

# Taiwan Business Bank creates responsive IT foundation for digital banking services



As its customers moved more of their transactions online, Taiwan Business Bank (TBB) sought to create a compelling digital service experience. To support this goal, TBB adopted a microservices- and container-based approach for several of its customer-facing banking systems. With a central, easy-to-use interface built with Red Hat OpenShift, TBB has automated routine, manual management and monitoring tasks. Now, the bank can easily scale to support traffic spikes while creating a foundation for agile application development.

## Software and services

Red Hat® OpenShift®  
Red Hat Consulting

## Financial services

125 branches  
5,200 employees



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**Mei Hwei Chen**  
Senior Manager, Information Department,  
Taiwan Business Bank

## Benefits

- ▶ Reduced manual work with central, automated infrastructure management
- ▶ Enhanced system monitoring and resource allocation
- ▶ Optimized service performance with responsive expert support

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**Sheng Chun Chou**

Junior Manager, Information Department,  
Taiwan Business Bank

## Supporting a rapid market shift to digital banking

Founded in 1915, Taiwan Business Bank (TBB) was the first bank in Taiwan for small and mid-sized enterprises (SMEs). As a result of market shifts—and the COVID-19 pandemic—TBB’s online transaction volume has increased more than 60% in recent years.

To support this rapid growth in digital traffic, the bank established a Digital Transformation Committee to improve its experience for hundreds of thousands of SMEs and personal banking customers. A key goal of these efforts was to not only retain existing customers, but also attract a younger customer base.

“We’re a bank with a long history, but this digital transformation will help us transform our brand image and services to offer a convenient experience that’s competitive with online-only banks,” said Mei Hwei Chen, Senior Manager, Information Department, TBB. “We wanted to create an easier-to-use, more responsive interface.”

In 2018, when much of its system software reached end of life, TBB was an early industry adopter of a container- and microservices-based IT infrastructure to support its digital experience goals. However, when the bank decided to complete a larger system upgrade—including its online, mobile, and web ATM banking services—and introduce new features, it faced several performance and security challenges with its Docker Swarm container orchestration software.

“During the trial, we found the manual operations and maintenance capabilities left too much room for human error. Debugging was similarly labor-intensive,” said Mei Hwei. “And just as our department was really getting to benefit from the new container architecture, we faced a series of problems from user-hostile mechanisms.”

## Adopting a responsive yet easy to manage container platform from Red Hat

TBB assessed options for a more powerful container platform from several vendors before choosing Red Hat OpenShift due to its built-in unified management capabilities. Red Hat’s long-term container technology leadership, support for a wider range of vendors, and volume of customer successes also contributed to TBB’s selection.

“We believe Red Hat is a leader in container technology and can help us provide a superior online experience to our customers,” said Mei Hwei.

Based on Kubernetes, Red Hat OpenShift is an enterprise container platform that supports rapid development of innovative services across on-premise and cloud environments. Its modular, flexible architecture, combined with comprehensive automation capabilities, also simplifies infrastructure management.

Working closely with Red Hat Consulting, TBB successfully migrated its personal online banking, mobile banking, and web ATM systems to Red Hat OpenShift in just four months.

## **Simplifying container operations and management to deliver reliable services**

### **Reduced manual work with central, automated infrastructure management**

Compared to its previous platform technology, TBB has now dramatically reduced the effort needed to maintain its container-based service environment. The bank can now manage a dozen container hosts through a single, central interface.

### **Enhanced system monitoring and resource allocation**

TBB's teams also have greater insight into operations through the robust monitoring capabilities included in the Red Hat OpenShift interface. Rather than limited visibility into service status by viewing hosts' individual performance logs, TBB can now easily track hosts' resource use from a central, user-friendly interface.

"Thanks to the automatic monitoring and scaling provided by Red Hat OpenShift, we can proactively respond to growth and increases in demand, rather than responding after manual evaluation of our compute capabilities," said Sheng Chun Chou, Junior Manager, Information Department, TBB.

### **Optimized service performance with responsive expert support**

With help from Red Hat's expert consultants from evaluation to deployment and beyond, TBB has quickly resolved any potential issues and optimized its container infrastructure to ensure its services are responsive and highly available.

"During implementation, when we had a problem with router settings, Red Hat helped us resolve the issue immediately after receiving our report," said Sheng Chun. "That kind of responsiveness, combined with their extensive technical expertise, makes us confident in our choice to work with Red Hat to support our customer-facing services and systems."

## **Expanding microservices development to new systems**

TBB now plans to continue restructuring its services and systems into microservices running on Red Hat OpenShift, including its core credit reference and granting system. The bank will prioritize migration of rapidly changing or high-traffic services, such as online account creation, credit care applications, and identity authentication.

To support this work, the bank plans to continue working closely with Red Hat Consulting to enhance its application development approach and online user experience.

"Beyond our current migration efforts, we want to adopt agile development practices in the form of continuous integration and continuous delivery (CI/CD)," said Sheng Chun. "We're confident that Red Hat and Red Hat OpenShift will help us achieve our technology goals and continue delivering compelling, timely financial services."

## About Taiwan Business Bank

Taiwan Business Bank (TBB) is one of eight government-owned banks in Taiwan. Founded in 1915, TBB has 125 branches in Taiwan and a total of eight in the United States across Los Angeles and New York, as well as in Hong Kong, Shanghai and Wuhan, and in Australia in Sydney and Brisbane. The bank's main customers are Taiwan's numerous small and medium-sized enterprises. It has an annual turnover of US\$780 million. <https://www.tbb.com.tw/>



## About Red Hat Innovators in the Open

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