

CASE STUDY

Using Cloud-Based Banking to Improve Financial Access in Remote Areas



Cloud-based technology provides banks with tools to reach residents in remote areas. Photo credit: ADB.
In the Philippines, cloud technology is helping a rural bank reach customers in remote areas more efficiently and at lower operational cost.

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Overview

Cloud-based technology is making it easier for banks to reach poor, remote communities who have limited or no access to financial institutions.

In the Philippines, Cantilan Bank Inc. is using cloud-based core banking technology to bring services to unbanked individuals in hard-to-reach areas. It is the first bank regulated by the Philippine central bank to fully rely on a cloud-based “software as a service” (SaaS) system as its core banking system.

By moving banking applications to the cloud, Cantilan Bank expects to achieve greater operational efficiency and scalability, lower customer costs, and enhance convenience. Its ultimate goal is to expand the bank’s customer base to people who do not have a bank account.

Project snapshot

Dates	<ul style="list-style-type: none">• June 2017: Project start date• June-August 2017: Migration to new cloud system of first three pilot branches• July 2018: ATM integration to the new system completed• September 2018: Complete migration to the cloud of all branches across 12 provinces• January 2019: Cantilan Bank became the first bank in the Philippines to rely on cloud-based SaaS for its core banking system• End 2019: Estimated project completion
Cost	<ul style="list-style-type: none">• \$150,000 : Grant
Institutions and Stakeholders	<p>Financing</p> <ul style="list-style-type: none">• <u>Asian Development Bank</u> <p>Executing agency</p> <ul style="list-style-type: none">• <u>Cantilan Bank</u>• <u>Bangko Sentral ng Pilipinas</u> <p>Others</p> <ul style="list-style-type: none">• <u>Oradian (Software as a Service provider)</u>

Challenges

Cantilan Bank—like many rural banks—has had difficulties encouraging the unbanked to avail of financial services and providing better service to the underserved because of two major challenges:

- Lack of e-efficient technology infrastructure in rural and remote areas.
- Higher costs for rural banks to reach and service clients in far-flung areas.

Cantilan Bank serves areas in Mindanao in the southern Philippines with high poverty incidence and limited access to financial products and services. It is based in Surigao del Sur province in the Caraga region (Region XIII), where 17 of its 24 branches are located.

Caraga has an average family poverty incidence of 30.8%, compared to the national average of 16.5%. Only about 24% of families in the region have bank deposits. It is estimated that seven out of 10 adults keep their savings at home, and borrowers tap informal sources for funds, such as family, relatives, or friends (62%); or informal lenders (10%).

Context

In the Philippines, only three out of 10 people have a bank account. Of the total unbanked, 41% are in Mindanao.

Such low rate of financial inclusion prompted the Philippine government to adopt a National Strategy for Financial Inclusion in 2015 to bring the underserved or marginalized sectors into the financial system through technology and other innovations. The strategy complemented the Philippine central bank's 2013 Circular 808 guiding all banks and its other institutions on IT risk management—opening cloud-based technical solutions for the financial sector.

Better inclusion of the unbanked or underserved part of the population into the formal financial system will reduce vulnerability and risk for the individuals, and likely to have a positive effect on economic development.

Solutions

Cantilan Bank piloted the adoption of cloud-based core banking technology with the support of the Asian Development Bank (ADB) through a \$150,000 grant. It partnered with cloud service provider Oradian to migrate from a hardware-based core banking system to a cloud-based platform to improve its operational efficiency as it targets to service the unbanked.

The project consists of four key stages. Stage 1 started with moving the business process assessments and testing of data capture and migration procedures of three pilot branches into the cloud system. Following some adjustments, migration to the cloud was rolled-out in all the branches—in parallel with the old system as part of the “regulatory sandbox environment” provided by the Philippine central bank.

A regulatory sandbox is important because technological innovations can pose serious regulatory challenges. The sandbox provides frameworks of rules for private companies to try out new technologies, products, or services that would otherwise not be possible under existing regulations. Creating a controlled environment allows governments to encourage innovation while still maintaining oversight over the overall financial system.

With mobile applications linked to the cloud platform, Stage 2 was implemented in three pilot branches. The mobility of its account officers helped them reach the unbanked and underserved in remote areas. Using tablets—with Instafin Field Officer App—account officers can complete transactions in “off-line” mode. The application enables collection of payments, creation of loan accounts, creation of new client accounts, and editing of client profiles. As soon as internet connection is available, all the actions and

updates made in the field are synced into the bank's system.

Stage 3 involved the integration of Cantilan Bank's ATM, remittances and mobile money to the new system. Once all the systems are integrated, Stage 4 would enable the bank's clients to have direct digital access to their finances through their gadgets such as mobile phones. This is a vital tool for a country like the Philippines since even residents in remote areas have mobile phones.

Results

Cantilan Bank's shift to cloud-based banking has allowed the bank to provide better financial access to the people and bring in the unbanked into the formal financial system.

With the new system, Cantilan Bank clients can now use their Cantilan cards in ATMs across the Philippines. Unlike commercial and universal banks, most rural banks are not members of financial networks. By integrating the core banking platform with a network of ATMs, Cantilan's customers now have access to financial services even when they are far from one of Cantilan Bank's branches.

Meanwhile, the Philippine central bank, which provided a "regulatory sandbox environment" to Cantilan Bank updated its regulations and processes for cloud-based banking—without compromising data integrity or security—from its learnings from the project. It plans to further relax its regulations to facilitate timely onboarding of qualified financial institutions. Pending the issuance of a new circular, it has internally instituted streamlined approach in processing cloud applications. It has cut down its documentary requirements, and engaged cloud service providers to receive updates on key data information such as reports on how companies safeguard their customer data. The changes have allowed the central bank to fast-track the processing of cloud applications.

Lessons

The project showed that learning a new technology requires significant commitment, including behavioral change. This implies clarity in internal management and communication procedures, a need for reorganization and adjustment of business processes, and continuous training.

Have a communications escalations plan

A communications escalations plan would help ensure a steadier implementation progress because clarification of procedures and decision-making can be made faster.

Provide time allowance

Building in time allowance for the unknown or unexpected would have led to a more realistic timeline. Cantilan Bank estimated 18 months for the project, but it took 30 months to complete.

Factor in all aspects, no matter how small

A process where areas assumed to pose no or few difficulties should still be scrutinized because this could alert management of possible issues at an earlier stage (e.g. automated teller machine integration and contract adjustment, alignment of accounting procedures with the new system, or internet connectivity.)

Create a bigger team

The longer-than-expected transition process—operating old and new system in parallel for more than a year—resulted in considerably higher workload than foreseen. The team would have benefitted from creating a slightly larger team and appointing “champions” at selected branches or cluster of branches at an earlier stage.

Work as partners

Working with a service provider as a committed and responsive partner, rather than seeing the system change as mere procurement, was essential to the timely adjustments of levels of support.

Provide continuous training

Continuous training would ensure the effective use of the system. However, new communications technologies should be used to reduce costs and save time because the traditional practice of bringing branch level staff to headquarters is costly and time consuming.

Align compliance structures with new business models

Audits and reporting structures are still modeled after on-site systems, and need to be adapted to incorporate cloud solutions.

Provide clearer structure for sandbox approach

The sandbox approach could be made more effective with clearer structure such as when to exit the sandbox. It may be beneficial to remain in the protected environment of the regulatory sandbox for some time after the old system is discontinued to lower commercial and legal risk of noncompliance with regulations still based on old-system architecture.

Resources

Asian Development Bank (ADB). 2019. *Cloud-based Core Banking in the Philippines*. Manila.

ADB. 2018. *Unlocking Innovation for Development: Cloud-Based Banking*. Manila.

L. Schou-Zibell. 2019. *Creating a digital path for the unbanked*. *Asian Development Blog*. 22 October.

L. Schou-Zibell. 2019. *Digital solutions for financial inclusion*. *Asian Development Blog*. 28 March.

ADB. 2017. *Cloud-Based Banking Pilot Project to Improve Financial Inclusion in Philippines*. News release. 26 July.

ADB. *Philippines: Inclusive Finance Development Program (Subprogram 1)*.



Lotte Schou-Zibell

Regional Director, Pacific Liaison and Coordination Office, Asian Development Bank

Prior to her current position, Lotte was Chief of Finance Sector Group of the Sustainable Development and Climate Change Department. She provided technical leadership on inclusive finance, finance sector development, and infrastructure finance; and in developing sector policies, strategies, operational plans, and directional papers. She leads innovative pilot projects using digital technologies. Prior to joining ADB, she was Director for International Economic Policy at the Swedish Ministry of Finance, a financial supervision and regulation expert at the Swedish Financial Supervisory Authority and central bank, and an IMF consultant.

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