



University of Grenoble Alpes

Simplifying the IT merger of its entities with DDI



Project objectives

- Create a single, resilient DDI base for the merger of the various entities
- Enable each entity to simply manage its addressing plan
- Implement a single network data repository to improve the visibility and consistency of the information system

Key benefits

- Cost of ownership reduced by about 40%
- Simplification of DNS-DHCP-IPAM management
- Improved availability and performance of the whole DDI and network infrastructure
- Configuration errors on IP addressing reduced by over 30%
- Improved information system governance through a single network repository

With almost 60,000 students, University of Grenoble Alpes is one of the main centres of higher education in France. The institution, which is spread over more than 200 buildings and hosts in addition to students, 3,000 research professors and 3,700 collaborators, was created with the merger of the Universities of Grenoble (1, 2 and 3), the Institut Polytechnique de Grenoble and the Institut d'études politiques de Grenoble in 2016.

“Before EfficientIP, we had teams that managed their addressing plans, DNS and VLANs with spreadsheets. Today, we have complete visibility and control over the entire DDI infrastructure.”

Gilles Bruno, DNS Administrator



Situation and Challenges Being Faced

In order to improve simplicity, visibility and efficiency for all entities, as well as improve the governance of the information system, the question arose of unifying and centralising the management of the DDI (DNS, DHCP, IPAM). Following the merger of its various entities with the creation of a central IT department, the University of Grenoble needed to create a platform capable of centralising and managing all its addressing plans, while ensuring the delegation of rights so that the various users could also manage their addressing parameters.

While part of the university was already using EfficientIP, the other entities had to be integrated, some of which were using Infoblox's solution, or ISC's open source DNS BIND and DHCP servers. The University also wanted to set up a single knowledge base repository for all its IP addresses and IT assets to have a clear and granular view of its network infrastructure. The challenge was to create a single, resilient and high-performance DDI base that could support and accompany the migration of all IT services of the university's various entities.

Solution Implemented

The EfficientIP solution was chosen over the Infoblox solution for its flexibility, ease of use and more advanced and granular delegation tools. The University of Grenoble then migrated its whole DDI infrastructure to the SOLIDserver solution. This first step has already made it possible to rationalise the number of servers needed to manage it. There are now 4 servers, which reduces the total cost of ownership (TCO) of the solution by over 40%.

The university then provided each of its entities with dedicated access to the central administration platform to manage their DNS, DHCP and IP addressing plan services. This means 280 technicians from the different entities can meet the needs of the various local users. According to the University of Grenoble, it is the IPAM that serves as the «Network Source of Truth» or unique network data repository. The creation of IP addresses according to the needs of each team is done via a simple and personalised interface, automating the configuration of DHCP and DNS servers.

“The integrated DDI automation and flexibility provided by EfficientIP also allows us to be more efficient in managing our DDI, while ensuring the maximum performance and availability of related services for users.”

Gilles Bruno, DNS Administrator



Main Results

Thanks to EfficientIP's delegation capabilities, the University of Grenoble provides each of its entities with a high level of autonomy in managing their IP addresses and DNS zones while maintaining a single data repository. «Before making the switch, we had teams that managed their addressing plans and VLANs with spreadsheets. Today, we have complete visibility and control over the entire DDI infrastructure,» explains Gilles Bruno, DNS Administrator at the University of Grenoble. «The integrated DDI automation and flexibility provided by EfficientIP also allows us to be more efficient in managing our DDI, while ensuring the maximum performance and availability of related services for users. We now also have a very high level of consistency between the inventory and the actual state of the infrastructure. Finally, this unification has considerably reduced the number of errors made during the configuration phases by over 30%.»

The implementation of a single data source from EfficientIP's DDI solution also benefits other IT teams at the University. The teams responsible for networks rely on it to obtain a clear and granular view of the infrastructure and thus anticipate needs and load increases.

The University of Grenoble also praises the ease of use of SOLIDserver. «During the Covid pandemic, we lacked the time to train all the technicians who were supposed to use the solution. Fortunately, they were able to quickly find their feet and be autonomous in their daily use despite having to rely on remote support,» explains Guenael Sanchez, DNS Administrator at the University of Grenoble. The University team also emphasises, «Although we rarely do it, being able to access the configuration files and keep a high visibility on the functioning of the solution itself and on the way it manages flows brings us increased peace of mind», Gilles Bruno says.

Conclusions / Future Plans

The University of Grenoble will rely on its DDI solution to support the growth of IoT within its organisation. This evolution will be accompanied by an increase in IPv6 within the University.

«Today, we have a stable, high-performance infrastructure that is more than capable of supporting the university's growth. We can also count on EfficientIP's «Professional Services» department to support us in all our new needs», concludes Gilles Bruno.



REV: C-230329

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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