

ttb adopts faster, microservices-based delivery with Red Hat and Dynatrace



Software
Red Hat® OpenShift®

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Thailand's TMBThanachart Bank (ttb) focuses on improving its customers' life-long financial well-being by delivering highly personalized services for all stages of life. When demand for digital services grew rapidly, ttb decided to rethink its IT architecture and solutions with microservices-based development. With a container-based infrastructure running on Red Hat OpenShift and advanced monitoring from Dynatrace, ttb can build, deliver, secure, and manage innovative services faster. The bank's teams can now provision new application environments in weeks or even days, rather than months, and any potential issues are proactively resolved before they affect customer-facing services.



Software industry

1,500 employees
18 offices worldwide

Benefits

- ▶ Reduced provisioning times from months to weeks, supporting weekly feature releases
- ▶ Achieved high reliability at scale to meet increasing demand and transaction volumes
- ▶ Enhanced adoption of modern application technology with local support and expert training

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Sutthikan Rungsirithong
Chief Information Officer, TMBThanachart Bank

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Niti Tanapiyawanit
Head of Modernized Technology & Services, TMBThanachart Bank

Providing timely, personalized financial services to the people of Thailand

In 2020, Thailand’s trusted financial institutions TMB and Thanachart Bank merged to form TMBThanachart Bank (ttb), a new bank with a mission to improve customers’ lifelong financial well-being.

“Our goal is to become a trusted advisor for our customers through valuable, long-term relationships. We want to deliver relevant services for them across all stages of life,” said Sutthikan Rungsrithong, Chief Information Officer, TMBThanachart Bank.

To meet increasing demand for digital services and provide personalized solutions, ttb works with a large ecosystem of partners. Supporting these partner relationships and meeting customer needs amid an increasingly complex regulatory environment led ttb to begin exploring ways to increase the flexibility, reliability, and security of its IT environment at scale. Its legacy architecture included a variety of technologies, leading to overwhelming management effort and requiring several months of lead time to provision and deliver an application platform.

The bank decided to work with its technology partners to adapt a centralized, microservices-based container platform—with a clearly defined roadmap to cloud computing and DevOps processes—for application development, deployment, and management.

“To stay ahead of competition, we needed to speed delivery of high-priority new features and services,” said Rungsrithong. “DevOps and microservices presented an opportunity to rethink our IT structure and workflows.”

Building a scalable, integrated container environment with Red Hat and Dynatrace

After evaluating community Kubernetes and deciding to seek an enterprise container platform, ttb completed extensive market research and proofs of concept (POCs) before deciding to adopt Red Hat OpenShift as the foundation of its new application environment.

Red Hat OpenShift is an enterprise Kubernetes container platform with comprehensive automation capabilities and support for a variety of development tools to help organizations build and deliver applications faster. ttb also deployed an intelligent monitoring solution from Red Hat partner Dynatrace for enhanced visibility into its applications’ performance.

“Our banking service needs to be robust. Combining self-managed freeware components would not provide the integrity we needed,” said Niti Tanapiyawanit, Head of Modernized Technology & Services, TMBThanachart Bank. “With tight integration between Dynatrace’s monitoring technology and Red Hat OpenShift, we gained a well-managed container environment in a single, fully integrated platform that did not require additional adjustment or management.”

ttb has now implemented nine Red Hat OpenShift clusters in an on-premise private cloud environment and migrated several services from its legacy environment, including its PromptPayGateway for interbank transactions and Data Gateway platform for corporate customers to exchange information for service fulfillments. The new container platform also supports ttb’s new customer-facing mobile banking application.

Scaling banking services and delivering new features at the speed of demand

Improved efficiency across DevOps teams with automation and self service

With [microservices](#)-based IT architecture, automation of manual tasks, and an iterative DevOps approach, ttb's teams can now work more efficiently. Self-service provisioning has reduced administrative effort for operations teams while delivering resources to developers faster. In addition, developers can adjust application sizes or models independently.

"Previously, provisioning a new application platform cluster would have taken our operations team several months," said Rungsrithong. "Now, with automated self-service through Red Hat OpenShift, they can now complete setup in just a few weeks or even days."

Improving back-end efficiency means ttb's development teams can now release new features to customers in weeks, rather than every few months. More frequent, iterative code changes following a continuous integration and continuous delivery (CI/CD) approach also helps ttb update and deliver code to meet new regulatory requirements faster.

Achieved high reliability at scale to meet increasing demand

National industry regulations require ttb to ensure a high level of service availability and [security](#). Combining an enterprise container infrastructure foundation with intelligent application monitoring helps ttb maintain the stability expected from a commercial banking institution.

When the Dynatrace technology detects potential issues, ttb's operations teams can take advantage of the automatic self-healing capabilities of Red Hat OpenShift to proactively resolve them before customers notice. As a result, customers can complete their transactions without interruptions—even as ttb scales to support growing demand for digital services.

"With our legacy approach, providing smooth operations during peak load times was difficult," said Rungsrithong. "Red Hat OpenShift provides a stable yet highly scalable platform to support increasing transaction volumes, especially for our PromptPay service."

Enhanced adoption of modern technology with local support and expert training

Working with partner technology vendors lets ttb take advantage of local support to continue enhancing its new container-based application development approach as its digital business grows.

"The excellent local support from both Red Hat and Dynatrace gave us peace of mind that our implementation would be a success," said Rungsrithong. "No matter how good a solution, local support is key to avoiding time zone issues and language barriers."

Additionally, the training programs, workshops, and on-site [support](#) provided by Red Hat helped ttb's teams gain experience with modern technologies. "The training and knowledge sharing provided by Red Hat and Dynatrace were critical to the success of our journey to microservices," said Rungsrithong.

Expanding success with container platform for Banking-as-a-Service

After its success with its new container foundation, ttb plans to continue expanding the platform across the bank. "When one area of the bank adopts Red Hat OpenShift to support its business solutions," said Rungsrithong. "Another area wants to do the same. We want to expand the adoption of Red Hat OpenShift and Dynatrace into other areas critical for our business."

About Dynatrace

From application and infrastructure monitoring to digital experience and application security, Dynatrace's monitoring platform leverages unified AIOps at its core to simplify cloud operations, automate DevSecOps, and integrate with all major cloud platforms and technologies. dynatrace.com

tbb plans to not only build any new applications on the platform but also migrate existing legacy applications to the Red Hat and Dynatrace technologies. Moving all applications to the platform will ensure they are well-managed and that the bank can meet the expectations of its customers. Rungsritthong explained that the bank had made Red Hat OpenShift and Dynatrace a standard requirement for both itself and its partners, and "expects adoption to rise."

"Our partnership with Red Hat and Dynatrace fits well with the long-term direction of our bank," said Rungsritthong. "Together, they give us the foundation for us to achieve our ambition of providing personalized services for our customers."

About TMBThanachart Bank (tbb)

TMBThanachart Bank Public Company Limited (tbb) is a business merger between TMB Bank Public Company Limited (TMB) and Thanachart Bank Public Company Limited (Thanachart). It brings about the unique strengths of TMB and Thanachart to raise financial well-being for Thai people.



About Red Hat Innovators in the Open

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About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. [A trusted adviser to the Fortune 500](#), Red Hat provides [award-winning](#) support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

f facebook.com/redhatinc
 @RedHat
 in linkedin.com/company/red-hat

North America
 1 888 REDHAT1
www.redhat.com

**Europe, Middle East,
and Africa**
 00800 7334 2835
europa@redhat.com

Asia Pacific
 +65 6490 4200
apac@redhat.com

Latin America
 +54 11 4329 7300
info-latam@redhat.com