



CASE STUDY:

Upgrading of 400 software applications improves the user experience in the principality of Asturias



GOBIERNO DEL
PRINCIPADO DE ASTURIAS

- 3 year project
- 400 software applications
- 100 digital solution experts
- €8 million value

CHALLENGE

In 2017 the government of the Principality of Asturias awarded a contract for the upgrade of 400 back office and citizen service software applications to Ricoh Spain IT Services, as part of its project for the improvement of digitization in government bodies.

Under this project, Ricoh has engaged in the integral maintenance, incident resolution and development of the software applications of the Directorate General for Digital Strategy and Security, which is affiliated to the Regional Ministry of the Presidency of the Principality of Asturias.

From Ricoh Spain's Skills Centre in Asturias, which is Ricoh Group's European benchmark for software maintenance, the company has worked with Asturian companies on this project, which has helped keep 100

highly qualified jobs including IT engineers, project managers, analysts and software developers.

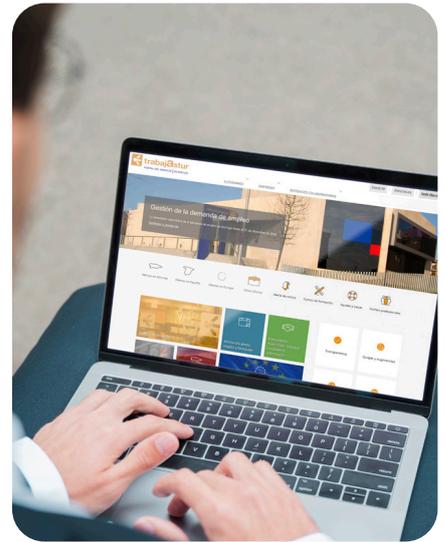
The project, which is valued at €8million, has focused on the maintenance and development of the Principality's main software applications using cutting-edge technologies such as Liferay for portals in what is currently the largest software maintenance contract in the entire autonomous region.

The project covered the following tasks:

- Technical advice and support
- Receipt of new software
- Compliance with service level agreements.
- Corrective maintenance: receipt, resolution, proper scaling, age
- Evolutionary adaptive maintenance: estimation, planning milestones, receipt of software, redeployments
- Software quality: transferability, changeability, robustness, performance, security

“We are very satisfied with the work carried out, which benefits both our employees and our citizens.”

Javier Fernández Rodríguez, General Director of the Digital Strategy and Security Department of the Principality of Asturias.



SOLUTIONS

New Framework

Ricoh has proposed a new way of building software to make it more modern, versatile and up-to-date with the latest technologies. This is a development from the old software “Principality of Asturias Framework” created over 15 years ago. The new framework has the following main characteristics:

- Standard-based. Technologically open
- Independent from any existing technology platform or framework
- It facilitates the development of applications
- It avoids the creation of monoliths
- In line with new technologies and client devices
- Integration with continuous deployment and integration mechanisms
- Improved modern and agile look and feel

Dev Ops

Ricoh has taken less than a month to successfully produce a proof of concept by applying the DevOps methodology to achieve a tailor-made solution automating, reducing and simplifying operating times for software deployments in the environment of the Principality of Asturias.

SITE Integration

In 2019 the Principality of Asturias started working on the implementation of an administrative tool called SITE to manage and process the electronic files of administrative procedures in regional government bodies. Ricoh has carried out development and integration services using the applications on the list assigned to it with the said tool. In addition, it has given technical and functional support to the managers of those applications, helping government bodies implement the electronic files of administrative procedures.

Portal Migration

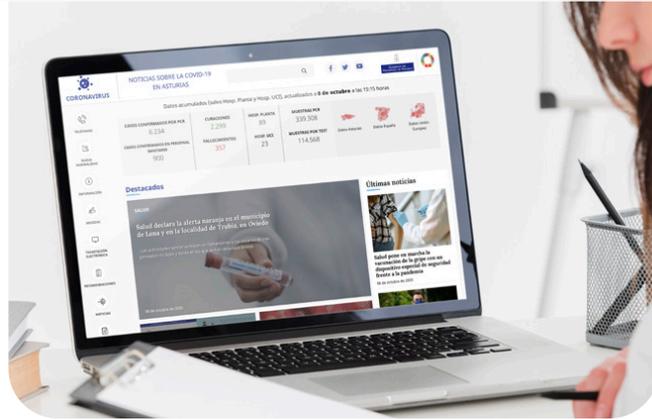
The digital services company is carrying out the technological and functional development of the portals previously operated under the Principality of Asturias’ various platforms (mainly Vignette). The destination platform used has been the portal management platform Liferay. The most relevant portals developed to date are: Asturias.es, Sede Asturias, the Asturias Public Administration Institute(IAAP) and Trabajastur.

Developments have been carried out in this context, maintaining the necessary integrations with other systems of the Asturias government, such as web services modules developed under the systems integration platform (e.g. sending of e-mails, SMS messages, time stamping), its corporate LDAP, or the Asturias Public Administration Institute (IAAP) course management platform (GESFOR).



“We have gained in productivity, service quality and security, at the same time as reducing costs and time.”

Javier Fernández Rodríguez, General Director of the Digital Strategy and Security Department of the Principality of Asturias.



Features have been developed taking into account each requirement to be met. They have thus been both updated and adapted to have a new look and feel as well as greater accessibility and a more responsive design under which compliance with new legal requirements such as the GDPR is ensured.

All these developments have been carried out taking into account client workstation requirements for both desktop web browsers and mobile devices, moving to a multi-channel and omni-channel platform.

Developing portals on Liferay has made it possible to manage pages and contents in a centralized manner. This facilitates the performance of functional users who carry out maintenance tasks and the creation of new pages and content. In addition, it simplifies the platform management and configuration tasks carried out by administrator users who can now, by establishing roles and permissions, delegate some tasks to functional users.

Education Consultancy

The Unified Educational Institution Administration System (SAUCE) is the software application used by the Regional Ministry of Education to manage and administer the education system in Asturias. As this was originally put in place over 15 years ago, it needed to be updated in order to make it more intuitive, efficient and agile.

Ricoh has made a technological improvement proposal in accordance with current software solutions in the field of education which will help:

- Solve the current software deployment problems due to which developments cannot be individually uploaded without affecting other developments
- Improve screen performance and, therefore, the user experience
- Adapt the application so it can be used with current media, browsers and mobile devices
- Decentralize the current system's functions by providing each profile with the needs required by it

- Make the application easier to maintain and distribute
- Modernize the base technology to accelerate the addition of new developments and enable new tools to be subsequently updated
- Decrease the likelihood of faults between features by using independent modules, which increases the availability of the service
- Avoid duplication and manage data properly
- Have a set of tests (e.g. unit, functional, regression and performance tests) that can be easily automated, reducing validation time and increasing the quality of deliveries
- Avoid using pirated software that infringes the GDPR as well as entailing costs for centers



Health Service Software Applications

A substantial set of applications of the Regional Ministry of Health and the Principality of Asturias Health Service (SESPA) that had not been adapted to the Directorate General's usual procedures have been included as part of the aim of the project for the maintenance of the Principality's software.

Adaptation to Version 10.1.2 of the Digital Medical History of the National Health System (HCDSNS) Released by the Ministry of Health

The version of the Digital Medical History of the National Health System (HCDSNS) that was being used in the Principality of Asturias has been upgraded to version 10.1.2 released by the Ministry of Health. This makes Asturias the second autonomous region in Spain to adapt and implement this version in a production environment.

Online Information During the COVID-19 Crisis

Ricoh Spain's technology has also helped the Principality during the Covid-19 pandemic. More specifically, the digital services company has been in charge of supporting and coordinating the adaptation of the current software applications and portals to the circumstances caused by the pandemic. This includes, among other actions, putting all the information on the coronavirus together on the website coronavirus.asturias.es, developing the SAMU 112 incident form, as well as the urgent implementation of grant handling and processing software, or the creation of electronic services/procedures so that citizens don't need to travel.

Integration Platform (BUS)

In 2018 and 2019 the Principality of Asturias put in place a new platform for the integration of systems or services to centrally manage all web services (REST or SOAP) provided by the government either for its own use or for use by other government bodies through the SARA network. This project was awarded to Telefónica, who has placed its trust in Ricoh as its technological partner due to its regional government knowledge. The tasks carried out have involved the migration, development and implementation of over 100 services on the new integration platform. In addition, a centralized application for the management of errors on the new platform has also been developed.



BENEFITS

Thanks to Ricoh Spain's help with the maintenance and development of software applications, the government of the Principality of Asturias is now a leader in the provision of quality digital services for both citizens and enterprise, improving the experience of both end users and civil servants themselves.

In 2020 the Principality renewed its contract with Ricoh Spain to continue providing maintenance and development services for the current applications. "We are very satisfied with the work that has been carried out, which benefits both our employees - by automating back office processes - and our citizens, as part of our strategy to achieve an increasingly agile government body thanks to the digitization of services. We have thus gained in productivity, service quality and security at the same time as reducing costs and time", explains Javier Fernández Rodríguez, General Director of the Digital Strategy and Security Department of the Principality of Asturias.

ABOUT RICOH

Ricoh is empowering digital workplaces using innovative technologies and services enabling individuals to work smarter. For more than 80 years, Ricoh has been driving innovation and is a leading provider of document management solutions, IT services, communication services, commercial and industrial printing, digital cameras, and industrial systems.

Headquartered in Tokyo, Ricoh Group operates in approximately 200 countries and regions. In the financial year ended March 2020, Ricoh Group had worldwide sales of 19.06 billion USD.

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