

Workstation virtualization improves the quality of primary healthcare in Castile and León

Citrix powers digital transformation with its flexible, scalable and robust solution

The Castile and León Regional Health Board – better known by the acronym SACYL, manages public healthcare for the Spanish autonomous community of Castile and León. Spread across nine provinces, Castile and León is Spain's largest autonomous community, with the sixth highest population.

The population density of Castile and León is extremely low: 2,002 of its 2,248 municipalities have less than 1,000 residents. Primary healthcare is delivered through 247 health centers and over 3,600 local surgeries, many in rural communities that present significant challenges when it comes to communications. The health board also has 14 hospitals, primarily in the main towns and cities. These services are provided by a workforce of over 34,000 qualified workers.

Changes in clinical practice, new healthcare management models and – above all – the expectations and demands of the public mean the care model needs to change. An electronic prescription service has become indispensable, allowing doctors to prescribe all medication electronically and have an up-to-date view of all treatment. The digital health record is another key service the public is keen to see implemented. Digital records ensure members of the public and doctors have access to key clinical documentation for the healthcare of individual patients.

These developments present a major challenge, which can only be addressed by using technology to support the work of healthcare staff, making the system more efficient without placing additional demands on public spending.

The low population density and fragmented nature of rural communities creates numerous challenges, including a lack of staff and equipment at primary healthcare centers, communications issues, obsolete and non-standard IT equipment, the time taken to resolve incidents or carry out upgrades and the cost of traveling to remote sites.



Industry
Healthcare

Location
Spain

Citrix products

- [Citrix Virtual Apps and Desktops](#)
- [Citrix Customer Success Services Priority](#)

Key Benefits

- Minimum service interruptions and maximum availability of systems
- Quick and easy incorporation of new applications and flexible updates
- Guaranteed access and security of patient data

Using virtual environments to improve the service provided to the public regardless of location

“With the previous system, each health center and surgery kept separate patient health records. This presented a major challenge when it came to sharing information. What’s more, communications were extremely difficult at many sites,” explains Juan Carlos Peciña de Frutos, IT Service Manager of the Castile and León Regional Health Board. “There was a huge range of devices, versions and manufacturers, from PCs to printers, and that’s to say nothing about communications. Our human resources were also stretched. All of this was very challenging to manage, and limited the improvement of the service for staff and therefore for citizens.”

Peciña already had experience with Citrix from a project at the Castile and León Regional Ministry of Finance to allow the public to carry out administrative procedures with the regional treasury in more than 80 district mortgage settlement offices located throughout the community.

This prior knowledge of Citrix Workspace allowed the regional health board to provide all its health centers and local surgeries with access to all patient health records and the board’s tools, ensuring the same functionality as a health center with a broadband connection, including managing appointments and consultations, access to x-rays, clinical reports and electronic prescriptions. All this was made possible by the virtualization of workstations in the different healthcare settings.

Citrix Virtual Apps and Desktops helps the health board improve the care its patients receive, regardless of where they live – from cities to rural areas, from large to small towns – through a single access point, with the requisite security for working with personal data, regardless of whether it is accessed locally or remotely.

Citrix provides healthcare workers with access to all of the medical history management applications used by the health board from a single, centrally managed, standardized workstation, facilitating the deployment of new applications and the management and continuous updates of systems.

A secure environment

Working in a virtual environment substantially improves the protection and security of information and systems. The speed and simplicity of the process ensures systems are always up-to-date, helping to prevent security breaches. Not only does Citrix provide the regional health board with proactive security but faster recovery times also allow the organization to react quickly to any incidents.

Patient health records benefit from the protection of Citrix Machine Creation Services (MCS), a component of the Citrix Virtual Apps and Desktops solution, which plays a key role in managing images for Citrix Virtual Apps and Desktops environments. MCS ensures isolation in the event of infection by ransomware, installing a clean image on devices when they are restarted. MCS plays a fundamental role in the deployment and safety of Medora CYL, the regional health board patient record tool.

“Citrix has been the engine of the IT revolution we have experienced at the regional health board in terms of primary care.”

**Juan Carlos Peciña
IT Service Manager
Castile and León Regional
Health Board**

Continuous improvement and improved resource management

Citrix also allows the health board to continue using client/server desktop applications, which remain hugely important, despite being old technology. Retaining these applications helps the health board ensure the profitability of previous investments, freeing up money for other critical healthcare upgrades.

“Adding a new application is straightforward,” explains Peciña. “After testing the solution, it can be deployed almost instantly. We perform testing for servers or health centers, depending on the nature of the change and implementation can be done practically from one day to the next, taking advantage of the off-peak hours of the night. A recent example is the digital signature platform. The process has been fully transparent for all users.

“The learning process has been straightforward for our users. It’s as simple as clicking on a new icon on their desktop,” explains Peciña. “Users don’t see all the effort behind the scenes but reap the rewards from the huge upgrade from the previous situation. Medical workers now have access to all the information they need, anywhere in the region, whereas before, they could only access what was on their server. Castile and León is a region with high mobility. People are pleased with the improvement in the service they receive, with doctors now able to see their full records wherever they go. A good example is when the population of small towns increases during vacations. People receive care based on their full medical history.

“We’re making a big effort to bring the information to small communities where there are communication issues. In these cases, we are studying all the available options, including satellite, 4G, Wi-Fi and off-line access,” remarks Peciña.

“The Citrix CVAD solution works perfectly in all these situations, allowing access to all the information.”

With its two-factor user authentication and digital certificate, Citrix Access Gateway allows the regional health board to provide remote access to third-party devices outside the organization, including for health inspectors, medical examiners or, more recently, doctors from the military emergency unit, who have been carrying out tracing activities during the COVID-19 pandemic. In this case, they were provided with a refurbished PC with a single Citrix connection that could only connect to their application, allowing them to begin their work in just a few hours.

“It used to take three months to deploy a hotfix. We needed to visit all geographic locations in the region and relied on different companies. Now we can do this in a matter of hours, without any third parties,” explains Peciña. “The cost savings for maintenance, deployment and – above all – commissioning are huge.”

The health board is also supported by Citrix Professional Services. Through Priority, Citrix provides access to a dedicated and experienced team of experts who provide continuous advice from their central offices, helping the health board maximize the return on its investment.

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“Citrix is a highly flexible, easily scalable and user-friendly solution,” explains Peciña. “It is also extremely robust, as we saw when we reached 5,000 concurrent users.

“The pandemic has accelerated many processes. The public has realized the importance of digitalization and Citrix has allowed the regional health board to move faster. For us, Citrix is a facilitator and an enabler,” concludes Peciña. “Citrix has been the engine of the IT revolution we have experienced at the health board, above all for primary care.”

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