



## CASE STUDY

# Bank of China: 2016 Celent Model Bank Award Winner



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FINANCE IS OPEN



# Bank of China provides a range of financial services to customers across the Chinese mainland as well as 41 countries and regions

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## **Bank of China Overview**

- Located in Beijing, China
- Founded in 1912
- Operating in 41 Countries
- 310,000 Employees
- 16.8 trillion RMB
- Operating income: 474 Billion RMB

Bank of China—China's most international and diversified bank—found itself in that very situation with multiple payment systems supporting customers across the Chinese mainland, Hong Kong, Macau and Thailand, as well as for customers in a number of overseas countries.

To overcome these challenges, Bank of China collaborated with Finastra to implement a single global payment system, called the Global Unified Payment Platform. Using Finastra's global payment services hub as the backbone of the solution, Bank of China quickly began realizing the benefits of processing payments through a singular platform for its entire business, worldwide.

By rolling out the unified platform to 40 branches throughout 26 countries within only three years, Bank of China was able to streamline processes, consolidate technology systems, cut costs and enhance customer service. As a result of this implementation the institution has gained significant competitive advantage and is better poised for future growth.

Now recognized as a leader in the international playing field, the bank is receiving accolades, including a 2016 Model Bank award from global financial services research firm Celent. The following case study tells the story of how the bank seized an opportunity to overhaul and improve its payment system globally resulting in numerous business benefits.

## CELENT MODEL BANK 2016

### PART IV: CASE STUDIES IN CORPORATE PAYMENTS AND INFRASTRUCTURE MODERNIZATION

*THIS CASE STUDY CONTAINS MATERIAL EXCERPTED FROM CELENT'S FULL REPORT*

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April 2016

This authorized reprint contains material excerpted from a recent Celent report profiling Model Bank Award winning technology initiatives and was not sponsored by D+H in any way.

For more information on the full report, please contact Celent ([www.celent.com](http://www.celent.com) or [info@celent.com](mailto:info@celent.com)).

## EXECUTIVE SUMMARY

The vision for Celent's Model Bank program, now in its ninth year, was to try to answer an apparently simple set of questions:

### KEY RESEARCH QUESTIONS

<b>1</b> <i>What would it look like for a bank to do everything right with today's technology?</i>	<b>2</b> <i>What are some best practices and measurable business results of technology projects?</i>	<b>3</b> <i>What can other banks learn from these initiatives?</i>
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Celent's approach to answer these questions is to seek examples of best practices in technology usage in different areas of banking. Every year we suggest five to eight categories and invite banks to nominate their technology initiatives. We review all nominations and recognize a number of them — up to four per category — with a Model Bank award.

We received a record number of submissions, well over 100 in fact, and awarded 18 initiatives across seven categories. The competition was intense, but we are confident that each of our chosen initiatives is a worthy winner and deserves an award. The winners represent a diverse group of financial institutions spanning multiple countries and several continents.

Since 2014, Celent has been publishing a series of Model Bank reports, each containing case studies of winning initiatives in a specific category. This year, Celent selected Bank of China as a recipient of a Model Bank award in the category of Corporate Payments and Infrastructure Modernization. The following case study tells the story of how the bank took advantage of an opportunity to overhaul its payment system, globally, and describes a scenario in which the bank achieved its goals and began reaping benefits in an impressive timeframe.

# CASE STUDIES IN CORPORATE PAYMENTS AND INFRASTRUCTURE MODERNIZATION

## BANK OF CHINA: THE GLOBAL UNIFIED PAYMENT PLATFORM

### Overview

Bank of China was formally established in February 1912 and from 1912 to 1949, the Bank served consecutively as the country's central bank, international exchange bank and specialized international trade bank. After 1949, the Bank became responsible for managing China's foreign exchange operations and provided support to the nation's foreign trade development and economic infrastructure by its offering of international trade settlement, overseas fund transfer, and other non-trade foreign exchange services. In 1994, the bank was transformed into a wholly state-owned commercial bank, and listed in 2006.

Bank of China provides a comprehensive range of financial services to customers across the Chinese mainland as well as 41 countries and regions. The bank's core business is commercial banking, including corporate banking, personal banking and financial markets services. Subsidiary businesses include investment banking, fund management, insurance, and aircraft leasing.

Table 1: Bank of China Snapshot

ITEM	BANK OF CHINA
HQ LOCATION AND KEY GEOGRAPHIES	Beijing, China 41 countries, including Australia, Canada, United Kingdom, France, Germany, Russia, United States, Brazil, and Japan.
YEAR FOUNDED	1912
KEY METRICS	Operating Income: 474 billion RMB: Assets: 16.8 trillion RMB Employees: 310,000
RELEVANT TECHNOLOGIES AND VENDORS	D+H's payment services hub solution IBM Payments Integration Platform

Source: Bank of China

The Bank of China sought a payment system overhaul to unify all payments and clearing systems, globally. This included internalizing payment channels, centralizing global payment information, greater integration of systems and processes, and better support for the bank's RMB business.

Bank of China, like many banks that have grown in size, had different payment systems in each country, resulting in fragmented processes and limited sharing of information, along with high costs associated with maintaining multiple systems. With a single payment hub, Bank of China is able to unify its payments systems globally, connect local clearing systems to enable seamless payments between branches, and better serve its customers.

### Opportunity

Bank of China has used its size and standing to grow its business both in China and overseas. It now provides a comprehensive range of financial services to customers across the Chinese mainland, as well as 41 countries and regions. Furthermore, it plays a major role in international settlement, connecting to a wide range of global



payment and settlement networks, and providing a range of multi-currency clearing services.

Like many other banks who have undertaken such extensive growth, Bank of China found themselves with payment systems at overseas branches that were often run independently and on different platforms, resulting in large system maintenance costs, fragmented processes, and lack of information sharing. Many of these platforms were locally sourced, making support of them challenging. This was seen as a limitation to the bank's settlement and payment business, and therefore a challenge to greater growth.

The Bank of China realized that a payment system overhaul would improve processes and costs, but also enable them to become a leading player in the international playing field. It initiated a new payment platform, which it dubbed The Global Unified Payment Platform.

The key objective of the Global Unified Payment Platform project was to unify all global payments systems and connect the local clearing systems making payments between branches seamless. Other objectives were to internalize payment channels, centralize and share global payment information, integrate systems and processes, and support the bank's overseas RMB business.

Furthermore, the new platform would allow greater growth going forward. Prior to the payments overhaul, payments projects were typically implemented on a country-by-country basis, with a timeframe of between 6 and 15 months for each country depending on the complexity. As the rollout of the platform alone demonstrates, this would be dramatically reduced in the new platform.

### Solution

The goal of the Global Unified Payment Platform was to create a single platform that processes payments for the entire Bank of China Group, whether located domestically or internationally. It receives payment instructions, connects clearing systems and correspondent banks, and completes fund collection and payment transactions for both BOC and its customers. The platform and the core banking system jointly constitute an integral architecture of the payment system.

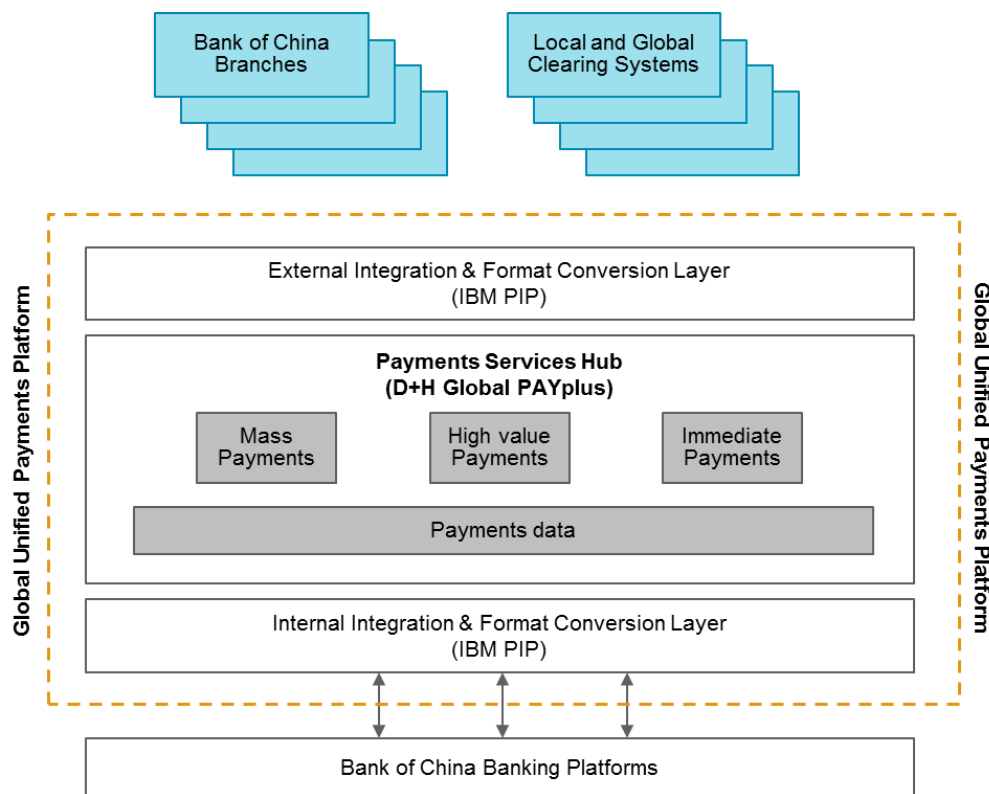
Finding the correct solution was a vital part of the process. In the project purchasing and evaluation process, several international suppliers participated in the bid for Global Unified Payment Platform system vendor. Bank of China took nearly a year to select IBM and D+H as Global Unified Payment Platform system vendors after evaluating against Bank of China's demands, product functions and supplier's capability of implementation.

The Global Unified Payment Platform is composed of two main elements, D+H's (formerly Fundtech's) payment services hub solution and IBM's payment integration platform (PIP).

D+H's payment hub solution combines an extensive set of payment services including high value payments, mass payments and immediate payments, in a single consolidated payments hub. The payment hub is built on an ISO 20022-compliant service-oriented architecture (SOA).

IBM's PIP is a payment integration platform that connects D+H's payment hub with the bank's internal system and local clearing system. It also handles message distribution and format conversion. In effect it provides an integration layer around the payment hub.

Figure 1: The Bank of China Global Unified Payments Platform



Source: Bank of China, Celent

### Results and Lessons Learned

The solution is being implemented in batches, with the third phase seeing the 5 American branches completed by the end of March 2016. Additional branches will be added as and when required. However, it shouldn't be downplayed the scale and complexity of the first two phases.

For example, the first phase, covering Asia-Pacific, saw 14 overseas branches in 12 countries implemented within the first year, followed by five additional branches in APAC in 2014. Previously each country took approximately 6 to 15 months each. The follow-up batches included the Euro-African batch of 16 overseas branches, and an American batch of five overseas branches going live in March 2016, with other future branches to follow.

Figure 2: The Programme Encompassed 30+ Branches in Three Phases

Phase	Date	Region	Achievements
1	2013-2014	APAC	<ul style="list-style-type: none"> <li>19 branches in 12 countries converted</li> <li>Connected to 19 local clearing systems, including FXYCS and BOJNET in Japan, DE and PDS in Australia, MEPS in Singapore, RENTAS and RENTAS-RMB in Malaysia, RTGS and SKN in Indonesia</li> <li>19 intra-bank systems connected to</li> </ul>
2	2014-2015	Europe-Africa	<ul style="list-style-type: none"> <li>16 branches in 13 countries converted</li> <li>Connected 25 local clearing systems, including SEPA and TARGET2 in euro zone</li> <li>Connected to 22 intra-bank systems</li> </ul>
3	2015-2016	North America/Other	<ul style="list-style-type: none"> <li>5 branches in the US</li> <li>Other branches in the Bank of China network</li> </ul>

Source: Bank of China

In the preparation before commencing the project, the joint project team from Bank of China, D+H and IBM identified three key risks.

These were:

- First, the overall complexity of the project.
- Second, the potential for inefficiency caused by differences between the various corporate and national cultures involved.
- And third, the lack of a ready-made suitable methodology to fit the Bank of China's environment.

The Bank of China provided guidelines to help mitigate all three risks, and these guidelines were followed closely through strong alignment between IBM, D+H and the bank.

For the first two points, all three parties invested significant time in establishing the right approach at the outset. Having paid off during phase one, this approach has become the best practice standard for subsequent phases. To achieve this, a team of over 200 professionals drawn from Bank of China, D+H, and IBM worked together. The cultural and languages cause some potentials for challenges, so a great focus was placed on collaborative working. This was done through strong project management to ensure a transparent working style.

The final risk was in a large part addressed by the eventual solution design. By using IBM's PIP integration layer to isolate D+H's payment hub solution, it was possible to utilise the standard elements of the D+H product and not modify them, but to use PIP to act as a "go between."



The project had four immediate objectives to meet Bank of China's strategy and long-term objectives. All objectives were met for the first phase, with the following results.

Table 2: Bank of China's Key Objectives for the Programme

ISSUE	RESULT
SWIFT public networks to deliver payment messages within bank of china	A single payment channel within Bank of China. Payment messages handled internally, reducing distribution costs and improving efficiency.
Disparate payment systems and processes	Integrated payment systems and combined core payment processes, reducing resource inputs and maintenance costs, and achieving harmony between business processes and standards.
Payment information/instructions were at times difficult to track throughout the process	Shared global payment information through the centralized management of data.
Growing overseas RMB business constrained by lack of flexible, responsive, and scalable platform	Ability to processes RMB local clearing and remittance transfer business of overseas branches, contributing to the rapid development of cross-border RMB business.

Source: Bank of China

In turn, these created numerous business benefits.

For example, the system can automatically repair the message format and content. This improves straight-through processing and process automation generally. As an example, the STP of Sydney, Tokyo, London, and Frankfurt braches now exceed 97%, improving the customers' service and experience.

Another example is being able to offer intermediary services: With the Asia-Pacific batch implemented in 2013, the commission income year-on-year growth for the Sydney and Tokyo branches in 2014 was 27.96% and 25.02% respectively.

Was this report useful to you? Please send any comments, questions, or suggestions for upcoming research topics to [info@celent.com](mailto:info@celent.com).

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## About Finastra

Finastra unlocks the potential of people and businesses in finance, creating a platform for open innovation. Formed in 2017 by the combination of Misys and D+H, we provide the broadest portfolio of financial services software in the world today – spanning retail banking, transaction banking, lending, and treasury and capital markets. Our solutions enable customers to deploy mission critical technology on premises or in the cloud. Our scale and geographical reach means that we can serve customers effectively, regardless of their size or geographic location – from global financial institutions, to community banks and credit unions. Through our open, secure and reliable solutions, customers are empowered to accelerate growth, optimize cost, mitigate risk and continually evolve to meet the changing needs of their customers. 48 of the world's top 50 banks use Finastra technology. Please visit [finastra.com](https://finastra.com)

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