



## ABA Bank Built Cambodia's Top Free Financial App With the Help of VMware

Founded in 1996, Advanced Bank of Asia is Cambodia's leading private financial institution and one of the top three commercial banks. It is a subsidiary of National Bank of Canada and offers technologically advanced banking services to small and medium enterprises, micro businesses and individuals.

[www.ababank.com/](http://www.ababank.com/)

### Industry

Financial Services

### Strategic priorities

- Multi-Cloud

### Partner

Biplan Global is an IT solutions provider in Cambodia that was started in 2012, with extensive experience in IT and telecom industries, business-process analytics, evaluation and modeling.

<https://www.biplanglobal.com/>

### VMware footprint

- VMware™ vCloud Suite®
- VMware vSphere®

When Advanced Bank of Asia, or ABA Bank, was reinventing itself, it wanted to focus on digital banking innovations to attract new customers. However its strategy of developing a mobile app was thwarted by an inflexible IT infrastructure. By virtualizing the hardware servers with VMware vSphere and VMware vCloud Suite, the bank was able to launch the ABA Mobile app, which enables customers to transfer money and pay bills easily, and has become the most popular free financial app in Cambodia. The bank is now exploring the use of containers with VMware vSphere with Tanzu to further accelerate the development and roll out of new app features.

### Providing quality and convenient financial products to Cambodians

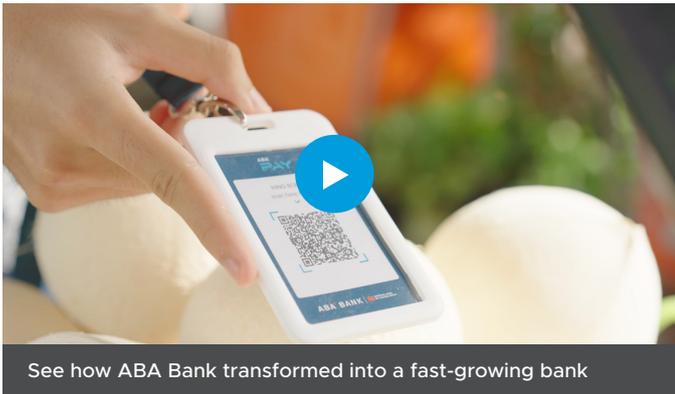
Established in 1996, ABA remained a single-branch bank until 2009 when new management took over and invested significantly in IT and infrastructure. Today, the fast-growing bank is one of the top three commercial banks in Cambodia, with 80 branches, more than 280 self-banking machines, over 470 ATMs across the country, as well as advanced online banking and mobile banking platforms. It aims to help Cambodian businesses and people build a brighter future through quality and convenient financial products. At the end of 2021, the bank has more than USD 7.7 billion in assets while its customer base soared by 53 percent year over year to almost two million accounts.

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“Today, our SLA (service-level agreement) is 99.99 percent and VMware is one of the keys which helped us to reach it. Our customers can access the mobile app any time, which builds up their trust in us.”

Kirill Yuzhakov, Head of IT Infrastructure, ABA Bank

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“With VMware vSphere, we did away with all our physical servers and now we have more than 1,000 virtual machines (VMs), making us the largest VMware customer in Cambodia,” said Yuzhakov. “All our applications and databases are running on the VMs. Without vSphere, we won’t be able to use the most helpful features of VMware.”

The bank also deployed VMware vCloud Suite, an enterprise-grade cloud infrastructure and management solution that combines vSphere and VMware vRealize Suite, which delivers a self-service consumption layer, an automation framework and self-driving Day 2 operations, to increase IT agility and speed while reducing the cost of IT.

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“Previously, we’d require 30 engineers to maintain all the physical servers. With a virtualized infrastructure, we now only need five to manage one of the largest IT infrastructures in the country,”

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Yuzhakov also pointed out that vRealize Suite has enabled the rightsizing of the VMs, which is critical for performance. Rampant oversizing of VMs can cause contention at the host level while undersized VMs can cause contention inside the guest OS.

He explained: “With vRealize Suite, the the allocation of resources to a VM is automatically changed to match its utilization requirements. Rightsizing the VMs helps us to achieve the best performance of our vSphere infrastructure and VMs.”

With a virtualized infrastructure, ABA was able to launch its ABA Mobile app in 2015, the first native app from a bank in Cambodia that is compatible with both iOS and Android smartphones. Customers are able to check their transactions history, open different types of accounts, make local and international transfers, and withdraw cash from an ABA ATM without a card – all from their phones.

## To be digital at the core

When the new management took over, they knew that as a challenger, they had to be creative through innovation and technology. In 2009, it became one of the first local banks to introduce an internet banking platform.

Five years later, with smartphone penetration skyrocketing and fintechs emerging, ABA was convinced that it needed to be digital at its core so that it could continue to remain relevant to their customers. The plan was to have a mobile application, and with the bank deciding between developing the entire app in-house or partnering with fintech service providers.

After extensive market research, ABA settled on building the app themselves and also opening up the platform to work with other companies to contribute to the app. But their inflexible IT infrastructure became an obstacle to the application lifecycle.

“App development requires new resources and new servers constantly,” said Kirill Yuzhakov, head of IT infrastructure, ABA. “When we’re testing out new features, we have to be able to spin up servers quickly and it was difficult to provision all that with our physical IT infrastructure. We needed an agile, scalable infrastructure that can support mission-critical systems as the number of customers and transactions grow.”

## Moving applications to virtual machines

In 2014, most financial institutions still preferred traditional hardware servers but ABA was looking to virtualization to help them be competitive, fast and flexible. After careful analysis, the team selected VMware due to its leadership in virtualization technologies.

Local IT solutions provider Biplan Global was engaged in the implementation of VMware vSphere, and continues to provide maintenance support for ABA’s data center.



## Becoming the most popular financial app in Cambodia

Over the years, ABA's shift to virtualization has continued to pay dividends for both its operations and product portfolio. For the IT team, engineers were freed up for more strategic work in product development.

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Now that the IT team can provision new servers in minutes instead of days, the digital team is able to speed up the development, testing and roll-out of innovative new features such as cardless cash withdrawal, money transfer, or payment for public services.

By offering intuitive and easy-to-use products, the ABA Mobile app is now the top free financial app on the Google Play Store and Apple App Store in Cambodia. And the bank credits the popularity of the app for to the 10-fold growth in individual accounts in the last five years.

Currently, more than 80 percent of all banking transactions can be carried out on the ABA Mobile app; the remaining operations are kept offline due to regulations and specific business processes. Around nine in 10 of ABA customers use the bank's digital banking solutions.

This came to the fore during the Covid-19 pandemic when people were afraid to go out, visit the banks or handle cash during purchases. The app gave them a way to manage their financial needs at their fingertips, leading to app usage hitting record levels, logging 175 million transactions totaling \$87 billion in the first 10 months of 2021.

"We deployed vSphere High Availability on all possible levels, including data center, servers, storage, network and disaster recovery. Today, our SLA (service-level agreement) is 99.99 percent and VMware is one of the keys which helped us to reach it. Our customers can access the mobile app any time, which builds up their trust in us," said Yuzhakov.

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## Towards modernizing apps

Speed has become the competitive advantage for banks that can accelerate digital banking innovation, and ABA is looking into other solutions such as Tanzu Kubernetes Grid to propel it to the next phase of developing new app features even faster. With the sheer volume of small-ticket transactions each day, containers could bring greater efficiency to the application lifecycle. This will enable ABA to support financial inclusion with services that are convenient and secure.