# PayMaya replatforms core services and automates its operations hands-free in just 100 days

With Dynatrace full-stack AI monitoring and AWS, PayMaya can now scale confidently and foster innovation rapidly.

## PayMaya

**Industry**

Fintech

**What they needed to do**

To build a Fintech product in a 100-day time period with lean resources and an approach that did not involve major refactoring.

**How they did it**

PayMaya built its new prepaid online payment app, on Amazon Web Services (AWS) and deployed Dynatrace Digital Performance Monitoring (DPM) to help with identifying operational bottlenecks and discovering areas that can be optimised

**How they performed**

- Optimised performance of core applications to less than 1 second response time

- Reduced manual discovery down from 1 day to minutes

- Minimised application downtime by identifying root cause and releasing a patch in less than 1 hour

- Saved approximately 90 days on operational overheads for infrastructure management

## Moving to a hybrid cloud architecture utilizing AWS and on-premises environments

The future is cashless, and it's being driven by about eight out of ten Millennials, who are participating mostly in online transactions[1]. To promote financial inclusion, PayMaya learned from past issues with implementing applications completely on-premises and decided to leverage the cloud when building its new payment app. This enabled them to offer the uncarded population digital services that allow for online payments without a credit card, and participate in the new digital economy.

## Challenge

PayMaya engineers were tasked to speed up the time-to-market for their mobile app and build it in an aggressive 100-day timeline. Under the pressure to deliver, the engineers knew that the additional infrastructure overhead would incur more overhead cost and may take more time to deploy. As such, continuing to build on-premises would slow down PayMaya's efforts.

Thus, the need to take their innovative solutions to scale prompted PayMaya to make the move forward and build the app in hybrid cloud, as Bangko Sentral ng Pilipinas (Central Bank of the Philippines) still required for PayMaya's Core Systems to be on-premises.

## Solution

With such a tight schedule to keep to, PayMaya engineers recognized that the project can be successfully carried out on Amazon Web Service (AWS). This decision saved them approximately 90 days — the same amount of time spent on infrastructure management such as the procurement and configuration of physical servers, if they had stayed on-premises.

PayMaya engineers designed and deployed using AWS services including Amazon Elastic Compute Cloud (Amazon EC2), Elastic Load Balancing (ELB), Amazon Relational Database Service (Amazon RDS) and Amazon Simple Queue Service (SQS).

Building on a microservices architectural framework, instead of a monolith as previously done, enabled the engineers to shift away from code-heavy applicationsto stand-alone, independent ones—and also reuse some core libraries and services from their earlier projects.

Additionally, this allowed PayMaya to work in parallel and use their preferred programming language and frameworks like Java and node.js—all of which promoted efficiency within the team and contributed to the successful launch of the app within the 100-day timeline.

## How Dynatrace played a part

According to the 2018 Global CIO report[2], IT teams spend about 29% of their time dealing with digital performance problems — a major drain on the need for and speed of innovation for tech organisations.

In proactively monitoring and managing the performance of the PayMaya system, the team turned to Dynatrace Digital Performance Monitoring (DPM) tools. The AI capabilities offered by Dynatrace enabled them to auto-detect anomalies across all layers and identify downtime culprits — reducing their manual discovery from 1 day to mere minutes and they were able to release a patch in less than an hour.

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The ease of installing Dynatrace OneAgent allowed us to instantly get a detailed picture of our microservices, down to the granular, from a single pane of glass.

This helped us identify and fix performance bottlenecks that existed within our non-production environments. With these insights, we can now be reassured that our systems are fully-optimised to meet KPIs and user needs — which would not have been possible previously."

— Alvin Delagon
Senior Manager, Core Engineering

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Thanks to Dynatrace and AWS, our journey in leveraging hybrid cloud has been smooth, seamless and easy. They have made it possible for us to focus on what matters the most: innovation — helping us to continue our mission of bringing digital transformation to emerging markets.

With the elasticity of the cloud and the continuous real-time monitoring capabilities from Dynatrace, I'm confident of scaling the PayMaya app to fit the requirements of regional users in the future, and hopefully, this is a driving force that pushes our vision of going global forward.

— Alvin Delagon

## Moving forward

Pairing the AI-powered capabilities of Dynatrace such as auto-configuration and auto-discovery, with the inherent flexibility of AWS, enabled PayMaya to easily foster rapid experimentation, become more agile and automatically scale as needed

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Successfully improve your user experiences, launch new initiatives with confidence, reduce operational complexity and go to market faster than your competition. With the world's most complete, powerful and flexible digital performance platform for today's digital enterprises, Dynatrace has you covered.

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[1] Nasdaq, Digital Wallets: The Reason Millennials are Going Cashless, 2017

[2] Dynatrace, The 2018 Global CIO Report: Top Challenges Facing CIOs in a Cloud-Native World, 2018

## Learn more at dynatrace.com/aws

Dynatrace has redefined how you monitor today's digital ecosystems. AI-powered, full stack and completely automated, it's the only solution that provides answers, not just data, based on deep insight into every user, every transaction, across every application. The world's leading brands, including, 72 of the Fortune 100, trust Dynatrace to optimize customer experiences, innovate faster and modernize IT operations with absolute confidence.

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