

# AvivaSA adopts containers to speed services with Red Hat OpenShift



#### Software

Red Hat® OpenShift®

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Application Platform

Turkish pension and life insurance provider AvivaSA sought to expand its IT Modernization Program to prepare for government permission to use public cloud environments. To create a container- and microservices-based architecture, the company expanded its Red Hat environment with Red Hat OpenShift. Now, AvivaSA uses its responsive, reliable container platform to deliver services 95% faster while reducing costs by 23%—leading the way to a cloud-based future for Turkey's finance industry.



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# Yaşar Karadeli

Head of Software Development, AvivaSA

#### Insurance and pensions

1,560 employees

### Benefits

- Reduced operating costs by 23% with optimized management and resource use
- Cut environment build times by 95%, accelerating time to market
- Extended platform reliability to container environment
- Created foundation for future cloud adoption



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# Continuing IT modernization efforts with cloud and container adoption

AvivaSA Emeklilik ve Hayat A.Ş. (AvivaSA), a provider of private pension and life insurance services, is a joint venture between Sabancı Holding and British insurance company Aviva plc. It distributes services through several channels, including direct sales, corporate and branch locations, phone, web, and mobile.

In 2017, Turkey's government began requiring all private-sector employers to automatically enroll employees into a pension plan. In response, AvivaSA introduced its IT Modernization Program, an extensive initiative of 44 projects. To support this work, the company adopted Red Hat JBoss Enterprise Application Platform to manage its many Java™ applications and Red Hat's single sign-on technology to centralize security and integrate multiple sources of authentication. As a result, AvivaSA successfully launched a new pension auto-enrollment plan, completed 30 million pension transactions by the end of 2017, and won 282,000 new pension contracts.

Recently, AvivaSA decided to continue its IT modernization efforts by migrating from its service-oriented architecture (SOA) to a microservices- and container-based architecture, supported by an onpremise cloud strategy.

"Moving to the cloud and containerizing the technology supporting our services would increase business agility in anticipation of government permission to allow finance companies to use public cloud at some point in the future," said Yaşar Karadeli, Head of Software Development at AvivaSA.

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is one of the top
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great features."

#### Kağan Aydınyüz

Manager, Information Technologies Integration Applications Unit, AvivaSA

# Enhancing enterprise service environment with Red Hat OpenShift

After its success with Red Hat technology, AvivaSA turned to Red Hat for a supported, open source container platform that took advantage of the rapid innovation and troubleshooting of the community while providing the required reliability.

"Red Hat OpenShift is one of the top container products, with operational efficiency and dynamic management among its great features, so we didn't need to consider any other options," said Kağan Aydınyüz, Manager, Information Technologies Integration Applications Unit at AvivaSA. "We were, and still are, very happy with the performance of our other Red Hat products."

Based on the Kubernetes container orchestration technology and Red Hat Enterprise Linux, Red Hat OpenShift is a container application platform with full-stack automated operations and a user-friendly interface on a consistent foundation across any on-premise, cloud, or hybrid infrastructure.

AvivaSA worked closely with Red Hat to design, build, and test Red Hat OpenShift in an on-premise, virtualized environment. With assistance from its operations partner SabancıDX, the financial services company migrated four critical business systems to the new environment over six months: pension auto-enrollment, a sales mobile application, bancassurance services—a partnership where an insurance company sells products to a bank's client base. The company also migrated applications used by its partner Akbank and usd for AvivaSA's internal operations.

After the completion of its IT Modernization Program, AvivaSA now processes close to 40% of its critical transactions—around 5 million transactions per day—with systems running on Red Hat OpenShift and its other Red Hat technology.



# Achieving cost and performance improvements with containers

# **Reduced OpEx by 23%**

AvivaSA has used the self-healing and auto-scaling capabilities built into the latest version of Red Hat OpenShift to help reduce its operational expenses (OpEx) by 23% by reducing manual work time for maintenance and other routine tasks. For example, SabanciDX's team no longer needs to spend time monitoring and adjusting the production environment to meet service-level agreements (SLAs) that ensure service availability for customers.

"Previously, administrators had to react manually if a workload needed additional memory or CPU capacity, or if there was an error," said Aydınyüz. "Red Hat OpenShift automatically restarts any application that encounters an error, decreasing service interruptions."

More reliable operations means SabanciDX can now offer a pay-as-you-go model that contributes to AvivaSA's financial savings.

"The computing capacity we are using today has increased, but our costs are still lower compared to our previous approach," said Aydınyüz. "We pay our third-party provider for our actual hourly use of computing resources, such as CPU and memory. This is a new approach in Turkey that's possible with the help of the metrics Red Hat OpenShift provides."

### Cut environment build times by more than 95%

Previously, creating new development environments took AvivaSA three to four days. Now, with Red Hat OpenShift, that same provisioning work can be completed in just three hours. As a result, the company has improved time to market for both updates and new features and services.

"Red Hat OpenShift lets us quickly set up a new environment or easily make changes to the applications running in production, with minimal disruption to our service availability," said Aydınyüz.

# Achieved high reliability for container environment

Dynamic management built into Red Hat OpenShift helps AvivaSA extend the reliability of its existing Red Hat architecture to its new, container-based environment.

"The reliability on-premise Red Hat OpenShift delivers is critical to our business continuity. Any problems with the platform would bring the company to a halt," said Karadeli. "We have had no major issues or errors with either capacity or performance since we adopted Red Hat technology years ago."

This reliability has helped AvivaSA extend its partnership with Akbank, which now operates some financial applications on Red Hat OpenShift on AvivaSA's behalf.

# Created foundation for future cloud adoption

Migrating critical core applications to Red Hat OpenShift on-premise has helped AvivaSA be prepared if the Turkish government allows the use of cloud computing environments in the future.

"As a Kubernetes platform, Red Hat OpenShift ensures we are ready for public cloud when Turkish regulations allow," said Aydınyüz. "It will make it very easy for us to move to a public or hybrid cloud environment."



# Preparing for an innovative future

AvivaSA is looking to continue expanding its Red Hat environment with Red Hat OpenShift Service Mesh, a component that standardizes connecting, managing, and monitoring microservices-based applications.

The company is also evaluating Red Hat CodeReady Workspaces, a collaborative Kubernetes-native development solution that delivers OpenShift workspaces and in-browser integrated development environments (IDE) for rapid cloud application development.

"We like that CodeReady does not restrict developers to their desks but instead lets them work remotely, in the cloud," said Aydınyüz.

AvivaSA plans to continue promoting its adoption of Red Hat technologies to attract and retain top IT talent.

"Red Hat OpenShift has helped us become the first company in the Turkish insurance market to move to a container platform," said Karadeli. "We are now a great example for other Turkish companies in how to innovate."

# **About AvivaSA**

AvivaSA is one of Turkey's leading insurance and pension providers. The company was founded in 2007 through a joint venture between Aviva, the UK-based multinational, and the local Sabanci Holding.

#### **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 integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.



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