València City Council speeds up process and production of new service

AJUNTAMENT DE VALÈNCIA

València City Council is undergoing a digital transformation to become one of the best-valued cities in Spain in paperless e-government and smart city management. The health crisis caused by COVID-19 accelerated this process, ensuring administrative and service activity could continue without interruption and the Council could continue to serve citizens. Valencia City Council needed to speed up development processes and the production of new services and migrate existing applications to new platforms. Red Hat's experience and its product innovation and efficiency convinced València City Council that it was the right choice for the project.

Valencia, Spain ●

Headquarters

Government

Size

6,000 civil servants and associates

Benefits

▶ Saved 4,000 department work hours through optimized automation

▶ Implemented agile methodologies to accelerate project development

▶ Automated 60% of more than 50 departmental applications to improve management and proximity to citizens

▶ Reduced CO_2 emissions by almost 5 metric tons and associated costs

"We're very satisfied with Red Hat. It has helped us to grow, learn, and change our way of working. This means we can improve the services we offer and ultimately deliver to the city."

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Francisco Javier Martínez Cervera
Head of SerTIC Systems Office
València City Council

Serving citizens electronically

With more than 800,000 residents and 1.5 million people in its metropolitan area, València is the third most populated city and metropolitan area in Spain, after Madrid and Barcelona.

In 2014, València City Council launched a strategy of digital transformation, with the aim of becoming a leader in paperless e-government and smart city management. The process was accelerated and consolidated by the start of the COVID-19 pandemic, allowing the Council to continue its activity and deliver services without serious problems.

> "With Red Hat's support, we've implemented development capacities on a self-service basis. All the necessary tools and resources are in one place, and our developers can be involved in the projects from beginning to end."
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> **Vicent Niclòs**
> DevOps Architect
> Information and Communication
> Technologies Service
> València City Council

The Council is working to ensure that the digital channel will be citizens' and companies' preferred means of contacting the administration. Among the many initiatives launched in recent years to improve public service are the Electronic Office, which allows over 95% of processes to be carried out online and reduces processing times; the Smart City strategy, which works to achieve a city project developed by and for citizens; and València's ISO 37120 Certification, which indicates its commitment to sustainable development in cities. In 2020, two out of three instances presented to the city council were submitted through the Electronic Office.

Other projects include the Transparency and Open Data portal, which makes information from the Council available to citizens, and the AppValència app or the València al Minut (Valencia in a Minute) portal, which offers local and real-time information.

Searching for greater efficiency

València City Council's Information and Communication Technologies Service (SerTIC) wanted to expedite the launch of the design, dimensioning, and implementation of new services or the update of existing ones so they could remain available to the public servants who manage them and the citizens who use them.

Speed is also important when offering high-demand services in campaigns for aid and grant requests, such as those launched due to the COVID-19 pandemic, or with European recovery funds as instruments for aiding economic recovery and regeneration.

"We started to look at how we could be more efficient and launch solutions more quickly. Previously, SerTIC's development team had to ask the Systems team for production supply resources, which often caused delays and friction between the two departments," said Francisco Javier Martínez Cervera, Head of the SerTIC Systems Office, València City Council. "With the siloed teams and processes, updating the applications we deployed could take up to 60 days. These slow, manual processes consumed a lot of time and resources."

SerTIC started to analyze the possibility of using a tool to orchestrate and automate deployment and maintenance processes. "We didn't have any previous experience with Red Hat; we had some experience in VMware vSphere containers, but we weren't convinced that they met our needs," said Martínez. "That was how we started to analyze the different market offerings and, after carrying out a proof of concept, we made the decision to work with Red Hat OpenShift."

During the proof of concept, Martínez and his team were able to verify the solution's maturity and note the numerous positive references on the market. "We soon started working and, after receiving the necessary training, we already had the first applications up and running in just two months," said Martínez.

Developing an effective infrastructure

Saved 4,000 department work hours through optimized automation

The launch of Red Hat OpenShift has allowed València City Council to develop orchestration and automation tools for app deployment and maintenance. Its various software development teams now have a centralized environment for automation. SerTIC can also share guides and workflows between teams, keeping applications or infrastructures separate when necessary.

"By optimizing automation, we've increased productivity compared with previous years," said Martínez. "We've saved more than 4,000 department work hours that were previously tied up in repetitive IT administration tasks and that can now be used on more strategic and rewarding projects."

Red Hat OpenShift provides SerTIC with a centralized infrastructure, which supports its back-end development environments, as well as services geared towards the Council's different departments. As a result, the Council can offer personalized services to meet the needs of more varied and specific citizen groups quickly and effectively.

Implemented agile methodologies to accelerate project development

The implementation of Red Hat OpenShift has also facilitated the adoption of DevOps methodology at València City Council.

"From development to operation, initiatives are now interdisciplinary and collaborative, involving all teams from infrastructure to user support," said Vicent Niclòs, DevOps Architect, Information and Communication Technologies Service, València City Council. "We've implemented development capacities on a self-service basis. All the necessary tools and resources are in one place, and our developers can be involved in the projects from beginning to end. If something doesn't work or perform as it should, they can correct it and relaunch the system without wasting time."

As a result, the development and implementation of new services and features at the Council have been accelerated, and problems are resolved much more quickly.

Automated 60% of more than 50 departmental applications to improve management and proximity to citizens

In the initial phase of implementation, SerTIC automated departmental applications used by specific groups of public employees. "Of more than 50 departmental applications, we've already automated 60%," said Martínez. "This has improved the management carried out by public employees and had an immediate impact on citizens. We expect to be able to automate the remaining 40% in just two months."

In the second phase, SerTIC will automate corporate applications used by many public employees. One of the most important of these is the Integrated E-government Platform, which expedites the processing of documents and increases the efficiency of municipal services provided by the Municipal Electronic Office. With Red Hat OpenShift whole processes can now be carried out electronically with just an electronic signature certificate or electronic National Identity Document (DNI), with no noticeable differences from doing so in person.

"In this way, we will be able to automate the necessary changes that are continually being made when requirements, legislation, or other factors change," said Martínez.

Reduced CO_2 emissions by almost five million metric tons and associated costs

The benefits that Red Hat OpenShift has provided to València City Council go beyond improved flexibility, simplicity, and speed in developing new services or improving existing ones, and greater team productivity. They also support the Council's sustainability policies to enable significant savings in server purchases, energy consumption, and CO_2 emissions. The use of Red Hat OpenShift has enabled server resizing and a drastic reduction in the ratio of applications/servers; previously, they had 23 applications on 12 servers; now, they have 30 applications on six servers with the capacity to add 20 more without increasing the server size.

"In 2022, SerTIC reduced the number of servers used by 37.5% compared to 2021, a significant saving given that we've made provision for 2023 to face the needs of remote working, which weren't as important previously," said Martínez. "In just one year, we've managed to cut our server energy consumption by over 10 million watts and our refrigeration costs by another 15 million watts. It's also reducing our CO_2 emissions by almost five million metric tons."

Delivering benefits to the public

Red Hat OpenShift will allow València City Council to move ahead with the digitalization of services used by citizens through the Municipal Electronic Office, the platform through which Valèncians can access council information, services, and electronic processes, as well as other Council-dependent offices and management services.

"In the next few months, we'll be able to bring citizens those high-demand services that the Council is facilitating, such as aid and grant offers, which happen periodically," said Martínez. "This will have an immediate and noticeable impact, especially in periods of high demand. Service quality will improve as applications will be able to use the auto-scaling provided by Red Hat OpenShift to operate continuously, even if there is an avalanche of requests, which can happen from time to time."

In addition to this, València City Council now has a platform that allows its teams to launch new applications simply and quickly, providing the necessary proof of concept to enable it to always serve citizens. "We're very satisfied with Red Hat. It has helped us to grow, learn, and change our way of working. This means we can improve the services we offer and ultimately deliver to the city." said Martínez.

About València City Council

València City Council is responsible for the government and administration of the city of València, the capital of the Valèncian Community. Founded in 138 BC, València has more than 800,000 residents and 1.5 million people in its metropolitan area and is the third most populated city and metropolitan area in Spain, after Madrid and Barcelona.

València's economy is now centered around services, with 84% of the working population employed in this sector; however, the city maintains an important industrial base and significant agricultural activity. València is also establishing itself as a technological hub through the development of new talent and technologies.

About Red Hat Innovators in the Open

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