

sahibinden.com delivers reliable retail services faster with Red Hat OpenShift

sahibinden.com

Software and services

Red Hat® OpenShift® Red Hat Consulting To maintain its market-leading position against competition from start-ups and global retailers, Turkish classified listing and e-commerce platform sahibinden.com decided to modernize its IT infrastructure and works approaches. The company began a three-phase project to migrate its existing virtual machines (VMs) into container workflows with Red Hat OpenShift, running in a private cloud environment across its two datacenters. With this new architecture, combined with DevOps workflows, sahibinden.com has decreased system reliability incidents by 97%, improved developer productivity and time to market, and enhanced its reputation for technology innovation.



"Red Hat OpenShift is the clear leader in enterprise Kubernetes. And while the virtualization market leaders can run Kubernetes on their virtualized infrastructure, only Red Hat OpenShift can run our whole virtualization environment within its Kubernetes container platform."

Hayri Yalçınkaya

Director of Infrastructure Management, sahibinden.com

Retail

Around 900 employees

Benefits

- Decreased system reliability incidents by 97% with active-active datacenter configuration and improved scalability
- Improved DevOps
 experience with combined
 VM and container
 management
- ► Enhanced talent attraction and retention
- Optimized container adoption with expert support and guidance

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"Red Hat technology stands out from the competition in terms of its ability to run virtualized workloads and container workloads in a streamlined and well-integrated manner. Red Hat allows us to deliver value to our users more quickly, minimizing time to market and accelerating the software development life cycle."

Gökhan Ergül
CTO, sahibinden.com

Maintaining leadership of Turkey's online retail market

Turkish classified listing and e-commerce platform sahibinden.com is one of Turkey's most visited websites, with 58.1 million monthly active users, 463.4 million visits, 12.7 billion pages views, and 5 million active listings across product types as of December 2021.

To support its focus on delivering innovative services and user experiences at the pace of demand, sahibinden.com sought to modernize its IT architecture and work approaches. The company operates two datacenters, working in active-passive mode. If one datacenter experienced an outage, there was a delay before the standby datacenter could take over any workloads. Additionally, the company's IT infrastructure struggled to scale to accommodate seasonal or other traffic spikes.

sahibinden.com decided to migrate its datacenter- and virtual machine (VM)-based infrastructure to VMs running workflows within Kubernetes containers. The first stage of this migration would be moving its entire virtualized environment to run within an open source container orchestration system.

"We had a huge investment in virtualization, so we needed a more gradual, less disruptive approach," said Hayri Yalçınkaya, Director of Infrastructure Management, sahibinden.com. "We decided to start with creating a microservices development environment to accelerate our time to market, improve our resilience, and simplify infrastructure management."

Balancing existing infrastructure investments and modern performance demands with Red Hat

After completing a request for proposal (RFP) process, sahibinden.com decided to adopt Red Hat OpenShift, running in an on-premise private cloud, as the foundation of its new Kubernetes container environment.

"We knew Kubernetes was the leading container technology. We wanted to avoid vendor lock-in with an open source solution, but we have always put a great deal of focus on operational security and efficiency," said Yalçınkaya. "Red Hat OpenShift is the clear leader in enterprise Kubernetes. And while the virtualization market leaders can run Kubernetes on their virtualized infrastructure, only Red Hat OpenShift can run our whole virtualization environment within its Kubernetes container platform."

Red Hat OpenShift provides a stable, security-focused foundation and comprehensive automation for development innovation across hybrid IT environments. It lets teams work with their choice of supported languages, frameworks, and databases to accelerate development and deployment.

The first of three project phases, transforming sahibinden.com's primary on-premise datacenter in Ankara, was completed in late 2021. Phases 2 and 3 of the project have started in parallel: modernizing the company's Istanbul datacenter and implementing DevOps tools, refactoring legacy applications for containers, and developing microservices-based applications. The project is now one of the world's largest Red Hat OpenShift bare-metal deployments, hosting more than 2,400 VMs on two datacenters.

sahibinden.com's teams worked closely with Red Hat Consulting to design and provision the new, container-based architecture, as well as learn from ongoing collaboration as the project's next phases begin. "Red Hat Consulting played a crucial role in our success. Their experts worked alongside our team for 12-hour days over three weeks to gain hands-on experience and build skills with on-the-job training," said Ergül.



Delivering a more reliable, innovative retail experience

Increased service availability and stability

As part of its shift to containers, sahibinden.com adopted an active-active datacenter configuration, where its two datacenters share workload within the company's private cloud environment.

New and refactored container-based applications are deployed across multiple Red Hat OpenShift nodes within this private cloud. As a result, the company has eliminated any potential delays in recovering from node outages.

With access to on-demand cloud resources, sahibinden.com can easily scale to meet peak traffic demands, such as during holiday shopping times—or during the COVID-19 pandemic, when more people were completing purchases online due to lockdowns or safety concerns.

"We have already seen our system reliability incidents decrease by 97%, even while our operational workload has been significantly reduced compared to our previous infrastructure," said Ergül.

Improved DevOps experience with combined VM and container management

With Red Hat OpenShift Virtualization, an included component based on the KubeVirt open source technology, sahibinden.com's teams now manage VMs and containers on a single platform. Developers can run a virtual machine within a container to develop, manage, and deploy them side by side.

Additionally, this new approach eliminates manual management and provisioning tasks by uniting separate operating systems for various VMs within a single management platform. DevOps teams can now focus on building and delivering innovative services and features, rather than time-consuming infrastructure management tasks.

"We no longer need to upgrade the operating system for each virtual machine, which not only saves time but also helps us create a more secure environment," said Yalçınkaya.

Enhanced talent attraction and retention

sahibinden.com faces tough competition from startups and global brands for skilled developers. By adopting a modern container infrastructure and DevOps approach, the company can attract and retain the talent it needs to continue delivering innovative services ahead of the market.

"Over the last 10 years, sahibinden.com has won many awards for innovation and recognition for being the first to market with new services. But to continue to be one of the market leaders, we're changing both our technology and our culture to cement our reputation as a place where great work happens and careers can flourish," said Yalçınkaya. "We now have the open source agility and tools, combined with the DevOps and automation workflows, to continue creating competitive services for our business."

Optimized container adoption with expert support and guidance

Working closely with Red Hat Consulting before, during, and after deployment has helped sahibinden. com's IT teams build an effective architecture, troubleshoot any issues quickly, and continue enhancing its skills.

"During the COVID-19 lockdowns, Red Hat set up a group chat for all product managers and engineers to communicate quickly," said Yalçınkaya. "If we have a problem, Red Hat Consulting rapidly escalates it to their highly skilled engineers to get it addressed quickly."

The team is continuing to work with Red Hat's consultants to optimize its use of DevOps tools and increase developer productivity as it completes phases 2 and 3 of its container adoption journey.

"We have all learned from each other, which is important because the journey is not always straightforward," said Yalçınkaya. "And working closely with Red Hat means we can share our feedback on the OpenShift product roadmap and our experience with Red Hat OpenShift Virtualization to influence future development."

Continuing container adoption journey to find new value

As it continues its container adoption journey by expanding its use of Red Hat OpenShift, sahibinden. com is focused on increasing the value of the platform for its developers and delivering cloud-native applications to market faster.

"Red Hat technology stands out from the competition in its ability to run integrated, streamlined, virtual, and container workloads. Those capabilities help us build and deliver valuable software faster," said Gökhan Ergül, CTO, sahibinden.com. "We are excited to see what the future brings as we continue to modernize our infrastructure and development approaches."

About sahibinden.com

sahibinden.com is one of the leading technology companies in Turkey. With approximately 900 employees, 58.1 million users, 463.4 million visits, 12.7 billion page views, and 5 million active listings and thousands of different product types, sahibinden.com is one of the largest electronic commerce and classified platforms in Turkey.



About Red Hat Innovators in the Open

Innovation is the core of open source. Red Hat customers use open source technologies to change not only their own organizations, but also entire industries and markets. Red Hat Innovators in the Open proudly showcases how our customers use enterprise open source solutions to solve their toughest business challenges. Want to share your story? Learn more.



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.

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