ATPCO is an airline-owned organization at the center of a global network of airlines, data distributors, online travel agents, and other industry groups. ATPCO manages complex pricing and shopping data from more than 430 airlines in 160 countries and distributes it to various industry companies. However, air travel pricing data continues to grow rapidly, and its customers demanded greater agility and responsiveness. Working with Red Hat Consulting and Vizuri, a Red Hat Premier Partner and Application Platform Partner, ATPCO adopted a microservices- and container-based IT environment using Red Hat OpenShift Container Platform, Red Hat CloudForms, and other Red Hat management and platform solutions. With this agile, automated infrastructure, ATPCO has gained the speed and reliability to meet industry demands and transform its business.

“Our Red Hat environment will help us easily integrate new, innovative technologies into our development platform and optimize them for our internal teams and external customers.”

JOHN MURPHY
VICE PRESIDENT, TECHNOLOGY, ATPCO
SPEEDING DEVELOPMENT TO KEEP PACE WITH CUSTOMER DEMAND

ATPCO is an airline-owned organization at the center of a global network of airlines, data distributors, online travel agents, and other industry groups. ATPCO manages complex pricing and shopping data from more than 430 airlines in 160 countries and distributes it to various industry companies—for example, technology companies like Amadeus and Sabre, online travel agencies like Expedia, Google, and Kayak, and airlines’ central reservation systems. ATPCO manages nearly 4 million fare changes into the market every day.

However, the company’s customers needed faster releases to ensure they remain competitive. To speed its time to value, ATPCO needed to update its application architecture. “Our previous architecture, a monolithic application server approach representative of the last decade’s strategy, was not up to the task. The server-based approach didn’t support multiple agile teams using the same codebase in parallel. It wasn’t easy to use for quick deployment or testing,” said John Murphy, vice president of technology at ATPCO.

ATPCO sought a solution to provide faster feedback to its application development teams to speed releases. The company also wanted to automate the entire application life cycle—including hardware provisioning, application deployment, testing, and migration—and gain the flexibility to write once and deploy to any environment, whether cloud, on-premise, or hybrid.

BUILDING AN AGILE, MODERN I.T. ENVIRONMENT

After deciding to create this new, agile environment using microservices and container technology, ATPCO chose to deploy Red Hat OpenShift Container Platform as the foundation of this new environment.

“There were not many options we were comfortable with,” said Murphy. “We evaluated Netflix Eureka and several Spring services, but none had the integration and robustness of OpenShift.”

Red Hat OpenShift Container Platform includes Linux and Kubernetes technologies, as well as support for microservices and containers, in a single, integrated software solution. OpenShift is optimized for continuous integration/continuous delivery (CI/CD) and multitenant deployment, with tools for rapid DevOps development, easy scaling, and complete life-cycle maintenance—all managed through a single, unified view.

“The fast, easy automation we get with OpenShift has really aided us in adopting CI/CD to improve code quality and to deliver and deploy code rapidly,” said Murphy.

ATPCO also implemented several other Red Hat software solutions as part of its new IT environment, including:

• **Red Hat Ansible Tower**, an infrastructure automation solution that offers simple, agentless IT automation to improve processes, migrate applications for better optimization, and provides a common language for organization-wide DevOps.

• **Red Hat Enterprise Linux**, the leading enterprise Linux platform, to modernize and improve efficiency through standardization and virtualization. Red Hat Enterprise Linux also helps ATPCO prepare its datacenter for an open hybrid cloud architecture.

• **Red Hat Satellite**, an infrastructure management solution to keep its Red Hat software and systems running efficiently, properly secured, and compliant with various standards.
• **Red Hat CloudForms**, a multicloud application management platform with policy-controlled, self-service environments for cloud users. CloudForms also helps ATPCO detect and respond to environment shifts by tracking events and configuration changes.

Implementation was completed seamlessly by a joint team of ATPCO staff, Red Hat Consulting, and Red Hat partner Vizuri. “At the time we didn’t have a lot of experience with these technologies, how they all fit together, and how to handle security, scaling, monitoring, or alerting,” said Murphy. “Vizuri collaborated with us on our DevOps roadmap, working with us to analyze our operating environment and changing needs, then develop a plan for incrementally, effectively adopting these technologies. By partnering with them and Red Hat Consulting, we were able execute our vision and solve any issues we encountered.”

**IMPROVING PERFORMANCE—FOR ATPCO AND ITS CUSTOMERS**

**FASTER DEVELOPMENT AND DEPLOYMENT**

Red Hat OpenShift Container Platform helps ATPCO’s development and product teams gain rapid feedback from testing teams and customers. In addition, the teams can make smaller, iterative changes using modular microservices, supported by a CI/CD approach.

Automation provided by OpenShift and Red Hat Ansible Tower minimizes the time required to launch changes to production. With a source to image build and deployment strategy, along with Jenkins integration, OpenShift made it easier to use Git repository source code to create images and automatically deploy via Jenkins pipelines. As developers check in their changes, pipelines can deploy containers immediately. Efficient management by Red Hat CloudForms and Red Hat Satellite help the company fix bugs quickly to further speed production launch times.

As a result, ATPCO’s development teams can experiment more and make changes faster to be more innovative. The company has improved its deployment cadence from infrequent, bundled changes to rolling, on-demand deployments.

These improvements also help ATPCO’s customers improve their efficiency by making changes faster in the company’s new IT environment.

“For instance, we have a system that allows airlines to change the carrier-imposed fees they add to a ticket,” said Murphy. “Our original system could not keep up with the volume of those changes. With a microservices-based approach supported by OpenShift, airlines can make those changes much more easily and quickly, greatly improving our customer satisfaction.”

**IMPROVED FLEXIBILITY AND INTEGRATION**

With Red Hat software, ATPCO is not tied to one datacenter or cloud. Using its new hybrid IT capabilities, the company can deploy applications as desired to gain cost and performance advantages—without rewriting the applications or adjusting its architecture to support different use cases. For example, containers can be used to deploy an asset in a customer datacenter if needed for cost or security reasons.

The move to a microservices architecture also gives ATPCO a quicker, more effective way to build APIs for better integration with customers. These APIs can be tailored to individual customers to help them integrate ATPCO data with their proprietary solutions and third-party partners.

As a result, customers can work with more partners and build new solutions using ATPCO data, expanding the company’s offerings from a data platform to include services that provide additional value.
ABOUT VIZURI
As the commercial division of AEM Corporation, Vizuri transforms business via creative software solutions to produce standout work in four core areas: business rules and process management, cloud enablement, enterprise integration, and microservices and containers. We are proud to offer cutting-edge tools, processes, and capabilities backed by experienced and highly trained experts. As testament, we frequently receive awards, speak at industry conferences, publish solutions and strategies, and share code with the open source community.

GREATER RELIABILITY
Using Red Hat OpenShift Container Platform and other Red Hat software to support a container- and microservices-based architecture, the company has significantly reduced production outages. Additionally, auto-scaling and rolling deployment features in OpenShift helped ATPCO’s teams deploy changes without performance degradation or outages—a key capability for internal DevOps work, as well as the organization’s customer experience.

Working closely with Red Hat Consulting and Vizuri also helps ATPCO quickly resolve any issues that might affect its customers and their work.

“The reliability of our systems directly affects our airline customers’ overall revenue, especially if anything breaks or slows performance,” Murphy said. “Ensuring our processes are reliable for everyone is a huge win.”

FINDING NEW OPPORTUNITIES FOR INNOVATION
With the success of its initial Red Hat deployment, ATPCO is now positioned for success in its ongoing digital transformation journey. The company plans to explore new technologies, such as machine learning and artificial intelligence (AI), to continue improving its processes and customer-facing services.

“Our Red Hat environment will help us easily integrate new, innovative technologies into our development platform and optimize them for our internal teams and customers,” Murphy said.

ABOUT ATPCO
Uniquely positioned at the center of the airline distribution ecosystem, ATPCO enables seamless management of the airfare data that makes the entire industry run more efficiently. It holds more than 170 million fares for 430 airlines in 160 countries and manages almost 4 million fare changes every day. Because ATPCO is owned by airlines, it’s a neutral, trusted partner for airlines with travel agencies, search engines, global distribution systems, governments, and many other industry partners. Every day, these organizations rely on ATPCO’s thought leadership and its portfolio of technology and data solutions to help millions of travelers get where they need to go.

www.atpco.net

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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