# University of Malaga

## University of Malaga renews its IP addressing plan with EfficientIP technology

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## Objectives

- Create a single, resilient DDI base in order to improve the management of all campuses

- Enable each Malaga University facility to easily manage its addressing plan

- Have a single repository of network data to improve the visibility and consistency of the IT system

## Main Benefits

- Centralization of network administration and services

- Cost and labor savings

- Facilitate IPv6 protocol implementation

- Global visibility and control

- Scalability of the solution

- Easy integration with third-party applications via APIs

The history of the Malaga University cannot be understood without Malaga: the impulse of the province on all fronts (citizens, personalities and media) has been key in the birth of this University. The process began in 1968, but it was on August 18, 1972, by decree, when the foundation of the University of Malaga was approved. The Faculty of Economics and Business Administration and the Faculty of Medicine would be the first to become part of the global university that is today the University of Malaga.

> "We verified that it met all our needs, and in addition to being very affordable, we really liked its distribution of functions and flexibility of operation"
>
> Vicente Giles Durán - Head of the Communications Service of the University of Malaga

With the aim of becoming a complete institution of the highest level, the Malaga University developed an expansion plan in terms of branches of knowledge and infrastructures. Thus, once settled in the Campus of El Ejido, it developed in the university city of Teatinos, an area that at first housed the Faculties of Medicine, Philosophy and Arts and Sciences, to gradually grow and become an increasingly complete campus in both academic offerings and university services. 50 years later, the UMA has more than 35,000 students, 59 undergraduate degrees, 9 double degrees, 74 Master's degrees and 309 research groups.

Today, the University of Malaga continues to be committed to scientific development and innovation as a way to bring progress to society as a whole.

## Project

In order to improve its performance and adapt to the growing requirements of digitalization in the classrooms, the University of Malaga, true to its principles of technological innovation, considered the acquisition of a centralized tool for the management of all IP addressing that was also robust and scalable, to ensure IPAM and DNS services. At that time, the University of Malaga was managing 28,000 IP addresses for 5,000 employees, including faculty and associated services.

Previously, the University had a centralized IPAM database with a very rudimentary custom application for IP addressing and DNS management, from which the files for BIND were generated. The project envisaged to continue using this DNS server under the EfficientIP software.

As a result, IPAM has been implemented to manage the IP ranges in service, as well as the addresses in use, and DNS, which is automatically managed from IPAM with great flexibility to deal with any changes that may arise.

At the same time, the University's technical department faced many problems on a daily basis, such as the changeover to IPv6, which forced them to reprogram everything to accommodate new AAAA records, for example. In addition, they wanted to be prepared for this protocol because for the University of Malaga, it represents the future of IP addressing.

## The EfficientIP Solution Selected

With their objectives clear on paper, the IT department of the University of Malaga analyzed different IPAM management alternatives in both the public and corporate domains. Finally, when they found that EfficientIP's solutions not only met all their requirements, but were surprised by the distribution of functions and flexibility of operation, they opted for this manufacturer over other options on the market.

"We verified that it met all our needs, and in addition to being very affordable, we really liked its distribution of functions and flexibility of operation" states Vicente Giles Durán, Head of the Communications Service of the University of Malaga.

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

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

A series of SOLIDserver™ 570-DDI appliances consolidate DHCP services, ensuring continuity based on an active-active DHCP failover architecture and highly available hardware platforms.

The deployment and management of this architecture is fully automated and is performed in a comprehensive process by SmartArchitecture™. This innovation 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

After an exchange of information and ideas, the initial equipment was deployed on on-premise hardware, and tests were carried out to import zones and addresses from the UMA database, as well as customization of templates, VLANs, etc. In less than a week we went into production and operation.

The production go-live was completed in three days with full support from the manufacturer. "After passing a series of functional tests, we abandoned the old system. In a second stage, we migrated the physical servers to virtualized equipment, with the same ease and without problems," explains Vicente Giles Durán, Head of the Communications Service at the University of Málaga.

## Main Benefits

According to the University of Malaga, the interface of EfficientIP's IPAM solutions provides great visibility of its resources, fully covering its demands.

> **"We achieved an efficient and easy management of our daily operations on DNS and the use of our IP addresses, being able to delegate tasks to less specialized people, which was impossible before."**
>
> Vicente Giles Durán - Head of the Communications Service of the University of Malaga

Finally, the University of Malaga plans to develop new projects derived from the new functionalities offered by EfficientIP technology, such as the deployment of DNSSEC in all its areas. Additionally, a more than probable integration of the DHCP service, which is currently provided in separate servers, is being considered.