Nevertheless, one cannot ignore the unsustainable costs to maintain legacy core systems. An average of “80 percent of time, energy and budgets are consumed by the care and feeding of the existing IT stack,” according to a study by Deloitte.<sup>9</sup>

A key factor that affects cost is whether or not a company keeps an on-premises system while using SaaS simultaneously. The dual infrastructure prevents significant cost savings. In a recent Novarica study of insurance CIOs, the ability to sunset existing solutions was the No. 2 reason insurers adopted SaaS for their core applications. Cost reduction came in third.<sup>10</sup>

Overall, SaaS inherently lowers the total cost of ownership by relieving the company of heavy overhead costs. The cloud service provider takes on the burden of capital expenses, as well as operating and maintaining applications

8 John Alvertos, interview by Millie Lapidario, 23 November 2016

9 <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-fsi-tech-trends-insurance-perspective.pdf>

10 Novarica, “Cloud/SaaS in Insurance Core Applications,” April 2016, <http://novarica.com/core-insurance-system-cloud-report/>

and underlying hardware. For some companies, cost reduction may not be evident until they've reached the later stages of cloud adoption.

Changing results of an annual survey by CompTIA offers insights into the cost saving benefit. In "2016 Trends in Cloud Computing," the nonprofit trade association surveyed 495 U.S. firms that had adopted cloud solutions. For several years beforehand, respondents had indicated various reasons they had implemented cloud systems. Cost cutting returned to the top spot in the latest survey, driven primarily by large companies.<sup>11</sup>

Robinson, who authored the study, said those companies were likely in the later stages of cloud adoption and may have reduced capital expenditures in the past. The survey results indicate the cloud is cost-effective in the long run, he said.<sup>12</sup>



## Changing Perceptions of Security in the Cloud

The unrelenting surge of cyber attacks in recent years has triggered a more vigilant IT atmosphere. Researchers have often found security to be the leading fear, concern, or complication that stood in the way of cloud adoption. Security will always be a high priority, especially for regulated industries like insurance. Meanwhile, IT leaders are becoming better informed about the cloud, and the dialogue on security is changing.

IT leaders are now moving to the cloud because of—not despite—security concerns. Organizations are beginning to think of security more holistically in their organization rather than as an add-on. They're also realizing that their own operational security measures are not as robust as the security offered by the top cloud providers.

In a recent survey of IT and security professionals by Cloud Security Alliance, 65 percent were confident that the cloud had equal or greater security than internal IT systems.<sup>13</sup>

"There's plenty of evidence to suggest that the cloud is more secure than on-prem," said Alvertos, a cybersecurity and IT advisor. He explained that security breaches often happen because the systems are not being properly maintained or monitored well enough. IT departments managing their own data centers are typically struggling to upgrade and patch their systems every time vendors release new updates. They're tasked with identifying anomalies, making sense of red flags, and responding to potential threats. In conditions like those, Alvertos said, "it's just a matter of time before they slip."

In-house cybersecurity teams face additional limitations with traditional on-premises solutions. Inadequate storage, processing power and scalability, for example, can hamper data visibility and increase the likelihood of false positives.

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<sup>11</sup> <https://www.comptia.org/resources/trends-in-cloud-computing-2016?c=42071>

<sup>12</sup> Seth Robinson, interview by Millie Lapidario, 15 November 2016

<sup>13</sup> Cloud Security Alliance, "State of Cloud Security 2016," <https://downloads.cloudsecurityalliance.org/assets/board/CSA-GEAB-State-of-Cloud-Security-2016.pdf>



Relying on established, reputable cloud vendors can give users the advantage of exponentially greater security investments, technical staff, and expertise compared to internal IT departments. Security standards do vary among cloud providers, which is why choosing a qualified provider is critical. Partnering with trusted vendors for cloud services allows users to “let go of some of the heavy lifting,” Alvertos explained.<sup>14</sup>

The general discussion has moved beyond whether or not the cloud is secure, and onto more advanced topics such as how to mitigate a company’s security concerns. Buyers are asking better questions about security and developing security programs that address how to detect and respond to breaches. They’re also developing the requirements they need from cloud providers such as data encryption, control over encryption keys, identity management, the ability to monitor user activities, and more. Cloud adopters are also learning to work with their vendors to develop customized solutions. As cyber attacks become increasingly more organized and targeted, cloud security will continue to be the most important consideration for evaluating cloud providers.



## The Near Future Is in the Cloud

Cloud adopters have proven that the benefits of going off-premises are too irresistible to pass up. As more companies from multiple industries capitalize on greater agility, cost savings, and strengthened security, the SaaS model continues to spread throughout the enterprise world. Multiple studies show resounding agreement among analyst firms, research organizations and IT experts: the future is in the cloud.

The shift is a fundamental change in priority from building IT to consuming IT.<sup>15</sup> Forrester Research predicts further acceleration in the rate of companies implementing public, private, and hybrid cloud systems in 2017. More than 1,000 enterprise IT decision makers in North America and Europe shared their plans for the next 12 months: 38 percent were building private clouds, 32 percent were procuring public cloud services and the rest were planning to implement some form of cloud technology within the next year. In the same survey, 59 percent indicated they were adopting a hybrid cloud model.<sup>16</sup>

The year 2018 is expected to be the turning point when the majority of all enterprise workloads run in the cloud. Analysts at 451 Research predict that figure will be 60 percent by midyear.<sup>17</sup>

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<sup>14</sup> John Alvertos, interview by Millie Lapidario, 23 November 2016

<sup>15</sup> McKinsey & Company, “IT as a Service: From Build to Consume,” September 2016, <http://www.mckinsey.com/industries/high-tech/our-insights/it-as-a-service-from-build-to-consume>

<sup>16</sup> Clint Boulton, “6 Trends That Will Shape Cloud Computing in 2017,” *CIO*, 2 November 2016, <http://www.cio.com/article/3137946/cloud-computing/6-trends-that-will-shape-cloud-computing-in-2017.html>

<sup>17</sup> <https://451research.com/blog/764-enterprise-it-executives-expect-60-of-workloads-will-run-in-the-cloud-by-2018>

## Insurance Industry Moves Cautiously, Slowly to the Cloud

Not too long ago, insurance was one of the most reluctant industries to embrace the cloud. Insurers initially rejected the idea of using the cloud to run core business activities and store sensitive data. That perception is slowly changing as industry-specific, core SaaS applications are becoming widely available in sectors including pharmaceutical, healthcare, and financial services.

In the past, insurance carriers looking to replace legacy systems would typically include SaaS inquiries in their requests for information (RFIs). They would ask vendors if they offered SaaS solutions, yet few insurers were genuinely interested up until the last year or so, Benton said.

As insurers have become more familiar with cloud security standards and pricing models, they've become more sophisticated in their due diligence. Some are working with consultants and some are learning from parent companies that have already implemented cloud services. More insurers also understand the security certifications with which to qualify vendors.

"Confidence in the cloud has grown," Benton said. "The key factor is vendor implementation experience."<sup>18</sup>

New studies indicate that more insurance companies are entering the later stages of cloud adoption. In a 2016 Novarica study of CIOs from insurance carriers (both P&C and life/annuity), more than 50 percent of respondents had implemented a SaaS-based core system or were considering implementing later the same year. Here are more findings from the same study:

- » More than 60 percent of life insurers have installed or are implementing SaaS core systems, typically for new lines of business.
- » Forty percent of large P&C insurers and 23 percent of midsize P&C insurers are already running at least one core SaaS application.
- » A majority of insurers who have launched SaaS core applications (85 percent) reported a net positive impact.<sup>19</sup>

An earlier study by Ovum also discovered that a growing proportion of insurers are using cloud services for a broad range of core functions including

- » customer-focused activities such as customer servicing
- » back-office functions such as policy administration and claims
- » complex, domain-specific activities such as underwriting and fraud detection<sup>20</sup>

Benton, who authored the Novarica study, discovered that the size of the carrier affects the company's rationale for moving core applications to the cloud. Small carriers are attracted to SaaS primarily for cost savings. They typically have limited resources to manage IT, and the cloud offers a way to move IT offsite. On the other hand, large carriers already have a large investment in infrastructure and are more interested in the speed of deployment for their new products.<sup>21</sup>

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<sup>18</sup> Tom Benton, interview by Millie Lapidario, 18 November 2016

<sup>19</sup> <http://novarica.com/core-insurance-system-cloud-report/>

<sup>20</sup> Ovum, "The Critical Impact of Cloud for Insurance on Business Transformation," 2014

<sup>21</sup> Tom Benton, interview by Millie Lapidario, 18 November 2016

Below is a closer look at the breakdown by carrier type and size:

## Adoption of SaaS Core Applications

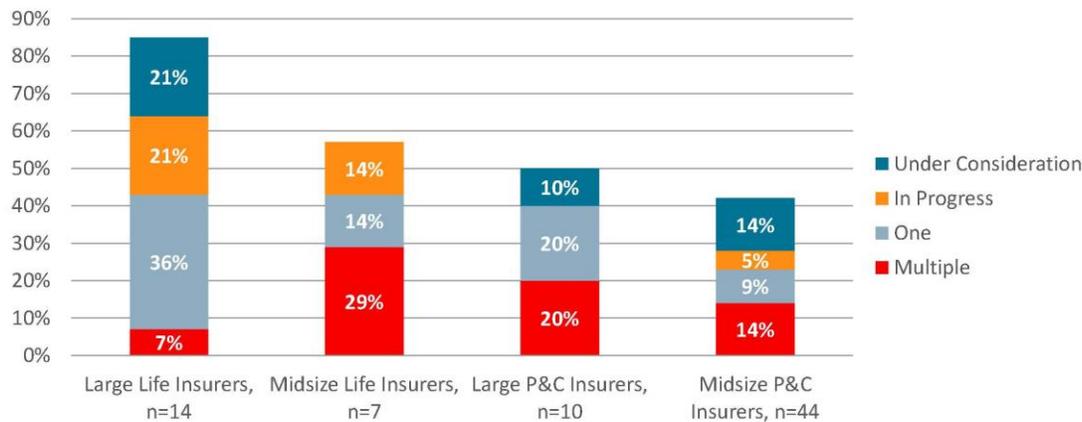


Figure 3. Source: Novarica, "Cloud/SaaS in Insurance Core Applications," April 2016

### Oracle Ushers Insurance to the Cloud

Slowly but surely, innovation is taking a front seat to IT management in the insurance industry. Enterprise organizations need flexibility, lightning speed, and freedom from the burdens that come with on-premises systems. Regulated industries, in particular, need solutions designed for their unique needs. Oracle is evolving to meet those needs.

Oracle is the only large-scale cloud provider that builds the entire stack in-house: hardware, firmware, software-defined networks, and business software. Through Oracle's global business units and Industry Cloud, we're successfully migrating core software applications to cloud services designed to meet the complex needs of each industry.

So far, Oracle Industry Cloud serves more than 17,000 customers with more than 3 million end users spread across 100 countries. Oracle's industry SaaS offerings address the global regulatory and security needs of each industry that we serve. Our heightened standard of security and compliance, based on an ISO 27000 framework, safeguards data from cybercriminals and unwarranted government demands. Oracle SaaS offerings are designed to meet market compliance standards such as HIPAA, PCI, and SOC 1 and SOC 2 certification.

#### Highlights of Oracle's Multilayer Approach to Industry Cloud Security

- » data encryption
- » data center physical security
- » network security
- » administrative access and control
- » configuration and vulnerability management
- » data management/protection and data privacy
- » information protection and regulatory governance

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- » external audit partners to validate adherence to regulatory and industry standards
  - » ongoing enhancements to data center environments including platform and application optimization, network infrastructure, compliance and security layers

## Oracle Insurance Industry Solutions Now Available in the Cloud

Oracle Insurance core systems help insurers to manage and accelerate the complete insurance lifecycle, from policy issuance and administration to billing and claims. Oracle is constantly revitalizing its insurance portfolio to equip its customers with the most powerful solutions. Now that cloud computing has become the essential foundation of digital transformation, Oracle has made its core insurance solutions available in the cloud.

Here is a quick overview of Oracle Insurance's latest SaaS offerings currently available in Oracle data centers:

### Claims administration

- » Automate claim benefit adjudication with adaptive, rules-driven architecture
- » Keep track of benefits and calculations that lead to the final adjudication result for complete visibility and traceability
- » Streamline authorization, referral, and utilization management processes
- » Automate claims pricing, manage healthcare provider data
- » Configure new contracts quickly by accessing a repository of reusable provider contract templates

### Policy administration

- » Maintain high member volumes with configuration rules designed to deal with changes
- » Use a data model designed to support individual and group insurance
- » Maintain cafeteria style benefit plans
- » Manage compensation plans for internal sales agents and external brokers
- » Automate commission payments

### Analytics

- » Get insights in operational processes
- » Identify bottlenecks in operator performance
- » Determine peak periods
- » Measure performance against KPIs

### Value-based payments

- » Support innovative value-based models
- » Design payment models to meet specific goals
- » Automate calculations with an engine
- » Access templates and reusable components

### Policy production

- » Issue, endorse, and renew policies
- » Deliver policies
- » Archive policy documents

### Bancassurance

- » Manage the entire bancassurance lifecycle on a single platform from selling the product to customer support to back-end processes
- » Access up-to-date product information from multiple insurers
- » Connect banks and insurance carriers through the Oracle Insurance Data Exchange (OIDX)



## Conclusion

Cloud computing is no longer an experiment in the business world. SaaS has proven to be a critical foundation of IT in the modern era, and the insurance industry is finally catching the momentum. Insurance CIOs and IT leaders, once reluctant, now see the tremendous potential that comes with cloud services. The many benefits such as cost savings, greater scalability and higher productivity all contribute to the most important impact for insurance: business agility. An insurer's ability to deploy new products quickly, expand into new markets, provide consistent service, and manage business more effectively will define its future.



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**Integrated Cloud Applications & Platform Services**

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