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How One Mount Group Grew Vietnam's Largest Tech Ecosystem on Confluent



Headquarters
Hanoi, Vietnam

Industry
Technology

Challenge
One Mount had been using legacy technology but needed a more flexible and robust data architecture to support its three ambitious products.

Solution
Confluent Platform, Kafka Connect, and Schema Registry for a multi-region messaging system that can seamlessly handle data streaming and support all the digital products the company has founded.

Results

- 50% reduction in data streaming system integration workload
- Reduced complexity and increased operational efficiency
- Faster time to market
- Reduced overhead and TCO due to reduction in use of internal resources

One Mount Group was established with the ambition of creating Vietnam's largest technological ecosystem, providing solutions and services along the entire value chain in the financial services, distribution, retail, and real estate sectors. Their three major products serve a spectrum of stakeholders from individuals to small business owners to major corporate partners.

VinID is Vietnam's top customer loyalty engagement platform including e-wallet and payment solutions, serving end-to-end daily needs of Vietnamese people.

VinShop is a mobile application that serves as the trusted partner for FMCG suppliers and retailers, with a full suite of solutions through an open digital ecosystem and a direct-to-consumer model.

OneHousing is Vietnam's most trusted and comprehensive real estate ecosystem and a one-stop shop for every housing need including buying, selling, and investing.

The challenge: Managing a ton of streaming data

Each of these products were originally built on legacy technology platforms, but One Mount Group needed a more scalable, flexible, robust, and real-time data architecture. The decision was made to build out a microservices-based model to support all three products. For this, they needed a multi-region messaging system that could easily handle data streaming. They were already using Apache Kafka®, RabbitMQ, and Google Pub/Sub, but required a more flexible architecture built for real-time data streaming to provide the foundation.

They especially needed to consider the lack of internal resources available to develop and manage their change data capture (CDC) processes.

There were other backend technology pressures, too. For one, any data tool needed to seamlessly comply with Vietnamese government data privacy regulation, with accurate, real-time data. With data coming from all types of businesses, including personal and financial customer information, data needed to be encrypted end to end to ensure data governance.

And ultimately, with an increasingly complex ecosystem, with structured and unstructured data sources such as Oracle, Cloud SQL, and MongoDB, the data streaming platform needed to be scalable and resilient, to allow for any future growth.

These were the key considerations that led One Mount Group to Confluent. "We moved to Confluent Platform because we needed a platform that was stable and could scale easily, and it has security features that we couldn't find from other platforms. The technical support from Confluent was also very important to us," said Trần Thế Chinh, head of system platform at One Mount.

Technical solution: Flexibility without sacrificing scalability

Having made the decision to make the move to Confluent Platform, One Mount Group started with several use cases:

The payment gateway system

The first use case with Confluent was the pub/sub system, which One Mount Group used to build a payment gateway system with near-real time transaction processing that leverages Confluent Platform to help deliver the payment transactions from the customer to their backend.

Data streaming

The second use case with Confluent was CDC data streaming. One Mount Group uses various database management systems, including MySQL and PostgreSQL, plus other systems such as SAP and Salesforce. With Confluent, One Mount can enable CDC to stream data changes from all systems to their data lakes and warehouses, letting them take advantage of valuable legacy data from those databases. They also use Kafka Connect and Schema Registry for this.

One Mount self-manages Confluent Platform on Google Cloud, including services implementation, for greater flexibility and customization. In addition, they developed their own Terraform provider to fit their system integration requirements.

Business benefits

With Confluent, Kafka Connect, and Schema Registry, One Mount was able to rapidly launch the new microservices-based platform and quickly reduce IT overhead, time to market, and streaming integration workloads.

Reduced workload

"We decreased our data streaming system integration workloads by 50% using Kafka Connect and Schema Registry," said Trần Thế Chinh.

Reduced overhead and TCO

"The most difficult thing was we didn't have enough internal resources to develop CDC and the streaming process. Now, we can easily build CDC systems based on Kafka Connect and Schema Registry and don't need to depend on any vendors. With Confluent Platform, the developer team was able to decrease their workload while developing the streaming process."

Faster time to market with reduced admin management

"We now have a much faster time to market, and we're generally faster at everything, including production release time. We've increased our operational efficiency and reduced the complexity of our streaming architecture."

A more resilient, stable, secure platform

"The ultimate reason we moved to Confluent Platform is because we needed a platform that could be stable, would scale easily, and would have certain security features."

Support when needed

"A big difference between Confluent and open source Kafka, is that we have someone to support us in case something goes wrong in our setup. We can go to Confluent and ask for support. This is very important for a big and important system."

Looking forward

Confluent doesn't just provide the organization with data scalability. It also endows the potential to scale innovation, with a robust platform for data that makes all kinds of data use possible across a combination of sources and via all manner of apps. In the near future, One Mount plans to use ksqlDB to enable KStream and KTable in their services implementation.

In the meantime, the organization continues to support all of Vietnam's citizens and businesses on a strong, secure data platform.

"Confluent has given us a way to seamlessly handle data streaming—something we couldn't achieve in two years of using standalone Kafka and various legacy technologies. This, in turn, has allowed us to incorporate microservices into our IT architecture to support each of our three business functions." — Đinh Việt Hưng, CIO, One Mount Group

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