Castile–La Mancha transforms IT approach to deliver digital services to citizens with Red Hat OpenShift

To offer digital services to its 2 million citizens, the Regional Government of Castile–La Mancha needed to change its IT approach and adopt more efficient, microservices-based infrastructure. By creating a central, automated environment for development and production operations, based on Red Hat OpenShift and supported by a DevOps approach, Castile–La Mancha has reduced development and delivery time for more personalized, digital services.

“Our electronic administration tools are working perfectly. They’re being used by thousands of our citizens. ... All of our new services will be designed following the principles of multichannel accessibility and mobility supported by our Red Hat infrastructure.”

Juan Pedro de Ruz
Head of Information and Communications Technology,
Regional Government Of Castile–La Mancha

Government
2 million citizens
60,000 employees

Benefits
• Established stable foundation to support more personalized digital services
• Improved time to market with efficient, self-service development and DevOps
• Enhanced security with supported, enterprise open source software from Red Hat
Creating digital government services for one of Spain’s largest regions

Castile–La Mancha is the third largest region in Spain, covering an area of almost 80,000 square kilometers. More than 2 million citizens and 919 municipalities occupy the area, managed by a regional government. To improve its services, Castile–La Mancha’s Department of Digital Government sought to adopt more agile development approaches and deliver through digital channels—without interrupting public-facing services.

“We want to be faster to create and implement new services while also keeping services available for our staff and the public,” said Juan Pedro de Ruz, Head of the Information and Communications Technology at the Regional Government of Castile–La Mancha.

However, the department’s legacy IT environment lacked the responsiveness and flexibility to support modernization efforts. Management processes were slow, with long delays for handoffs between teams and tasks.

To solve these challenges and create a path to digital services, Castile–La Mancha sought to establish an end-to-end automation approach, supported by an efficient, microservices-based IT platform.

Building an integrated container platform with enterprise open source solutions from Red Hat

The department evaluated several possible solutions. An IBM-based Kubernetes cluster proved too expensive due to the cost of staff training and also prompted concerns about future scalability. VMware vSphere Integrated Containers and Docker Enterprise Edition (EE) both lacked the maturity needed for production government use. Instead, Castile–La Mancha chose to deploy Red Hat OpenShift Container Platform due to positive market analysis and a series of successful proofs of concept (POCs).

Part of Red Hat Cloud Suite, Red Hat OpenShift Container Platform is a Kubernetes-based application platform that supports more efficient development, deployment, and management across cloud and on-premise infrastructure. Red Hat Cloud Suite offers a common interface and technology for development, operations, IT administrators, and lines of business. Castile–La Mancha uses this solution to support its Platform-as-a-Service (PaaS) architecture and applications.

Castile–La Mancha’s adoption of Red Hat software was managed by Dominion Digital, a local Red Hat partner, working with Red Hat Consulting and a Red Hat architect. Dominion now provides ongoing support and maintenance.

This container- and microservices-based infrastructure now supports a range of essential digital government systems, including the organization’s central electronic archive, Gitlab development environment, and corporate chat functions. The department also uses OpenShift to run its telematic data processing and electronic notification system. Additionally, the platform hosts many of Castile–La Mancha’s more than 1,000 digital citizen-facing services, such as bill payment and permit applications.
Delivering customized services faster with consistent yet responsive development

Improved personalization of digital services

With a centralized infrastructure supporting both its back-end development environments and public-facing services, Castile-La Mancha can more quickly bring customized services to a wider range of citizens. These services include digital notifications and financial grants for transportation, housing, and other needs. Once launched, these services can be personalized to meet the needs of each citizen based on requirements, legislative changes, and other factors.

“We want to bring government services to everyone who lives in the region, regardless of their location. We want digital to be the preferred channel and to proactively provide customized services for individuals,” said Ruz. “With a unified, consistent foundation built on OpenShift, we know we have what we need to focus on innovative, personalized services.”

Improved efficiency and time to market with self-service DevOps approach

Previously, Castile-La Mancha’s development team had to request production provisioning resources from its IT operations team, causing delays and friction between the two isolated teams. With separate teams and processes, updating existing applications took around 60 days.

With the adoption of a DevOps approach, Castile-La Mancha’s projects are collaborative, cross-team efforts that include all teams, from infrastructure, development, and operations to user support. Additionally, the department has adopted self-service development capabilities, supported by Red Hat OpenShift.

As a result, the department can develop and deliver new services and features—and resolve any issues—faster.

“With a more agile self-service approach, everyone and everything we need is in one place. Our developers have new tools and resources to be involved throughout a project. If something isn’t working or performing well, they can correct and redeploy it quickly,” said Ruz.

Enhanced security with supported enterprise software

Working with Red Hat and Dominion Digital during deployment of its OpenShift environment helped Castile-La Mancha more easily troubleshoot the new technology and become familiar with it with less risk.

“Before, when something didn’t work well, we didn’t know if the cause was an application failure or a malfunction of the underlying infrastructure,” said Ruz. “After gaining experience in setting up the preproduction environment, working with our partners, the production deployment was done in just 3 months.”

Since deployment, using enterprise open source software has helped Castile-La Mancha enhance its IT security by simplifying detection, resolution, and tracking errors, bugs, or other issues. Additionally, using certified container images from Red Hat helps the department ensure high-quality code for its OpenShift Container Platform environment.

“Working with supported, enterprise technology from Red Hat has helped us improve reliability and reduced the time and resources we need for maintenance and security analysis,” said Ruz. “Red Hat’s expert support and long-term technology support life cycles give us a greater sense of confidence.”
Continuing focus on agility and openness

Castile–La Mancha is now planning to implement single sign-on (SSO) technology from Red Hat to provide each employee and citizen with access to Red Hat-based services through a single set of credentials. The department also plans to deploy several new services to the platform, including educational management and corporate social care.

The regional government is also considering adding Red Hat 3scale API Management and Red Hat Process Automation to its IT environment to better manage its infrastructure.

“Our electronic administration tools are working perfectly,” Ruz said. “They’re being used by thousands of our citizens. We’re making steady progress in the use of this advanced IT model, and we plan to continue seeking new ways to support higher performance, agility, and openness on the platform. All of our new services will be designed following the principles of multichannel accessibility and mobility supported by our Red Hat infrastructure.”

About the Regional Government Of Castile–La Mancha

The Regional Government of Castile–La Mancha oversees the autonomous community of Castile–La Mancha, Spain, as set out in the Autonomous Statute published in the Official State Gazette on August 16, 1982. Castile–La Mancha is located in the heart of the Iberian Peninsula and covers an area of around 80,000 square kilometers, divided into five provinces: Albacete, Ciudad Real, Cuenca, Guadalajara, and Toledo. It is home to more than 2 million people.