



Alyssa Global is a cloud native healthcare provider operating and management platform that streamlines the end-to-end operations of a healthcare provider, from registration to payment and admission to discharge, including supply chain management.

### Industry

Technology

#### **Partner**

VMware Cloud Verified Partner, Cloud HM, offers infrastructure as a service, backup as a service and disaster recovery as a service.

#### VMware footprint

- VMware® Tanzu® for Kubernetes Operations
- Cloud HM Services built on VMware Cloud® technologies
- Cloud HM Sovereign Cloud

## Alyssa Global Simplifies Healthcare Operations in a VMware Cloud

Alyssa is a cloud native healthcare provider operating and management platform that aims to help healthcare providers streamline operations. The business needed a stable cloud infrastructure and the ability to run Kubernetes to accelerate new feature development and deployment. By moving Alyssa to the Cloud HM Sovereign Cloud, built on best-in-class VMware Cloud technologies, operating costs went down, and performance shot up, enabling the team to design a feature-rich platform trusted by healthcare providers.

### Making it easy and affordable to streamline operations

Healthcare facilities in Thailand are among the best in the world. But the operational systems of healthcare providers tend to be behind the technology curve.

During the COVID-19 pandemic, when positive patients were quarantined in hotels, medical staff could not access their hospital systems remotely to update patient status. Instead, they had to fill in physical forms, which were transported in big binders to the hospitals for manual data entry.

"We want to help healthcare providers streamline their operations end-to-end so that they can focus on giving patients the best care possible instead of struggling with outdated software or paper-based processes," says Dr. Nolnabhas Yaemsaard, CEO and co-founder, Alyssa Global.

"Together with Cloud HM and VMware, we want to empower every hospital and clinic, whether big or small, to put patients where they belong, right at the center of their care."

 $\hbox{Dr. NoInabhas Yaemsaard, CEO and Co-Founder, Alyssa Global}\\$ 





## Cloud service supports constant innovation

As a cloud native platform, having a stable and resilient cloud infrastructure is crucial for Alyssa to survive as a leader in this market.

During the early stages of development, the Alyssa platform was hosted on a hyperscale cloud infrastructure. However, because the platform would deal with sensitive patient data, the team moved it to a local cloud provider in Thailand to meet data residency and privacy requirements. But the team wanted more from the services provided and started looking for another local cloud provider.

Alyssa had two critical criteria. First, the cloud infrastructure must be highly stable and available because hospital operations are 24-7, and the Alyssa platform cannot afford downtime. Second, the team planned to release new features regularly, so it needed a cloud service provider to support continuous integration and delivery (CI/CD).

"Health and information management systems in Thailand tend to be sold on a license model. But the unique selling point of Alyssa is that it's a Software as a Service (SaaS). There is no high upfront cost for healthcare providers, so even the smallest clinic can afford our solution," says Dr. Nolnabhas.

"We have a set roadmap where we release a new feature every quarter, which will be available at no extra cost. That's why we need a cloud partner who can join us in our goal to drive the value up and the costs down for healthcare providers."

### A win-win collaboration

After careful consideration, the Alyssa team selected Cloud HM, a VMware Cloud Verified Partner. It started by moving the test environment to the Cloud HM Sovereign Cloud, built on best-in-class VMware cloud technologies. The team at Cloud HM proved to be so supportive that the Alyssa team became confident to move the remaining development and production environments to Cloud HM.

"We're creating a cloud native platform for the healthcare industry. This is a first in Thailand," says Yakin Patel, CTO and co-founder, Alyssa Global. "When we started working with Cloud HM and VMware, whenever we needed support on some issues, both teams were ready to step up and work together, resolve the issues and move forward. This is a highly collaborative effort, which creates a win-win situation for each party."

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Cloud HM also provides the Alyssa team with VMware Tanzu for Kubernetes Operations—a group of SaaS VMware Tanzu services that provide Kubernetes lifecycle management, observability, and other features—enabling the utilization of Kubernetes multi-clusters to speed up the development of new capabilities. The Cloud HM team provides consultancy services in the design of Kubernetes for Alyssa, which included leveraging Thanos, Prometheus, and Grafana Loki for multi-cluster monitoring, using GitHub securely as a public container registry, as well as giving recommendations on deployment settings such as replica set and stateful set based on Kubernetes best practices.

"Our main goal is to enable Alyssa to operate with stability and reliability and to expand its user base without any downtime easily," says Na-pajra Umpudh, CEO, Cloud HM.





# Revamping operations at a large and established hospital

The Alyssa platform is already transforming operations at patRangsit Hospital, a private hospital in Bangkok that serves almost 700,000 patients a year. Currently, more than 500 doctors are using the system, and many have praised it for its ease of use.

"Our previous system was quite slow and difficult to use, but Alyssa has a very modern interface that is intuitive and smooth. I can even make drawings of a patient's problem areas on the platform," says Dr. Teeranun Mitrpanont, medical director, patRangsit Hospital.

The hospital managed to reduce costs and increase productivity by moving to Alyssa from its on-premises system. Doctors can now access patient information such as laboratory results, prescriptions, and progress notes from anywhere and on any device, enabling them to check on their patients remotely.

Moreover, those in hospital management can easily access crucial data on hospital operations, including patient history and drug inventory, through easy-to-understand dashboards. This allows hospital administrators to make quicker business decisions in real time.

"Alyssa is our trusted technology partner, which has brought the best innovation to us," says Dr. Teeranun. "It has made such an impact on how the hospital operates."

# Becoming the trusted partner for healthcare providers

The team saw immediate benefits on two fronts by migrating the Alyssa platform to the Cloud HM cloud infrastructure. First, operating costs dropped by 20 percent. This allowed them to assign more resources to develop new features.

Second, the provisioning improved so much that end users reported a dramatic increase in the platform's performance.

"The end users told us that it was much faster and more stable," says Patel. "This is very important to us, as a positive user experience will give them more confidence in moving to a new platform."

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Moreover, with Cloud HM taking care of the provisioning, operating and monitoring of the Kubernetes multi-clusters, it frees the Alyssa team up for more strategic work, such as interfacing with end users to understand their pain points and to develop new features to solve their challenges.

"The healthcare industry is built on trust, like how patients trust doctors with their life. Hospitals and clinics trust us to provide a platform that works well all the time. We, in turn, entrust Alyssa to our partners, Cloud HM and VMware, for stability, agility and efficiency," says Dr. Nolnabhas. "Together with Cloud HM and VMware, we want to empower every hospital and clinic, whether big or small, to put patients where they belong, right at the center of their care."

### Expanding into the region with confidence

Having achieved significant success at patRangsit Hospital, the Alyssa team is now looking to roll out the platform to other healthcare providers in Thailand and the region, even as they continue to add new features.

"Today, we have over 500 doctors on Alyssa, and if it gets to 2,000 or 3,000 tomorrow, we know that with VMware Tanzu for Kubernetes Operations, we'll be able to scale without any hiccups," says Dr. Nolnabhas.

