

A1 Bulgaria updates digital service strategy with Red Hat OpenShift



A1 Bulgaria is one of the country's leading telecommunications and digital service providers. The business is transforming its digital channels to increase efficiencies and open new lines of revenue. Together with its trusted technology partner Musala Soft, a Red Hat Advanced Business Partner, the business has created a scalable, integrated, microservices-based environment based on Red Hat OpenShift and Red Hat AMQ. The platform means A1 is faster to market, faster to scale, and more efficient in the way it delivers its digital strategy.

Software

Red Hat® OpenShift®
Container Platform

Red Hat OpenShift
Container Storage

Red Hat AMQ



Telecommunications

4,000 employees

Benefits

- Introduced digital self-service to improve customer experience
- Reduced transaction processing time and improved scalability to support growing customer base
- Created foundation for future cloud adoption

“The new self-service features on our digital channels put us at the front of Bulgaria’s telecommunications industry.”

Borislav Simeonov

Senior IT and Digital Transformation Director
A1 Bulgaria



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Borislav Simeonov
Senior IT and Digital
Transformation Director
A1 Bulgaria

Adding customer self-service to increase digital adoption

A1 Bulgaria (formerly Mobitel), a member of A1 Group, is one of the country’s leading telecommunications and digital services provider. To better serve its more than 4.5 million customers in the digital age, A1 Bulgaria sought to update its go-to-market strategy.

A key focus of this strategic shift was improving its digital service experience for customers to win new, younger customers and increase sales through digital channels, including the service provider’s website and mobile application. Though A1 leads the Bulgarian telecommunications market in terms of digital adoption, just 5% of its customers use digital channels to access and manage their services.

“We want to improve the digital experience for our customers and let them self-serve through our digital channels,” said Borislav Simeonov, Senior IT and Digital Transformation Director at A1 Bulgaria. “But for that to happen, we needed to modernize with a less manual, more coordinated IT approach. We also needed shorter delivery times for new services.”

To achieve these improvements, A1 Bulgaria sought to create a production-ready service platform that would offer responsive performance and scalability, as well as easy-to-use monitoring capabilities.

Building a microservices-based application environment

A1 Bulgaria has worked with Musala Soft, a local Red Hat partner, since 2014. It tasked Musala Soft with creating a strategy and defined a plan for modernizing the existing IT landscape. Musala Soft began by analyzing and comparing different private and public cloud solutions.

Together with Red Hat architects, Musala Soft was able to present the best approach for building a modern microservice-based architecture developed on top of the Red Hat OpenShift Container Platform. Indeed, after evaluating Red Hat solutions against an on-premise Platform-as-a-Service (PaaS) solution from Microsoft, A1 found many desired features were unavailable on Microsoft Azure and the hardware-inclusive pricing model would lead to higher costs.

The core of A1 Bulgaria’s Red Hat environment is Red Hat OpenShift Container Platform, a Kubernetes application platform that supports application development, deployment, and management across on-premise and cloud environments. A single OpenShift cluster supports multiple environments, including development, testing, and production.

“We chose Red Hat OpenShift because it’s easy to use and flexible. We can use it to customize a logical layer on top of our infrastructure. Additionally, its pipeline automation capabilities help us connect everything related to continuous delivery, including automated testing,” said Simeonov.

Musala Soft followed an incremental approach of refactoring the existing monolith solution to achieve the business objectives of the project. It gradually introduced new microservices, running them in conjunction with the existing legacy applications. This approach included an integrated content management system (CMS) and e-commerce solution, a modern single-page application front end and a DevOps process that allows for complete automation of change implementation and software delivery. Proactive monitoring allows problems to be identified before they reach end users.

A1 Bulgaria also deployed Red Hat OpenShift Container Storage. This software-defined storage is integrated with and optimized for Red Hat OpenShift Container Platform, and can store elastic log data, events, and relational and nonrelational databases. In addition, Red Hat AMQ provides real-time integration through flexible messaging based on open source community technology like Apache ActiveMQ and Apache Kafka.

After its first production deployment of more than 40 microservices – as well as continuous integration and delivery (CI/CD) tools like Jenkins, Microsoft Team Foundation Server (TFS), SonarQube, and Nexus – A1 Bulgaria is currently working on moving more new projects and microservices to its OpenShift Container Platform environment.

Improving customer experience with responsive, highly available IT

Introduced customer self-service capabilities

A1 Bulgaria redesigned the user interface and features of its website and mobile app with self-service capabilities that have improved its service experience. Customers can now easily modify their contracts, deactivate mobile roaming services, and more, on-demand and without requiring a visit to the company's physical stores.

With these changes, the company anticipates increased adoption of its digital services by existing customers compared to in-person service interactions, as well as growth in its customer base by attracting younger markets who expect a smooth, on-demand service and account experience.

"We expect to grow from our current 5% digital service adoption, and it's important that we're ready to meet new demand. Any business that fails to accommodate the market shift toward digitization will be left behind," said Simeonov. "The new self-service features on our digital channels put us at the front of Bulgaria's telecommunications industry."

Gained reliable scalability to accommodate shifting demand

With its microservices-based environment running on OpenShift Container Platform, A1 Bulgaria can accommodate traffic growth and rapidly changing demand without downtime for customer-facing services. For example, demand tends to peak for invoice-related transactions at the end of each month, when customer payments are due.

"Previously, a customer could have a lag of 10 seconds on a digital transaction. That delay is unacceptable," said Simeonov. "Today, with our automated and integrated architecture, we've reduced that lag to a maximum of 3 seconds. If we have any issues, it's far easier for us to trace and resolve. We're able to be much more responsive."

These performance improvements have been achieved with no additional investment in management or technical resources. "We're better able to re-use existing infrastructure resources, with no additional changes to backend systems," explained Simeonov.

Created foundation for cloud

A1 Bulgaria's parent company offers cloud services to corporate customers. Adopting OpenShift Container Platform as the core platform for its digital services has helped A1 Bulgaria prepare for a gradual shift to a cloud-based environment.

“Bulgaria is a little behind more developed markets, but we recognize the scale and speed benefits cloud computing can provide,” said Simeonov. “Moving from our legacy environment to a standardized, centralized cloud won’t happen overnight, but we strongly believe Red Hat OpenShift offers an architecture that we can build on, at our own pace. It provides a smooth transition to public cloud, made up of smaller changes, rather than one big change.”

Planning for a cloud-based future

The success of its OpenShift platform is the first step in a broader IT modernization effort at A1 Bulgaria. The company plans to continue transitioning to its new environment, with 50 microservices scheduled for migration in the next few months.

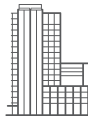
“In Bulgaria we have 100% market penetration of the traditional mobile telecom services. To keep growing, we’re going to have to expand through new digital services, such as media content, digital wallet, or payments made via users’ A1 account, or peer-to-peer transactions,” said Simeonov. “It’s important we create an efficient DevOps culture around digital services. OpenShift is the first demonstration of this. Whatever new services we create will be on OpenShift.”

About A1 Bulgaria

A1 is a leading provider of digital services and telecommunication solutions in Bulgaria. With 4,000 employees, the company delivers mobile and fixed services to over 4.5 million customers. Additionally, the company offers high-speed broadband, digital and satellite TV – including four owned sport channels: MAX Sport 1, MAX Sport 2, MAX Sport 4 – and cloud and IoT (Internet of Things) solutions. www.a1.bg/en

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