The Granada Provincial Council trusts Nutanix to transform its IT infrastructure and make it more efficient and sustainable.

About Granada Provincial Council

Industry: Public Administration
Geo: Spain
Website: https://www.dipgra.es/

Products:

- AHV Virtualization
- Intelligent Operations
- Mine Integrated Backup
- Nutanix Database Service (NDB)
- Nutanix Unified Storage (NUS)

Ready to get Hands-On?

Take a Test Drive

Thanks to Nutanix technology, the Granada Provincial Council will offer all the municipalities of the province of Granada the technical assistance they need to provide citizens with quality digital services.

Overview

The Granada Provincial Council is a public institution that provides city and town councils of the municipalities of the province of Granada with technical, economic and technological support services. Its main function is to provide them with the technical assistance they require to give citizens the best service. The particular structure of the province of Granada must be taken into account: 166 municipalities (95% of the total) have a population of fewer than 20,000 inhabitants (70% of them with less than 5,000), which makes it difficult for them to afford the necessary technical resources to deploy quality digital services. The Granada Provincial Council is responsible for assisting them so that they get the electronic administration they need, which will allow them to step away from the technical complexity and focus on the management of the municipality itself.

Key Results

Flexibility	Efficiency	Assistance

To deploy various projects with different requirements.

Simplification of infrastructure, multiplication of computing capacity, and reduction of downtime.

To deploy quality digital services in municipalities.

> **“The main benefits that the project has brought to the Granada Provincial Council include the simplification of infrastructure, performance, optimization of energy consumption, multiplication of computing capacity and reduction of downtime to practically zero.”**
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> **Miguel Pereira Martínez,**
> Chief of IT service, Granada Provincial Council

Challenge

The Granada Provincial Council used to have a coverage network that interconnected all the municipalities with its central facilities. In addition, it had its own centers spread throughout the entire province, to be closer to the municipalities when they needed to restore certain services. The goal was to facilitate management of all of them, provide services in a centralized manner and reduce travel. The network, made up of 300 nodes, integrated computing services and physical servers in the Granada Provincial Council itself with virtualized services.
In 2016, when the law requiring public administrations to provide electronic services to citizens was approved, the Granada Provincial Council realized that their capabilities would not be able to respond to all the new requirements of the municipalities. Until that moment, the council was capable of managing file services, basic internet services or email, but that was not going to be enough to offer citizens a true electronic administration or even provide service to all internal management needs.

Solution

In response to this situation, the Granada Provincial Council initiated the project to renovate its technological infrastructure. It was conceptualized in 2018. In 2019, funding was obtained and, after opening a public tender and evaluating various market options, the council decided to invest in Nutanix technology.
At that time, the Granada Provincial Council had computing services based on virtualization, physical servers and external storage, and set out to build a new service-oriented infrastructure that would offer them greater availability and recovery capacity (even less than an hour). The three main components to implement would be a general-purpose oriented virtualization cluster for the deployment of applications and file services (supporting NAS in a resilient architecture), a specific cluster of Oracle databases where all electronic administration services would be deployed, and a backup system.
When they considered the most appropriate technological components to carry it out, they decided to trust the Nutanix hyperconvergence solution *Acropolis Hypervisor* for the execution of virtual machines, *Nutanix Prism* for the centralized management of all elements, *Nutanix Mine* for backup and object storage, as well as the storage and database management solutions *Nutanix Unified Storage* (NUS) and *Nutanix Database Service* (NDB).

Results

Thanks to this technology, the Granada Provincial Council has achieved great benefits. Among the main benefits provided by the project are: simplification of infrastructure, performance, optimization of energy consumption, multiplication of computing capacity and reduction of downtime to practically zero. The management and control of unstructured data has been drastically simplified, both for file management for users and applications (NAS) and for long-term archiving and backup storage, with the S3 object storage system. In addition, a strategy has been launched to standardize and simplify the use of different database engines, such as Oracle, SQL and PostgreSQL with the Nutanix Database Management solution. Additionally, another differentiating factor was the speed at which the migration was carried out: it was practically completed it in one afternoon.
When the decision was made to opt for Nutanix solutions, there was also a will to improve the flexibility of the infrastructure of the Granada Provincial Council. On the one hand, there were the basic components of the project and, on the other hand, future developments such as the integration of hybrid/multicloud services or an initiative related to smart tourist destinations (which will be managed within a specific cluster). The implemented solution will precisely allow the deployment of different projects with varying demands.

Next Steps

The project by the Granada Provincial Council was carried out with clear future prospects. In fact, one of the initiatives under development is “Smart Province,” a smart city platform aimed at municipalities. Currently, work is being done on various sensorization projects, for example in relation to mobility, the environment or digitization of the entire water cycle. All the information generated will be consolidated in a data lake on which machine learning or big data tools will be applied to obtain accurate data and improve decision-making in each of the municipalities.

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