

HYBRID CLOUD DELIVERS PLATFORM FOR GLOBAL EXPANSION AT INSURETECH WORLD NOMADS GROUP

World Nomads Group successfully adopts new cloud services, while integrating with existing on-premises system

- **Customer insurance transactions reduced to sub-second response times directly improving sales conversion rates**
- **Core on-premises application being transformed using cloud-based microservices creating an enterprise hybrid architecture**
- **Standardisation improves security posture and operational resiliency**
- **DevSecOps practices deliver faster time to market without compromising application security**

Servicing travellers across 134 countries is all in a day's work at Australian travel insurance company World Nomads Group. Since beginning nearly two decades ago, World Nomads Group has been technology-driven and offers a range of travel solutions, including content, advice on travel safety, and emergency assistance. With more than a million customer engagements a year, and some \$150 million in revenue, the InsureTech eyed cloud to meet its global growth ambitions.

The challenging reality of hybrid cloud

The term "hybrid cloud" is used liberally within the IT industry, but at World Nomads Group it is a core part of the company's architecture.

Mark Dasco, Head of Software Applications and Development, says the company originally developed fit-for-purpose applications before consolidating on a new insurance platform, dubbed "Kosmos".

With Kosmos originally developed in-house, work began to split out the monolithic platform into a microservices architecture.

Dasco says with hybrid it is vital "everything works end-to-end" and managing the impact of changes on any system – cloud or on-premises – is crucial.

Data integration, security and ensuring business processes continue to operate with resiliency are key to hybrid cloud success.

World Nomads Group at a glance

- **World Nomads Group**, part of NIB Holdings Limited [ASX: NHF]
- **Industry:** Insurance
- **Size:** \$150M+
- **Headquarters:** Sydney

HYBRID CLOUD AT WORLD NOMADS GROUP



More than a million travellers serviced every year



Moving to cloud to meet international growth



Partnering with CMD Solutions for automation and integration

"We had to make our code base work across on-premises and cloud and that was certainly a challenge," he says. "New cloud services needed to be integrated back to Kosmos so our downstream claims and data reporting systems would continue to operate."

Hybrid also poses unique security challenges. Dasco says cloud manages the security part of the framework well; however, when cloud interacts with on-premises there are integration requirements.

Hybrid cloud also demands strict data routing and security considerations. Financial services firms often have compliance requirements specific to the country in which they operate.

CMD Solutions co-founder and director, Adam Durbin, says World Nomads Group is at the forefront of hybrid cloud management.

To improve success, Dasco recommends being patient with a hybrid architecture as "you won't realise the benefits until you have a big chunk of infrastructure in the cloud".

"We have a long program of work to pull out more microservices and migrate them to cloud," he says. "We can see a two- to three-year timeframe where we are off our on-premises infrastructure."

Furthermore, the move from traditional application development models to a DevOps approach with CMD Solutions and AWS had an immediate impact on the group's ability to expand its services portfolio.



Bringing Australian insurance technology to the global market



Hybrid cloud: Modernise without a wholesale migration



Infrastructure-as-code to deploy applications with the right resources

Working towards the infrastructure-as-code paradigm

The World Nomads Group journey to cloud essentially consisted of three phases. Firstly, the on-premises quote and sales system was isolated and followed by an AWS pilot project, the company's first foray into cloud computing.

Then, the quotes API, AngularJS purchasing app and related components were migrated to the cloud.

Following a six-month project World Nomads Group went live on AWS.

"CMD Solutions has been instrumental in the migration and provided us with cloud specialists for a significant period of time," Dasco says. "There was a complex set of changes to get to the level of infrastructure-as-code."

CMD Solutions co-founder and director Andre Morgan, says infrastructure-as-code is an exciting area which is enabling a new level of automation for an entire application stack.

"With infrastructure-as-code you can define all the resources and templates an application needs and have the utilities, like compute and storage, provisioned automatically," Morgan says.

World Nomads Group can now benefit from the efficiency of a "serverless" architecture and microservices can be deployed rapidly in response to changing demands.

The third phase was to go multi-region across the globe to facilitate international expansion ambitions. Quote and sales features needed to work locally in many global jurisdictions so the team deployed a copy of the components developed in Australia to the Ireland region of AWS.

"CMD is a genuine tech-led cloud shop. They let their abilities with cloud speak for themselves, rather than with marketing hype"

Mark Dasco, Head of Software Applications and Development, World Nomads Group

"This was one of the key drivers for cloud. It wasn't viable for us to find data centre or hardware partners in different geographies. AWS is already multiregional," Dasco says.

"We really like working with CMD Solutions, they are very flexible on resourcing, and able to ramp up quickly when needed. We get quality architectural advice and they specialise in a specific problem space and do it extremely well."

Cutting the cost of poor performance

World Nomads Group is beginning to realise the business benefits of more uptime and better application performance. The team has moved from monolithic changes to rapid microservice deployments using blue-green deployment methods which has lowered the downtime risk.

"As we built up more functionality, making a change on the monolithic platform was difficult and regression testing resulted in burnt energy," Dasco says. "On the Kosmos platform, we do fortnightly releases, but each release takes time and it can involve downtime if the schema changes. Microservices, however, are granular and don't have the same downtime risk. We can release as soon as a feature is complete and tested."

Online transactions are down from between two and eight seconds to sub-second response times, which is important for the company's conversion rate, one of the largest benefits of moving to cloud.

World Nomads Group can now quantify lost sales due to deployment downtime and savings around maintaining on premises hardware, systems operations and security patching.



World Nomads Group cloud adoption reduces downtime and increases conversion rates

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