



AEMET

Agencia Estatal de Meteorología opts for EfficientIP to protect its DDI systems and guarantee the visibility of the network



Project Type

- Replacement of previous DHCP and DNS system with an integrated DDI (DNS, DHCP, and IPAM) and network services solution.

Main Benefits

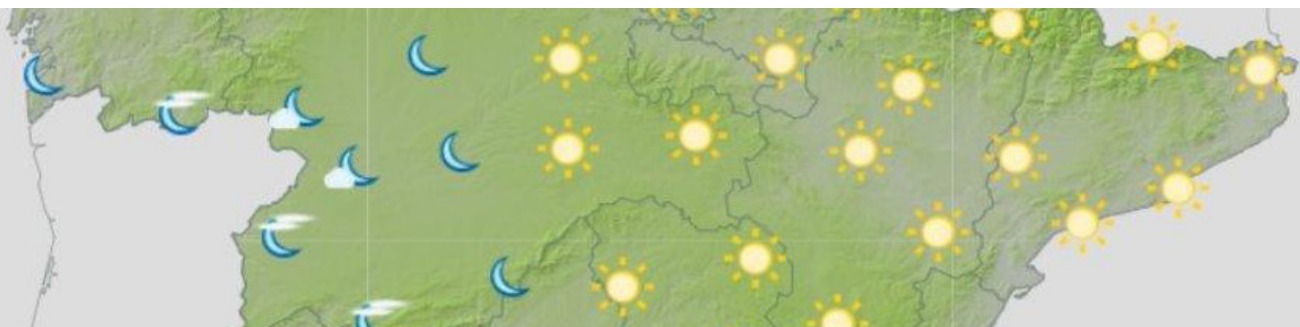
- Centralisation of network administration and services.
- Cost and labour savings.
- Notable improvement in business continuity.
- Overall control and visibility.
- Scalability of the solution.
- Integration of applications via API.

The Agencia Estatal de Meteorología (State Meteorological Agency), which reports to the Ministry for Ecological Transition and Demographic Challenge through the Secretary of State for the Environment, is tasked with providing quality meteorological services for an adequate prediction and monitoring of adverse meteorological phenomena, thus contributing to the safety of people and goods, and to the well-being and sustainable development of Spanish society.

As the National Meteorological Service and State Meteorological Authority, AEMET is responsible for planning, directing, developing, and coordinating the Agency's meteorological and climatological information, forecasting, warnings, observation, announcements, public service, dissemination and information activities.

“AEMET cannot afford any interruption of service. Our success and the satisfaction of all citizens depend to a large extent on our ability to monitor adverse weather events in the right place at the right time. EfficientIP’s solution allows us to guarantee high availability of our core network service.”

Jesús Manuel Montero Garrido - Telematics Coordinator



Its organisational structure follows a model of functional and territorial decentralisation to provide a meteorological service to meet citizens' needs, with its Central Services located in Madrid and Regional Offices in each of the Autonomous Communities. The Agency has its Head Office in Madrid, with a Regional Office in each of the Autonomous Communities.

The Project

To improve its performance, AEMET required acquisition of a centralised tool for the management of all IP addressing, which would also be robust and scalable, with a view to guaranteeing DHCP and DNS services.

Although its previous solution solved the DNS functionality, its architecture on the relays module and the IPAM module was practically obsolete. At the same time, there was no interaction between the information of the DHCP and DNS modules on the IPAM addressing database, which caused cost overruns and occasional compatibility problems.

Given the intrinsic relationship of the three DDI functionalities, and the upcoming completion of support for DNS, DHCP and IPAM services, the acquisition of an integrating proposal such as that offered by EfficientIP was considered a necessity.

The integration process with Customer Systems was carried out by GRUPO ICA Technical Office at the customer, in terms of both implementation and Solution Architecture. All of this was supported by the manufacturer's Professional Services.

“EfficientIP has been able to adapt to the specific infrastructure of the Agencia Española de Meteorología and the needs of citizens, who now benefit from high availability, performance, and streamlined administration of network services.”

Jesús Manuel Montero Garrido - Telematics Coordinator

The Selected EfficientIP Solution

Deploying two SOLIDserver™ 570-DDI devices from EfficientIP was the solution of choice as their management of all IP addressing is much more open than other options on the market and boasts a fully user-friendly management console.

The SOLIDserver™ range of devices has also been designed to offer highly scalable, secure, and robust hardware and virtual appliances for critical IPAM-DNS-DHCP-NTP- TFTP services.

A series of SOLIDserver™ 570-DDI devices consolidates DHCP services, ensuring continuity based on an active-active DHCP failover architecture and high-availability hardware platforms.

The roll-out and management of this architecture is fully automated and is performed in a comprehensive process by SmartArchitecture™, an innovation which provides a set of DNS/DHCP architecture templates that can be applied to a range of servers. Once the template is chosen (e.g. one-to-one or one-to-many DHCP failover), SmartArchitecture™ automatically configures all servers according to their role in the architecture.

Project Phases and Main Benefits

After a conclusive pilot project, where other alternatives on the market were evaluated and EfficientIP proved to be the most suitable option, the project was launched with a duration of three months due to its high criticality.

The project consisted of two phases, an initial phase of data collection to gather all the company's IP addressing information and how to create the customer addressing hierarchy, and a second phase entailing the roll-out of EfficientIP's IPAM tool and architecture for DHCP services.



According to Jesús Manuel Montero Garrido, «the technical team at ICA Sistemas y Seguridad was really responsive to our questions and was always ready to help us in a timely and swift manner. At the same time, EfficientIP has been able to adapt to the specific infrastructure of the Agencia Española de Meteorología and the needs of citizens, who now benefit from high availability, performance, and streamlined administration of network services.

One of the main benefits of this project has been the ease of management and integration of EfficientIP's IPAM tool with the third-party security applications already owned by the Agencia Española de Meteorología, which allowed for a return on investment and optimization of the work of technical personnel.

This project will also allow AEMET not only to considerably reduce IP address allocation time but also to obtain the following benefits:

- Single point of management of network services.
- Greater visibility of what is happening.
- Evolution of AEMET's DHCP service for coming years.
- Improving service reliability.
- Increasing service capacity when faced with the relentless demand for IPv4 addresses today and soon IPv6 for the coming years.

“EfficientIP's IP Address Management and DHCP service management solutions have significantly improved the way we manage network services in terms of visibility, performance, and continuity. But, more importantly, we can now issue warnings and alerts to citizens about the weather without worrying about possible system downtime», stated Telematics Coordinator Jesús Manuel Montero Garrido.

The support of EfficientIP Professional Services has been essential for ICA Sistemas y Seguridad. This has led to a roll-out of the solution without affecting the Production Service provided by the old DDI Platform. Likewise, and thanks to the oversight of the Manufacturer's Engineers, all milestones and dates for the roll-out of the new Solution were met on time and on budget.

In the Future

In principle, in the short term, there are no plans to integrate the system with «third party» tools.

AEMET is nevertheless in the process of integrating the SIEM GLORIA tool on behalf of the Administración General del Estado (AGE). This has not been ruled out, along with including the DDI Solution as a data source for providing additional security measures, as a result of the possible recommendations indicated by the aforementioned body.



As one of the world's fastest growing DDI vendors, EfficientIP helps organizations drive business efficiency through agile, secure and reliable network infrastructures. Our unified management framework for DNS-DHCP-IPAM (DDI) and network configurations ensures end-to-end visibility, consistency control and advanced automation. Additionally, our unique 360° DNS security solution protects data confidentiality and application access from anywhere at any time. Companies rely on us to help control the risks and reduce the complexity of challenges they face with modern key IT initiatives such as cloud applications, virtualization, and mobility. Institutions across a variety of industries and government sectors worldwide rely on our offerings to assure business continuity, reduce operating costs and increase the management efficiency of their network and security teams.

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