Elo Serviços S.A., a Brazilian payment card company, has grown rapidly since its foundation. However, the market faces increasing competition from innovative financial technology (fintech) startups. To stay competitive, Elo needed an agile, efficient IT environment that would simplify management and speed time to market. With enterprise open source software from Red Hat—such as Red Hat OpenShift Container Platform and Red Hat Ansible Tower—Elo can deploy, manage, and update its customer service and applications faster to stay ahead of traditional and fintech competition.

**FINANCIAL SERVICES**

- **115 EMPLOYEES**
- **115 MILLION CARDS IN CIRCULATION**

**BENEFITS**

- Reduced service time to market by speeding server deployment from 45 days to 1-2 days
- Simplified management with greater automation
- Enhanced compliance and security, including PCI-DSS certification
- Gained access to expert guidance

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**ELO PROVIDES ON-DEMAND INFRASTRUCTURE WITH RED HAT**

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“With Red Hat OpenShift, we can plan and complete a proof of concept in 1-2 weeks, then launch what we’ve developed into production faster to stay ahead of the competition.”

ANDERSON AGAPITO
I.T. INFRASTRUCTURE MANAGER, ELO
STAYING COMPETITIVE IN A RAPIDLY GROWING MARKET

Elo Serviços S.A., a Brazilian credit card company, was founded in 2011 as a joint venture between three of the country’s leading banks: Banco do Brasil, Bradesco, and Caixa Econômica Federal. At the end of 2017, Elo held a 12% market share.

Elo focuses on maintaining a startup-like approach to business. As part of this approach, the company needs an IT infrastructure that is agile and scalable to meet constantly changing market demands and stay competitive.

“We have to move faster than traditional banks, and there’s also new competition from fintech start-ups,” said Anderson Agapito, IT infrastructure manager at Elo. “So time to market for new products, services, or promotions is crucial. IT cannot be a stumbling block.”

Elo sought to partner with a technology vendor to find a new platform for quickly developing and deploying applications using virtual machines (VMs). The company also sought to create application programming interfaces (APIs) to better connect its services with its three parent banks, other payment platforms, and e-commerce sites to further speed and streamline work.

“We want to develop a collaborative, API-based environment for our partners, including fintech companies,” said Agapito. “This change will best position us to influence the market and compete, compared to the isolated way that some traditional financial institutions operate. We wanted to start fresh from an IT perspective, with new technologies and a new partner.”

DEPLOYING AGILE ENTERPRISE I.T. SOLUTIONS

To gain these new capabilities using an open source solution, Elo decided to partner with Red Hat. “We’re fans of open source and don’t want to be locked into one technology or vendor,” said Agapito. “As a result, we found that Red Hat is the ideal partner.”

With assistance from a Red Hat Technical Account Manager (TAM), the company deployed several enterprise technologies from Red Hat, including:

• **Red Hat Enterprise Linux**, a stable, proven operating system foundation for launching new applications, standardizing virtual environments, and supporting hybrid cloud computing.

• **Red Hat OpenShift Container Platform**, a solution that integrates Linux containers, Kubernetes, and other container technologies to support application development and deployment in public or private clouds.

• **Red Hat Ansible Tower**, a simple IT automation engine that provides cloud provisioning, configuration, deployment, and orchestration capabilities. Ansible Tower also provides a visual management dashboard for role-based access control, job scheduling, and inventory management.

• **Red Hat Satellite**, a system management solution that makes Red Hat infrastructure easier to deploy, scale, and manage. This solution helps users provision, configure, and update systems to ensure they are running efficiently and in compliance with standards.

• **Red Hat Gluster Storage**, scale-out file storage ideal for cloud environments. This storage platform helps enterprises easily manage and secure big, unstructured, and semi-structured data.

Elo worked with its Red Hat TAM, as well as a sales architect and Red Hat Consulting, to complete a phased deployment of these new Red Hat solutions. Beginning with Red Hat Enterprise Linux, deployment times ranged from four days to two weeks.
IMPROVING PRODUCTIVITY TO STAY INNOVATIVE
FASTER TIME TO MARKET FOR NEW SERVICES

With its new Red Hat environment, particularly Ansible Tower and OpenShift Container Platform, Elo can use automation to speed provisioning and other IT processes. “Previously, it took us up to 45 days to deploy a server,” said Agapito. “With Red Hat Ansible Tower, the process takes just one or two days.”

Migrating its legacy portal applications, used for communication and service integration, to microservices helps the company quickly scale as needed, with no downtime for new deployments and fewer production environment errors that require time to resolve.

By decreasing development and deployment time, Elo can more quickly create and launch new promotions and services—for example, a Java™ API bot and a new portal of microservices-based offerings, including new APIs delivered using Node.js.

“Greater agility helps us differentiate our business from other payment card brands,” said Agapito. “With Red Hat OpenShift, we can plan and complete a proof of concept in 1-2 weeks, then launch what we’ve developed into production faster to stay ahead of the competition. Even developers who had no previous experience with the platform or other container platforms noticed how easy it was to build code. They create the code, test it, and then submit it for development, testing, or production. We can see the change in the team’s agility and efficiency.”

SIMPLIFIED MANAGEMENT AND INTEGRATION

Red Hat’s enterprise open source software helps Elo more easily manage its IT resources. With its RESTful API and command-line interface (CLI), Ansible Tower is easily embedded into Elo’s existing tools and processes. As a result, Elo’s small IT team can easily manage the company’s IT infrastructure—including deployment, configuration, and orchestration processes.

Better integration between internal systems and resources using containers and a foundation of Red Hat Enterprise Linux will also help the company prepare for hybrid cloud computing.

“Using Red Hat Enterprise Linux was essential to create an automated, easily controlled infrastructure,” said Agapito. “You can’t move to hybrid cloud without having high availability and connected environments, and Red Hat provides those benefits.”

Elo can also better integrate with partners to offer a more comprehensive service ecosystem. The company has consolidated this ecosystem—originally based on other Linux platforms and Microsoft Windows—onto Red Hat Enterprise Linux. The company has used containers to develop native open source APIs and make them available to developers of payment method applications. As a result, partners across Elo’s three banks can use APIs to interact directly with Elo and implement services using its API model.

As a result of these improvements, Elo can make the most of its Red Hat investment. “Ninety-five percent of our environment is Red Hat. It’s vital we maximize its use,” said Agapito.

ENHANCED SECURITY

Improved management with Ansible Tower helps Elo gain insight into IT security to protect customer and company data from threats and errors and meet compliance requirements. For example, with security audit reports, role-based access, and server auditing provided by Red Hat Satellite—as well as guidance for using SELinux (Security-Enhanced Linux)–Elo has now achieved Payment Card Industry Data Security Standard (PCI-DSS) certification.
“As a business holding sensitive financial data, compliance is everything,” said Agapito. “Automation with Ansible removes human error, helping us comply with regulations and protect our corporate reputation.”

EXPERT GUIDANCE AND INSIGHT
To ensure successful deployment and operation of its new Red Hat environment, Elo’s IT team worked closely with a Red Hat Technical Account Manager (TAM). This expert provides technical guidance, insight into the Red Hat product roadmap, support for scheduled updates, and direct troubleshooting assistance.

“As a new entrant to the payment card market, we can’t afford downtime,” said Agapito. “With our Red Hat TAM, we can mitigate issues before they arise and solve problems when they do occur.”

As a result, Elo can ensure its Red Hat environment meets current IT and business needs while gaining insight into new, innovative technology that could further enhance its capabilities.

EXPANDING MARKET PRESENCE
After its initial success with Red Hat’s enterprise open source software, Elo plans to evaluate using Red Hat OpenStack® Platform with Red Hat Ceph Storage to create a platform for scoring and reviewing credit card transactions for customers.

In addition, Elo plans to use its Red Hat environment to support its goal of expanding internationally and continuing to find new opportunities to innovations in the payment card market, such as partnering with new e-commerce sites and mobile application vendors.

“Competition in this market is aggressive,” said Agapito. “New entrants can break through quickly. We want to be quick to spot and act on opportunities. With Red Hat, we’re able to move fast.”

ABOUT ELO
Elo Serviços S.A is a Brazilian credit and debit card brand, founded in 2011. The business was created as a joint venture by the three leading Brazilian banks, Banco do Brasil, Bradesco and Caixa Econômica Federal. Elo has a 12% market share, with 115 million cards in circulation.

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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