RTLZWEI modernizes its environment and builds advanced AI capabilities with Red Hat

RTLZWEI

Industry

Media

Headquarters

Grünwald, Bavaria, Germany

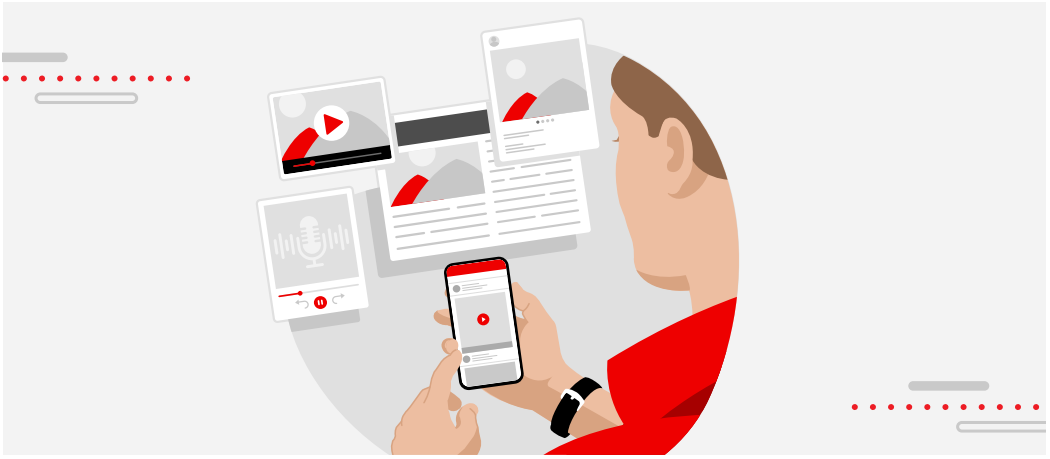
Size

150 internal employees

"AI has reached our core business. We can start moving away from simply managing media content and towards creating it. That's a total paradigm shift, and with Red Hat, we're ready for it."

Benjamin Weiss
Lead Data Scientist
RTLZWEI

RTLZWEI is a mid-sized German broadcaster and digital media company. The SME is enthusiastically exploring AI as a differentiator, giving viewers a superior experience that will help to grow its numbers and attract more advertisers. However, the company needed to modernize its core multifunctional on-premise system, BOBY, and adopt a standard platform and framework to speed up AI developments. RTLZWEI partnered with Red Hat to implement Red Hat OpenShift Platform Plus to accelerate application development and deployment. It then rolled out Red Hat OpenShift AI and worked with Red Hat Consulting to implement its use cases. The team also used Red Hat Training to develop AI skills on Red Hat OpenShift AI usage. With a unified application development and AI platform, the company is more innovative, efficient and cost effective, and can reduce time to market. It has improved its competitive edge and built a strong foundation to take video content to international markets.



Software and services

Red Hat® OpenShift® Platform Plus
Red Hat OpenShift AI
Red Hat Enterprise Linux®
Red Hat Training
Red Hat Consulting

Benefits

- Modernized application deployment and development
- Consolidated IT sprawl into one unified platform for innovation
- Accelerated sovereign AI development and built in-house skills to adopt and adapt to future technologies
- Increased competitive advantage in a rapidly evolving media landscape
- Improved IT-security posture

"We evaluated a few different container platforms before deciding on Red Hat OpenShift Platform Plus. It met all our needs, and with Red Hat OpenShift AI, we could establish a robust framework as well as simplify AI development."

Michael Bannach
Lead DevOps Engineer
Ready Computer on behalf of RTLZWEI

Simplifying a complex environment and paving the way for AI development

RTLZWEI is a German broadcaster and digital media company. It distributes content such as reality TV, news, documentaries, and films across multiple channels and streaming platforms to viewers in Germany, Austria, and Switzerland.

As the company's primary revenue stream comes from advertisers, it needs to deliver high-quality content and digital experiences to attract viewers to its channel and apps. It's using data science and AI to achieve this and to differentiate itself from the competition.

"Over the years, the monolithic culture of broadcasting has been replaced by digital platform diversity," said Benjamin Weiss, Lead Data Scientist at RTLZWEI. "That makes managing content and our digital infrastructure much more challenging."

RTLZWEI's core system, BOBY, centralizes more than 40 functions—from streaming high-quality content and managing subtitles to scheduling programs and handling advertising sales. The company also has more than 4 petabytes of archived video content, which would be very costly to store in the cloud. Its environment is therefore mostly on premise, with some AI workloads hosted on AWS.

"Being on premise gives us the flexibility we need to adapt BOBY for our specific needs and limits our exposure to hyperscaler regulations and restrictions," said Björn Stresow, OpenShift Project Lead at RTLZWEI. "Our environment is cloud-compatible and avoids vendor lock-in, and we can set and enforce our own stringent data protection and security standards."

While BOBY has been continuously upgraded and improved, it was time-consuming to update and to deploy new functionality. For example, there was no way to clone environments to perform per-app upgrades, and keeping servers in sync was challenging.

Developers and platform engineering teams shared responsibility for maintaining the environment. However, they lacked clearly defined roles, which caused confusion and slowed down issue-resolution times. RTLZWEI also needed to adapt to the evolution of AI, which it uses for personalization, AI-based content creation and redistribution, faster production, and data forecasting for advertisers.

"AI has evolved greatly since we started using it 8 years ago. We've moved from building AI solutions to designing AI-powered systems. That comes with very different requirements," said Benjamin Weiss. "Our AI platform and BOBY are separate, but it makes sense to have them on one platform to improve tasks such as content management and forecasting."

The team also wanted a platform that provided the freedom and flexibility to experiment with AI within a defined framework, while also instilling governance and best practices over AI development.

Deploying a unified containerization and AI platform

The digital media company decided to modernize its environment by migrating to an open source container and AI platform. It turned to its trusted partner, Red Hat, to implement Red Hat OpenShift Platform Plus and Red Hat OpenShift AI—together forming an enterprise-grade hybrid platform to deploy, modernize, and build applications and AI models at scale.

"Red Hat's AI training was intense, fast paced, and focused on our needs. We were even able to solve a real-life issue around deploying custom images on our cluster with support from Red Hat. This helped us to upskill and understand how to get the best from the platform."

Benjamin Weiss
Lead Data Scientist
RTLZWEI

"We've been running our servers very successfully on the Red Hat Enterprise Linux operating system for years, and we love the support we get from Red Hat," said Michael Bannach, Lead DevOps Engineer at Ready Computer on behalf of RTLZWEI. "We evaluated a few different container platforms before deciding on Red Hat OpenShift Platform Plus. It met all our needs, and with Red Hat OpenShift AI, we could establish a robust framework as well as simplify AI development."

RTLZWEI worked with Red Hat Consulting for guidance and used Red Hat Training resources and custom Red Hat training programs for cutting-edge AI use cases.

"Red Hat's AI training was intense and fast paced, and focused on our needs. We were even able to solve a real-life issue around deploying a custom model serving runtime image on our cluster with support from Red Hat," said Benjamin Weiss. "This helped us to upskill and understand how to get the best from the platform."

For example, the team learned how to build images and environments, set up AI libraries and a model registry, and deploy model servers, which are crucial for turning AI models into usable products and making them accessible to other systems in a standardized way.

The AI team also worked with Red Hat Consulting to define use cases for proofs of concept, and determine the right model servers to use. The two teams established a feedback loop to help Red Hat product development optimize the Red Hat OpenShift AI platform.

The most significant proof of concept required an integration between the NVIDIA H100 GPU and Red Hat OpenShift AI. It uses GPU video random access memory (VRAM) and Whisper on vLLM to speed up video transcription. Additional models are also required as this involves extracting insights not only from the script, but also from what's happening in every shot of the moving picture, as well as being able to discern sentiment and genre, and differentiate between the soundtrack and background noise.

"Transcription data is hugely valuable and supports several use cases," said Benjamin Weiss. "We need to be able to analyze videos and create metadata, subtitles, and a video description automatically. vLLM in Red Hat OpenShift AI speeds up making content available on different platforms and preparing it for different regions. For example, we can transcribe a video in German and translate it for subtitles or dubbing using an AI voice actor. Transcription is also important for improving accessibility, which is a legal requirement for broadcasters."

The platform hosts LLMs for speech-to-text, data science experiments, fine-tuning models, and data exploration and analysis, which supports forecasting. In the future, this could make it easier to pull forecasting metrics to present to current or prospective advertisers, which could help RTLZWEI boost its advertising revenue.

Streamlining application updates, development, and deployment in parallel

RTLZWEI's development teams are using Red Hat OpenShift Platform Plus as the foundation for parallel test and development environments, which gives them more flexibility than their previous approach.

RTLZWEI built tooling for Red Hat OpenShift Platform Plus using the native Red Hat OpenShift GitOps feature which is part of Red Hat OpenShift, allowing developers to build and integrate workflows directly into the application development platform. The team also uses Argo Events in GitLab.

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"With the Red Hat OpenShift environment, we can set up multiple environments almost instantly to develop or integrate feature sets, or production environments depending on our needs," said Torsten Rosenstiel, Systems Architect on behalf of RTLZWEI. "We've automated the generation and configuration of Red Hat OpenShift projects and can spin up a full development environment with all the necessary applications for testing in just a few clicks. When testing is completed, the environment is automatically deleted, reducing manual effort."

As part of the migration, the company has redefined the roles of two critical teams. The platform engineering team is responsible for clusters and components, and developers are responsible for application development and deployments. Where previously platform engineering personnel deployed applications, now they maintain the clusters for developers, which is simpler and makes it easier to route tickets to the right team when issues arise.

Simplifying and accelerating application modernization, data science, and AI

Modernized application deployment and development

With Red Hat OpenShift Platform Plus, RTLZWEI simplified and centralized collaboration between the infrastructure and development teams. The infrastructure team can upgrade servers and applications faster than it could previously, and because the system is decoupled, they can work in parallel with development projects.

"As a small team, we had to plan updates really carefully and couldn't implement much in parallel," said Torsten Rosenstiel. "Red Hat OpenShift Platform Plus supports new ways of working that are much faster and more effective."

Meanwhile, developers have everything they need in one platform to test and deploy new applications and features quickly using standard tools and methodologies.

"When I joined RTLZWEI, the decision to move to Red Hat OpenShift had already been made—and I'm convinced it was the right one. Kubernetes gives us the openness and flexibility to evolve," said Simon Boldinger, Vice President of Technology, Engineering and Operations at RTLZWEI. "We're still learning, but we now have a strong foundation that empowers our development and data science teams to work more independently—to experiment, learn, and innovate faster, with the right guardrails. For me, technology leadership is about creating the conditions for teams to excel—and Red Hat's support helped make that possible."

Accelerated sovereign AI development and built in-house skills

Having advanced on-premise AI development skills and Red Hat OpenShift AI are significant benefits for RTLZWEI. As well as being more cost effective, this also reduces dependency on external vendors and cloud-based AI services that may not comply with data sovereignty requirements.

The company is already seeing great results from on-premise projects. For example, by using its own data to fine-tune the AI model it uses for transcription, RTLZWEI reduced the word error rate by 33%.

"When we use Red Hat OpenShift AI we're building on our internal AI skillset," said Benjamin Weiss. "We've made huge progress on our first use cases thanks to the excellent training and support from Red Hat Consulting. As an added benefit, anything we do in-house runs on renewable energy, helping us to meet sustainability targets."

Increased competitive advantage in an evolving media landscape

By modernizing the BOBY platform and accelerating AI initiatives, RTLZWEI has the speed and agility to stay ahead of the competition—whether that's freeing up more developer time to focus on innovation, reducing time to market, or working on AI projects that will allow it to compete on the international market.

"AI has reached our core business. We can start moving away from simply managing media content and towards creating it. That's a total paradigm shift, and with Red Hat we're ready for it," said Benjamin Weiss. This will not only help RTLZWEI to reach international markets, it will be able to create more high-quality, engaging content for viewers. And the more viewers it attracts, the more appealing it will be for advertisers.

Preparing for the future on its own terms

RTLZWEI shifted to a platform approach, reducing complexity by centralizing DevOps, machine learning Ops (MLOps), and Data Ops on Red Hat OpenShift Platform Plus and Red Hat OpenShift AI.

Deployed on premise, the company can comply with national data sovereignty requirements and keep sensitive data secure while exploring AI in-house without relying on hyperscaler AI-cloud services. However, because of the solution's hybrid nature, Red Hat OpenShift AI also runs on self- and fully managed AWS.

"We now have a modern environment that's fit for purpose, reduces costs, and supports AI initiatives," said Michael Bannach.

Next, the company plans to roll out Red Hat Advanced Cluster Security for Kubernetes, which is included with Red Hat OpenShift Platform Plus. The feature embeds cloud-native applications with higher levels of security, and RTLZWEI plans to use it to automate scanning for security issues so it can quickly and proactively identify them before they cause disruption.

About RTLZWEI

RTLZWEI is a leading German language broadcaster and digital media platform. It specializes in reality TV, documentaries, news, and films, and aims to connect to viewers anytime, on any device.

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