Yapı Kredi is the third largest private bank in Turkey with total assets worth TL 486.5 billion as of 2020. Yapı Kredi has been sustainably strengthening its market position since its establishment in 1944, through a customer-centric approach and focus on innovation.

**Industry**
Financial Services

**Strategic priorities**
- App Modernization

**VMware footprint**
- VMware Tanzu™ Application Service
- VMware Tanzu Labs™
- VMware Tanzu™ Kubernetes Grid™ Integrated Edition
- VMware NSX®
- Dell EMC VxRail

Yapı Kredi Customers Enjoy a Better Digital Banking Experience

The third largest private bank in Turkey, Yapı Kredi, is increasing its in-house application development, agility, and end user satisfaction by placing VMware at the center of its modern IT infrastructure. Before finalizing its decision on VMware Tanzu™ Application Service as its application platform, Yapı Kredi conducted detailed POCs that lasted nearly nine months with three different vendors. VMware Tanzu Application Service came out on top due to its stability, developer-friendly APIs, and local support. Perhaps most importantly, Yapı Kredi appreciated the distinct abstractions for application development and IT operations teams.

**Adopting a modern infrastructure**

For years, Yapı Kredi built and ran applications based on monolithic architectures. But these systems were hard to update, making it difficult to keep up with increased competition as new fintech companies entered the market. If the bank wanted to continue to delight its customers, it would need to develop reliable software that could be easily improved. Yapı Kredi needed to adopt a new mindset and a modern infrastructure. It started by breaking down its software supply chain into discrete components and launching a microservices transformation project. More than 1,300 people in the bank’s IT team were enlisted as part of this ambitious project.
Migrating apps for a better customer experience

Tanzu Application Service running on-premises on Dell EMC VxRail was the first step. The organization began to modernize its core business systems, online corporate and personal banking, as well as mobile corporate and personal banking. Working with VMware Tanzu, the team set up a platform environment in the initial month, while the infrastructure and operations teams set up the necessary requirements for app migrations.

By leveraging Concourse for VMware Tanzu to create automated pipelines, it now takes the team only eight to ten hours to set up a new platform from scratch. As a result of this transformation, Yapı Kredi can easily move systems and add features to improve the customer experience. And thanks to an API-first architecture, users can access key features on any modern device. Hundreds of third-party services were also migrated after a careful planning process.

“Some time ago, the market was more patient towards crashes and unavailability,” says Taylan Güney, the Yapı Kredi EVP responsible for software architecture, application platforms, cloud, and database. “But today, with the systems getting better and better, patience levels are decreasing. Customers expect fast, intuitive apps that always get better. Regulations are getting harder and harder in Turkey. They will be even more strict with the Turkish equivalent of PSD2 and GDPR regulations.”

Yapı Kredi is ready for the digital world

After placing VMware in the middle of its modernized systems, the bank is now preparing to run additional systems atop a Tanzu Application Service environment. Many of its current integrations with JIRA, Dynatrace, Prometheus, Grafana, AWS X-Ray, and Artifactory can remain in place, which allows Yapı Kredi to continue to benefit from its existing investments.

Now, the bank is ready to deliver a superior customer experience and remain competitive in the marketplace. It has never been more important to produce high-quality products quickly, monitor them closely, and rapidly adapt when necessary. Tanzu Application Service allows Yapı Kredi to instantly scale an environment when traffic from digital channels spikes. With an API-first design, Yapı Kredi has a great advantage in terms of being future-proof, since it allows for more composable solutions and prepares the company for additional banking regulations.

With this kind of visionary approach, its digital infrastructure was already prepared for significant change and the IT team adapted to a new working model very rapidly.

“With VMware Tanzu, we can now offer innovations faster and the level of security has also increased as we work together with the local VMware team. The team worked closely with us during the proof-of-concept period, introduced us to other VMware Tanzu customers, and shared their valuable expertise with us.”

Taylan Güney, EVP Software Architecture Application Platforms and Cloud, Yapı Kredi

Navigating change brought on by COVID-19

After the COVID-19 pandemic hit, Yapı Kredi closed several of its branches and customers quickly switched to online banking systems. As a result, the number of users accessing digital channels increased by 20 to 25 percent. These changes made the online banking systems even more critical to the bank’s future. However, thanks to its modernization efforts in prior years, Yapı Kredi was well prepared for the shifts in working requirements and the challenges brought on by COVID-19.
DevOps is critical
After seeing the benefit of working with Tanzu Application Service, Yapı Kredi created product teams to both develop and operate the system. Software teams can now work independently from one another. As Yapı Kredi adopted domain driven design principles, it can now install upgrades through code. This allows the team to reduce costs and errors since any problem can be identified and solved quickly. Tanzu Application Service emits events, logs, and metrics to Prometheus and VMware vRealize® Log Insight, allowing product teams to closely monitor its products and take action when needed. The team can customize monitoring points providing a much faster, specialized solution. Additionally, teams can quickly detect errors or problems and implement changes much faster, even during the same workday.

Overall, Yapı Kredi can deploy new capabilities and microservices in a shorter time. While there were big monthly releases and small weekly releases before, the bank can now release during business hours. Developers used to have to wait for a specific release time to deploy code. Now, in one click, they can deploy to a non-production environment, and soon they will deploy directly to production environments.

“With VMware Tanzu, we can now offer innovations faster and the level of security has also increased as we work together with the local VMware team,” says Güney. “The team worked closely with us during the proof-of-concept period, introduced us to other VMware Tanzu customers, and shared their valuable expertise with us.”

Güney also notes that the VMware Professional Services helped with installation and product usability, and it is continuing to migrate additional systems on-premises to use with Tanzu. Additionally, VMware NSX® allows the team to apply firewall policies instantly across the entire system. The bank has achieved increased scalability and security without any compromise to meet the needs of its customers and continues to provide essential services.

Looking ahead
Yapı Kredi is embracing digitalization with VMware. In a highly competitive sector, the bank is ready to meet its customers’ ever-evolving needs with a modernized infrastructure that offers increased scalability as well as security without any compromise. The bank is now running its applications on its new infrastructure to offer the best service possible to its customers with increased uptime and decreased disruptions.