



Halkbank

Extending banking services on social and mobile channels securely and cost-effectively

Overview

The need

Halkbank in Turkey wanted to reach out through new web and mobile channels, and simultaneously satisfy new banking regulations. How could the bank grow rapidly, cost-effectively and without disruption?

The solution

Building on more than 25 years of success, Halkbank is deploying new environments on the IBM mainframe to support multi-channel banking and to accelerate internal risk reporting and analytics.

The benefit

Single consolidated platform for core banking, risk analytics and new multi-channel offerings, reducing hardware and operational costs. Zero unplanned downtime in more than 25 years.

Founded in 1933 and headquartered in İstanbul, Turkey, Halkbank is the country's sixth largest bank in terms of assets and branch network. Beyond retail banking, Halkbank has a particular focus on providing banking services to small and midsize businesses, helping them to grow through responsible lending.

Stable platform in times of change

As the popularity of the web and mobile devices soars, Halkbank wanted to capitalize on these new mobile channels. Simultaneously, the bank must comply with stringent new banking regulations that require the continual development of new capabilities in compliance, audit, security risk analysis and reporting.

Additionally, the Turkish state – a 51 percent shareholder – pays most of the government salaries through the bank, causing a once-monthly peak in daily transactions, increasing from 25 million to 50 million. Halkbank's systems must be able to absorb significant spikes in transactional volumes without disruption to business-as-usual activities.

And like any other business, Halkbank must maintain existing services and constantly adapt to new challenges without incurring unsustainable costs for IT.

As mobile banking grows in popularity, Halkbank is building new capabilities on trusted technology. "Mobile banking is a fast growing channel for Halkbank. As for all other channels, we run the transactions themselves on our CICS and DB2 for z/OS systems, which helps to ensure the highest levels of performance, availability and security," says Ayhan Yalkut, System z Manager, Halkbank.



Solution components

Software

- IBM® CICS® Interdependency Analyzer for z/OS®
- IBM CICS Performance Analyzer
- IBM CICS Transaction Gateway for z/OS V8.1
- IBM CICS Transaction Server V4.1
- IBM DB2® Analytics Accelerator for z/OS
- IBM DB2 for z/OS Version 10
- IBM DB2 Utilities Suite for z/OS V10.1
- IBM RACF®
- IBM Rational® COBOL Runtime
- IBM Security zSecure™ Admin V1.13
- IBM WebSphere® Application Server
- IBM WebSphere MQ V7.1
- IBM z/OS V1.13
- IBM z/VM® 6.2

Hardware

- IBM zEnterprise® 196
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Ayhan Yalkut, System z Manager at Halkbank, comments: “As a bank, we must provide services that our customers trust to be available and secure at all times. For Halkbank, everything comes back to the reliability, stability and security of IBM® CICS® and DB2® on the IBM System z® mainframe: in more than 25 years of continuous operations, we have never had any unplanned downtime. This makes the mainframe an ideal platform for managing both the growth of our business and the development of new services as we tackle tomorrow’s challenges.”

Building on solid foundations

Halkbank runs its core banking systems using IBM CICS Transaction Server running on IBM z/OS® with IBM DB2 for z/OS on two IBM zEnterprise® 196 servers. “We believe CICS to be the most powerful middleware available in the market,” says Cenk Niksarlı, Head of IT Infrastructure at Halkbank. “Availability, reliability, performance, security and data integrity are all vital for the finance sector, and CICS coupled with DB2 for z/OS provides all of these. They also supports newer technologies such as Java and Web Services, so we find it easy to implement new services – especially business-critical ones – using CICS and DB2 for z/OS.”

Following a successful proof of concept in 2011, Halkbank extended its mainframe environment by deploying Integrated Facility for Linux (IFL) engines to run virtual instances of SUSE Linux Enterprise Server hosted on IBM z/VM®.

“We needed to standardize our application server landscape, and we decided to use IBM WebSphere® Application Server on Linux on the mainframe,” says Ayhan Yalkut. “This platform gives us a great degree of flexibility and scalability, with lower infrastructure costs than for the equivalent distributed environment. Also, we can include Linux-based systems in the mainframe disaster recovery solution, which reduces complexity and cost.”

Automated security

Data security is vital for Halkbank, which has relied on IBM RACF® to control system access rights for more than 25 years. Recently, the bank deployed IBM Security zSecure™ Suite to simplify the management of security, as Ayhan Yalkut explains: “Over all the years of using RACF, we had built up a large number of different user IDs and group definitions, many of which had become obsolete following organizational changes. Cleaning up and managing all the definitions in RACF had become a difficult and time-consuming task.

“For Halkbank, everything comes back to the reliability, stability and security of IBM CICS and DB2 on the IBM System z mainframe.”

— Ayhan Yalkut, System z Manager, Halkbank

“Using zSecure, we can automatically remove unused definitions, and we can also delegate control over user access rights to a team on the business side that is responsible for security. This reduces the strain on the IT team, saving us significant time and effort, and it gives control back to the people who best understand the organizational structures.”

z is for analytics

For business and regulatory reporting, Halkbank uses a large data warehouse based on DB2 for z/OS to consolidate and prepare data sourced from operational databases. Large queries and reports run as overnight batch jobs; the bank has recently deployed IBM DB2 Analytics Accelerator to speed up reporting.

Says Cenk Niksarlı, “We wanted to improve the performance for complex analytic queries – both in order to support rapid and accurate decision making, and in order to meet deadlines for regulatory reporting, where we face penalties of tens of thousands of dollars for late reporting. We expect to be able to move 70 percent of our queries to DB2 Analytics Accelerator, accelerating queries, reducing our DB2 licensing costs on the mainframe, and freeing up processing resources for other workloads.”

Unified development

Software development for the mainframe and other platforms at Halkbank relies on IBM Rational® technologies. The bank uses Enterprise Generation Language (EGL) to develop its core banking applications, employing IBM Rational COBOL Runtime on z/OS systems to generate COBOL code from EGL, and IBM Rational Team Concert running on a distributed landscape to manage versioning and code build processes.

“Using Rational products for all of our cross-platform development saves time, keep our lives simple, and gives us flexibility in the application development process,” says Ayhan Yalkut.

Consolidated benefits

With core banking systems running on CICS on the IBM mainframe, Halkbank has an ultra-reliable, high-performance platform to support the heart of its business. By centralizing risk analytics and newer Linux-based services also to the mainframe, the bank benefits from reduced infrastructure complexity and consolidated processes for systems management and security.

“By running other important workloads alongside our core banking systems on the mainframe, we can ensure that they share the same quality of service and the same arrangements for administration, security, backup and disaster recovery,” concludes Cenk Niksarli. “This means that a small team of mainframe specialists can provide excellent support for a wide range of systems, keeping service levels high while minimizing operational costs.”

For more information

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