IDC opinion: AIA's experience shows how one's cloud-first ambition can be accelerated by greater public cloud adoption, a lesson for any business considering the move of all or most of its infrastructure to a cloud-computing platform. This includes the 40% of Asia-Pacific financial institutions that classify themselves as cloud-first.

Automation Helps AIA Get a Head Start in Being Cloud-First

February 2022

Written by: Michael Araneta, Associate Vice President, IDC Financial Insights

AIA's Cloud-First Programme was established in January 2020 as the delivery vehicle for the AIA Group's technology strategy, the central pillar of AIA's strategy which was itself developed to propel the insurance giant's second century of operations.

Senior management quickly noted how closely linked cloud was to the organization's success. The cloud would underpin AIA's pursuit of creating "compelling propositions", offering "unrivalled distribution" and "leading customer experience".

Marcel Malan, AIA Group Head of IT Operations, said, "The Cloud-First Programme is central to realizing AIA's aspirations."

Indeed, AIA had to muster the entire organization to move, and fast, towards the same vision. This meant that all business units across the Asia-Pacific region – AIA's wholly-owned subsidiaries, joint ventures and branches in 18 markets, including AIA's Group Office – had to align with what Marcel called, a "cloud-first mentality."

"All business units were asked to plan to migrate all open systems workloads to public cloud infrastructure within 24 months with stated migration targets," Marcel recalled.

With more workloads shifting to cloud, AIA had to ensure automation in the provisioning, deployment, and management of resources across the cloud-first infrastructure. Discipline was key to the roll-out of the cloud throughout the enterprise.

Notably, AIA set – and met – aggressive goals. Starting from a low base of under 10% of computing in public clouds, AIA aimed to accelerate its cloud adoption and to migrate 35% of

SOLUTION SNAPSHOT

ORGANIZATION:

AIA Group, known as AIA, is the largest independent publicly listed pan-Asian life insurance group. It has a presence in 18 markets across Asia-Pacific.

ORGANIZATIONAL CHALLENGES:

» Diverse portfolio of infrastructure and applications across multiple business units.
» Reliance on on-premises data centers.
» Transitioning to groupwide cloud adoption.

SOLUTION:

» Cloud-first program undertaken groupwide but managed by AIA's P3O team.
» Use of Red Hat Ansible and automation tools for growing cloud workloads.

PROJECT DURATION:

» AIA's Cloud-First Program was rolled out at the height of the pandemic in 2020, with a goal of 90% of workloads in the public cloud by 2022.

BUSINESS BENEFITS:

» Exceeded target of migrating 35% of workloads in the first year.
» Over 4,000 cloud-compute workloads across three public clouds in the first year.
» Efficiencies accrued from on-premises datacenter hosting, maintenance, and other service charges.

workloads by December 2020, and increase that to 70% by December 2021, and finally, to 90% by end 2022.

AIA's Cloud-First Initiative

The intended outcomes are what AIA has described as "foundational in nature". The effort was meant to consolidate commonly-used applications groupwide. These foundational applications were envisioned to be on multiple public clouds. AIA intended that as this consolidation and standardization progressed, it would be able to reduce the overall on-premises infrastructure and application footprint. This also meant that AIA could take advantage of "modernized, flexible and stable architecture that delivers scale and efficiency across AIA" aside from "infrastructure provision agility and development", said Marcel.

AIA was also pursuing a "no end-of-life technology across the estate" which meant that across the entire AIA application stack groupwide, everything was new and truly modern, and risks associated with the dependency on end-of-life technologies are reduced. The focus was to have stable and supported technologies, bringing this no-end-of-life principle to the entire application portfolio, not necessarily just to new applications. Clearly, this would also bring security benefits as well as overall technology and information security risk reductions. In other words, the application functionality was truly befitting of the digital world of insurance.

Consolidation, Narrowing Down, Standardization

Even at a cursory glance, the path to a more consolidated AIA technology strategy was difficult to achieve. First, different operations in different countries would find it difficult to identify use cases that can optimally fit with continually evolving cloud services. They also had to maintain the balance between keeping the complexity low and meeting varying business demands across 18 business units. A case in point: Microsoft Azure, Alibaba Financial Cloud, and Amazon Web Services (AWS) were all public clouds of choice, depending on the markets that AIA operates in. These different markets also had different use cases and models for the use of public cloud services to leverage common services, particularly those concerning data, analytics, and artificial intelligence. AIA had to pursue significant standardization from the get-go.

AIA, however, was very clear about ensuring adherence to the prevailing information security, architecture, design, and operations standards across its group operations.

On the goal of standardization, Vikas Bhandari, Director of Engineering and Delivery (Cloud & Infrastructure), Group Technology Services, noted, "We have standardized on infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS) that can be consumed. What we've done is narrow down variability across the group. If you're looking for, say, XYZ capability, there would only be one or two tools, or one or two technologies available, with very few exceptions."

He added, "In the past, people could get an exception fairly easily as long as they had the money, and as long as they could buy the software, they could get an exception. But now we're very strict with exceptions, so that's definitely driving a lot more standardization. We do want people to consume as much of PaaS or SaaS services as possible."

PaaS services that are now used extensively include app services and various databases, including various open source databases. SaaS services are also wide-ranging, including collaboration tools, HR applications, chatbots, artificial intelligence/machine learning (AI/ML), and cognitive services.

The ability to successfully leverage cloud platforms and capabilities in the development, operations, and delivery of applications hosted in the cloud depends chiefly on automation.

Vikas commented, "Red Hat Ansible is a key component of our infrastructure provisioning automation pipeline and ensures that all provisioned infrastructure is compliant with security standards, has all of the security agents deployed and ready prior to use by application teams. Automation has significantly reduced the time taken for the compliance process."

It was clear that as AIA accelerated into cloud, it followed several principles. Among them was having one integrated team overseeing cloud strategy across the region, leveraging service providers, and adopting standardization, flexibility, and automation from the start. It also helped that the group developed cloud-focused technology architecture as well as functional or technology portfolio management capabilities from the ground up in 17 months from April 2019.

Its key achievements were the delivery of refreshed cloud, infrastructure, network, telecommunications, and unified communications strategies, and an assessment of over 100 cloud services and associated use cases.

> "Red Hat Ansible... ensures that all provisioned infrastructure is compliant with security standards... Automation has significantly reduced the time taken for the compliance process."
>
> **Vikas Bhandari**
> **Director of Engineering and Delivery (Cloud & Infrastructure), AIA**

Benefits to the Group

In the first year alone, AIA has achieved over 100 IaaS, PaaS and SaaS services for an even larger number of corresponding use cases that cross-functional teams assessed, reviewed and approved. Accompanying architecture and design patterns were also developed.

Vikas said, "AIA's Cloud-First Programme succeeded in expanding the group's cloud landscape from a modest footprint of under 800 workloads to more than 4,000 business workloads deployed across three public clouds within 12 months, comprising modernized applications, migrations, and organic business growth."

The benefits of standardization were manifold, including being a major de-risking measure for an on-premises hosted regional datacenter model. AIA also identified cost-efficiency metrics. These include cost reductions accrued from on-premises datacenter hosting, maintenance, and other service charges.

AIA was able to benefit from the automation. Marcel remarked in a recent forum, "Automation has also been a key success to drive cloud leverage across the infrastructure stack." Red Hat Ansible was a key component of this, he continued.

Vikas also noted some other benefits, listing them as "efficiencies on cloud expenditure accrued through the flexibility to scale resource consumption, as well as the economies of scale and reduction in cloud consumption costs through standardization, driven by discounts for significant utilization of a smaller set of services by AIA's cloud service providers".

There has also been the additional benefit of getting internal skills improved. "Organizational know-how on cloud technologies and innovations were at a significantly low level when AIA's cloud-first journey was initiated," Vikas noted, adding that none of AIA's business units had planned for large-scale migration or

application modernization initiatives. This meant that the AIA Cloud-First Programme and project teams in all business units have had to significantly upskill in parallel whilst executing agreed plans.

AIA's Group Programme Management Team worked with the business units to plan, prioritize, and secure business case approvals from their respective executive committees to migrate and modernize at scale.

The magnitude of upskilling can be assessed through the impressive numbers: Over 600 employees spent over 25,000 hours in training, and over 1,100 certifications were earned for a broad portfolio of contemporary skillset spread across the cloud, the architecture, information security, cloud operations, and data science, among others. These were all done despite the COVID-19 scenarios faced by AIA in different markets.

The Programme was supported by a lean governance layer from AIA's Group Office, comprising teams from architecture and governance, information security, cloud and infrastructure operations, and cloud engineering and delivery. A skeleton Programme Management Office was put in place to coordinate efforts and reporting to provide Programme visibility to groupwide stakeholders.

Formal governance for the Programme was through AIA's Cloud-First Steering Committee (CFSC) sponsored by AIA's group chief technology officer. In addition to its role as the formal Programme change governance and control body and an escalation and decision forum for critical Programme dependencies, risks and issues, the Steering Committee provided strategic direction and decision making. What has proven invaluable, particularly for AIA's smaller business units, is that the forum provides a useful platform for sharing experience and best practices amongst business units. Learning from experience, in other words.

Against this backdrop of technology standardization and modernization, AIA maintained system availability of 99.7% (an impressive accomplishment that could serve as a guide for cloud-first aspirants). To this, Marcel explained how its cloud-first vision did not sacrifice stability, adding that "it should be executed at pace alongside other organizational transformation work streams."

Critical to the Programme's success are the relationships established and nurtured by the IT Management Office with AIA's strategic partners. A select few have been listed in the next section. From the rigor in ensuring each contractual relationship is set up to deliver the desired outcomes, to operationalizing agreed governance, through to continual engagements at multiple touchpoints to drive up value delivery, the IT Management Office has excelled by leveraging mutually beneficial internal and external relationships.

The successful establishment of these organizational capabilities has been critical in enabling the innovative use of multiple public clouds and cloud offerings to build groupwide platforms that business units – and, those relatively smaller in size – can leverage at pace. This significantly reduces time-to-market and helps achieve important business goals.

> "Getting a project off the ground is always the most difficult step, particularly in the midst of a global pandemic and lockdowns, and I am extremely proud that we have achieved our ambitious 35% target in the first year."
>
> **Marcel Mario Malan,**
> **AIA Group Head of IT Operations**

Marcel concluded, "From the outset of the Programme, the team (including business units' CTOs) were given an aspirational target to achieve cloud adoption of 90% within 30 months. Looking back at the first 12, our people have demonstrated unwavering focus and tremendous will, determination, and teamwork to deliver the key technology levers to enable AIA's Group Strategy. Getting a project off the ground is always the most difficult step, particularly in the midst of a global pandemic and lockdowns, and I am extremely proud that we have achieved our ambitious 35% target (of compute-on-cloud) in the first year."

In 2022, AIA is on track to achieve 90% of workloads intended for public cloud, with all the benefits magnified deservingly for getting a head start on being cloud-first.

Methodology

The project and company information contained in this document were obtained from multiple sources, including information supplied by Red Hat, questions posed by IDC directly to AIA, and IDC Financial Insights research.

About the Analyst

Michael Araneta, *Associate Vice President, IDC Financial Insights, IDC Asia/Pacific*

Michael Araneta leads the research and consulting work for Asia/Pacific Financial Services, covering the broad range of strategic and tactical issues that Asia/Pacific institutions face as they complete their Digital Transformation programs. Mr. Araneta is the go-to analyst for advice on the technology investments that need to be made for product innovation, Big Data, customer analytics, core banking systems, risk management, and customer channel effectiveness. His research agenda has also focused on the rise of fintech opportunities in the Asia/Pacific region.

IDC Custom Solutions

This publication was produced by IDC Custom Solutions. The opinion, analysis, and research results presented herein are drawn from more detailed research and analysis independently conducted and published by IDC, unless specific vendor sponsorship is noted. IDC Custom Solutions makes IDC content available in a wide range of formats for distribution by various companies. A license to distribute IDC content does not imply endorsement of or opinion about the licensee.

External Publication of IDC Information and Data — Any IDC information that is to be used in advertising, press releases, or promotional materials requires prior written approval from the appropriate IDC Vice President or Country Manager. A draft of the proposed document should accompany any such request. IDC reserves the right to deny approval of external usage for any reason.