

TURKCELL SCALES CLOUD STORAGE WITH RED HAT OPENSTACK PLATFORM



SOFTWARE AND SERVICES

- Red Hat® OpenStack® Platform
- Red Hat Enterprise Linux®
- Red Hat Consulting
- Red Hat Training and Certification

Mobile service provider Turkcell needed a more flexible, scalable platform to meet the demands of its consumer cloud storage product, lifebox. To achieve these improvements, the company chose to deploy Red Hat OpenStack Platform with OpenStack Swift for data storage. With support from Red Hat's enterprise services—including consulting, training, and certification—Turkcell has used the platform to deploy new features faster, simplify management, and scale to accommodate expected growth—all while reducing costs.



HEADQUARTERS



TELECOMMUNICATIONS

16,000 EMPLOYEES IN 9 COUNTRIES

“Red Hat is one of the pioneers in the OpenStack community, and we wanted to benefit from that experience and knowledge.”

ORHAN BIYIKLIOĞLU
SENIOR SYSTEMS ADMINISTRATOR, TURKCELL
2017 RED HAT CERTIFIED PROFESSIONAL OF THE YEAR

BENEFITS

- Increased scalability and agility to meet massive predicted growth and deploy new features faster
- Improved reliability and stability with simplified management and longer life cycle
- Reduced total cost of ownership (TCO) by eliminating vendor lock-in and lowering licensing fees
- Gained expert guidance and support from Red Hat consultants



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LEGACY CLOUD PLATFORM DELAYS INNOVATIVE SERVICE DEVELOPMENT

With more than 50 million subscribers, Turkcell is the leading mobile operator in Turkey and the surrounding region. Since launching the country's first GSM mobile network, Turkcell has continuously innovated to provide new voice and data services to its customers. The company recently started to build lifebox, a cloud-based storage offering that lets customers store and share photos, music, and videos, as well as document files, in the cloud. This solution can be used across devices, including desktops and mobile devices via iOS and Android applications.

Turkcell began developing lifebox using a legacy third-party solution, but soon encountered several issues, including high costs and delayed updates.

"The existing solution didn't meet our needs for scalability, and we were also experiencing some architecture problems," said Orhan Bıyıklıoğlu, senior systems administrator at Turkcell.

As a result, Turkcell sought a more cost-effective, agile, and flexible platform to continue to build and launch its new service.

A TRUSTED VENDOR OFFERS A FLEXIBLE, SCALABLE OPENSTACK SOLUTION

After deciding to use OpenStack to support lifebox, Turkcell evaluated several platform options before choosing to migrate to Red Hat OpenStack Platform, supported by OpenStack Swift for object storage.

Turkcell had used Red Hat Enterprise Linux for more than a decade after migrating from UNIX and was impressed by its flexibility and agility, making Red Hat a compelling option for new platform needs. Red Hat OpenStack Platform is co-engineered to optimize the critical interdependency between Linux and OpenStack.

"We already had a good relationship with Red Hat, and we had good contacts with them on the Red Hat Enterprise Linux side," said Bıyıklıoğlu. "Red Hat is one of the pioneers in the OpenStack community, and we wanted to benefit from that experience and knowledge.

Cost was another factor in choosing Red Hat. Red Hat offers its products, including Red Hat OpenStack Platform, through a cost-effective, subscription-based model.

In addition, Turkcell sought a vendor that could provide enterprise-level support. The company engaged Red Hat Consulting to ensure smooth migration of lifebox to Red Hat OpenStack Platform.

OPENSTACK PLATFORM MEETS CLOUD AND DATA CHALLENGES GREATER SCALABILITY AND AGILITY

Lifebox currently has over three million users and stores more than 4PB of data, and Turkcell plans to expand the platform within the next year. As each user is given 1GB of free storage, the platform's data storage needs could easily accelerate even further.

With Red Hat OpenStack Platform, Turkcell can easily scale to meet these expanding needs. In addition, Swift offers a resilient, flexible solution for unstructured data storage, with billions of objects distributed across multiple containers. Turkcell's team can use growth estimates to plan the platform's architecture to ensure they can redistribute data smoothly as new disks and servers are added to meet increasing demand.

The Red Hat solution also lets Turkcell quickly and easily add new features to lifebox. By rapidly developing and launching new features, Turkcell can win and retain customers, gaining a competitive advantage.

“The business side of Turkcell always wants things done faster,” said Biyıklıoğlu. “With Red Hat OpenStack Platform and our other new solutions, we have built a flexible infrastructure that helps our developers add features quicker. The infrastructure is no longer the bottleneck in deploying new features.”

IMPROVED RELIABILITY AND STABILITY

The Red Hat OpenStack solution has been reliable and stable, with no outages—a key requirement for supporting the critical data of Turkcell’s users.

In addition, the Red Hat solution offers greater stability through its extended life cycle. Competing products operate on a six-month life cycle, making it difficult and time-consuming for large enterprises such as Turkcell to keep up.

“We’re an enterprise. We’re not moving that fast, and we cannot upgrade our environment every six months,” said Biyıklıoğlu. “Red Hat offers us a life cycle of at least three years, giving us more time to test and ensure critical systems will remain stable, without downtime.”

REDUCED TOTAL COST OF OWNERSHIP

By simplifying management of Turkcell’s IT infrastructure, Red Hat OpenStack Platform and the company’s other Red Hat solutions have helped it reduce the total cost of ownership (TCO) for the lifebox platform.

In addition, Red Hat’s open source software solutions have helped the company avoid vendor lock-in and related costs.

“By moving from a third-party product to our own application, we don’t have to pay licensing fees, which is a significant saving,” said Biyıklıoğlu. “Being based on an open source platform, the solution also means that we could easily migrate to another provider if we ever needed to, without massive migration costs.”

ACCESS TO EXPERT SUPPORT AND SERVICES

By engaging Red Hat Consulting, Turkcell not only gained hands-on expert support during migration but also access to ongoing support for its new Red Hat infrastructure.

“We were very satisfied with the work performed by the Red Hat consultant,” said Biyıklıoğlu. “As one of the co-developers of the OpenStack Swift project, he had a lot of previous experience, and he was responsive and easy to communicate with. Red Hat is considered a key IT vendor at Turkcell.”

In addition, Turkcell’s IT teams engaged Red Hat Training and Certification to achieve and provide proof of skill and knowledge related to the company’s OpenStack and Red Hat technologies.

“I was the first Red Hat Certified Engineer (RHCE®) on my team at Turkcell. We now have 15 Red Hat Certified Engineers and expect to have more in the future,” said Biyıklıoğlu, who has also achieved Red Hat Certified System Administrator (RHCSA®) certification and was named 2017 Red Hat Certified Professional of the Year. “We are running thousands of servers and workloads, and we provide many different services for our customers on Red Hat Enterprise Linux servers. Our proficiency in Red Hat products is quite important, and we use Red Hat certifications as a means to measure this proficiency.”



CUSTOMER CASE STUDY Turkcell scales cloud storage with Red Hat OpenStack Platform

PLANS FOR EXPANDING SOLUTION TO BENEFIT FUTURE INNOVATION

With its success using Red Hat OpenStack Platform for lifebox, Turkcell has also deployed Red Hat OpenStack Platform for BiP, its IP-based messaging application and plans to build new applications on the platform to offer cloud-based IT services to business customers. Turkcell is also considering expanding its use of the platform to network functions virtualization (NFV) projects.

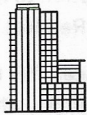
“Overall, I would recommend Red Hat OpenStack Platform,” said Biyıkliöđlü. “We’re running a very large infrastructure and we’ve worked successfully with Red Hat for several years. Their support is always good.”

ABOUT TURKCELL

Turkcell is a converged telecommunication and technology services provider, founded and headquartered in Turkey. It serves its customers with voice, data, TV, and value-added consumer and enterprise services on mobile and fixed networks. Turkcell launched LTE services in its home country on April 1st, 2016, employing LTE-Advanced and 3-carrier aggregation technologies in 81 cities. In 2G and 3G, Turkcell’s population coverage is at 99.63% and 96.21%, respectively, as of March 2017. It offers up to 1 Gbps fiber internet speed with its FTTH services. Turkcell Group companies operate in 9 countries—Turkey, Ukraine, Belarus, Northern Cyprus, Germany, Azerbaijan, Kazakhstan, Georgia, and Moldova—as of March 31, 2017. Turkcell Group reported a TRY4.1 billion revenue in Q117 with total assets of TRY33.0 billion as of March 31, 2017. It has been listed on the NYSE and the BIST since July 2000, and is the only NYSE-listed company in Turkey. Read more at www.turkcell.com.tr

ABOUT RED HAT

Red Hat is the world’s leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.



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