General Secretary for Digital Administration Case Study

GOBIERNO DE ESPAÑA

CASE STUDY

Nlyte Software

SGAD – General Secretary for Digital Administration
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Background

SGAD is the IT arm of the Spanish Government Administration (AGE). It is responsible for data center administration across various agencies' IT departments. SGAD embarked on a 5-year study to build a strategy around the expansion, closure, and build of data centers, also evaluating the validity of the use of colocation partners.

In 2019, the General Secretary for Digital Administration [RS1] (SGAD), in collaboration with the National Police, was awarded a grant to begin a collaboration to implement and transfer its DPC to the National Police facilities. The initial proof of concept consisted of a small data center, which is expanding to 3 data centers – a Tier 4 backup, a Tier 3, and a primary 2MW with 400 racks.

SGAD was commissioned to focus on transformation through collaboration, including the implementation of a Data Center Infrastructure Manager (DCIM) tool. The

project was led by Luis Ibáñez, Head of Area Responsible for Infrastructure of the DPC belonging to the General Sub-Directorate of Exploitation. Luis and his operation team have managed the day-to-day aspects of the project. They have worked together from the selection of the solution to the implementation and daily operation.

DCIM Selection

Over the years, SGAD has used many different monitoring and DCIM solutions and has done extensive evaluation testing with all major vendors. This experience has given them an understanding of the limiting factors of these tools concerning the needs of the organization and data center operations. In preparation for the final selection the initial team:

- Established a process to collaborate with and educate peers

- Built out the operations team
- Established a checklist of all things needed, SOPS, EOPS, etc.
- Identified standardized operations and documentation
- Identified a tool to manage everything

Once the basics were established, concepts and good practices were tested. The aim was to obtain the maximum degree of representation of reality within the DCIM tools, and to what extent they solve the organizational and operational needs.

What were specific functions within Nlyte that you required?

- The correct representation of the assets, especially the data cabling, having the complete representation of the connectivity.

- The correct representation and location of ALL assets and the possibility of defining assets that are not yet in the database.

- Workflows adapt to the organization: The power of generating adaptable and flexible workflows according to the characteristics of the organization is very important, since it allows us to adapt to the degree of maturity of the organization.

Implementation and Operation
Preparation

Vendors were invited to participate in a proof of concept (POC) evaluation. It was discovered that several had satisfying components, however most fell short of delivering a complete solution. SGAD had the mandate to
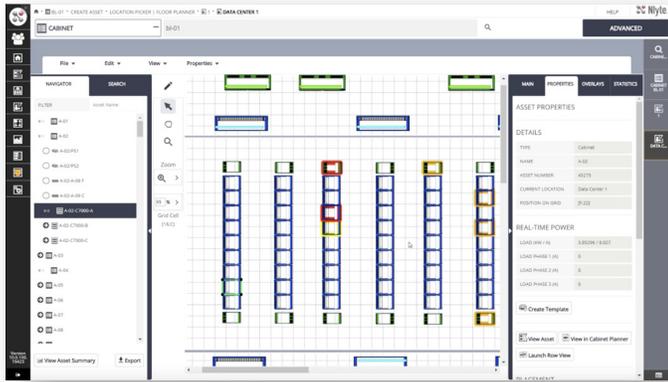
have two suppliers for redundancy, but integration testing during the POCs was proving difficult. Additionally, concerns were mounting around the challenges with future updates and a significant amount of time to feed information into two separate tools. SGAD consulted with IBM, who had chosen Nlyte as their primary DCIM solution for all of their global data centers. Nlyte had established a good reputation and was highly recommended by IBM.

Implementation Notes

SGAD implemented Nlyte Asset Optimizer as the primary asset management tool providing end-to-end asset life cycle management, capacity, and space planning, automated workflow, centralized management, reporting, and connectors into other primary IT and BMS systems. Additionally, Nlyte Energy Optimizer was deployed as the primary monitoring tool for power and cooling.

The asset management block Nlyte Asset Optimizer implementation allows the inventory management and complete definition of each of the assets that make up the data center. The solution defines the physical infrastructure, spaces within the building, racks, equipment, and general facilities (UPS, chillers, air conditioners), network cabling, computer and communication equipment, and software elements. The tool allows assets to be associated in different groups based on the functionalities, availability, and the different groups and individual departments in which the administration is divided.

Asset Manager

The monitoring block Nlyte Energy Optimizer was implemented for the existing infrastructure. One of the critical reasons the tool was chosen, was that it was not necessary to make complex software integrations to communicate between the different devices of different subsystems (electrical, cooling, environmental). Nlyte Energy Optimizer natively supports different protocols and reads the devices in a very structured way.
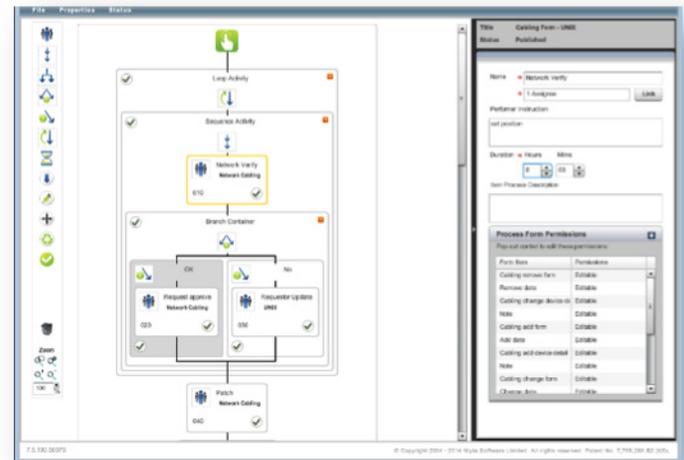
Key Highlights

- The Nlyte solution makes it possible to manage and represent all the network connectivity, from end to end. It is able to connect the complete route of the links, taking into account the physical network infrastructure implemented, with its particularities.
- The Nlyte solution allows the user to define the most representative indicators of the variables of use and state of the infrastructure. This makes it possible to know the state of the infrastructure very quickly, facilitating decision-making and speeding up day-to-day operations.

The team's ultimate objective is to define all the operation of the data center leveraging Nlyte DCIM so that any operator - systems, general services, networks, or any other department - receives perfectly defined work orders for all daily tasks. In the same way, the operators, by feeding the DCIM tool, allow a total visibility of the state of all the infrastructures and the operations carried out on them.

A standardization of processes has been necessary to carry out everything, since, in most cases, not everything is defined outside the software. To reach this virtual level of detail, it has been necessary to test concepts and good practices in solutions in each of the subsystems: architectural, electrical, cooling, communications, technical infrastructure, nomenclature and signage.

Standardized Process

What functions in Nlyte were unexpected but pleased you to see?

The possibility of displaying and managing the electrical wiring (the electrical connections) along the entire electrical path, especially the last section from the Power Distribution Unit (PDU) to the server.

Notes for the future

SGAD chose Nlyte because it met their requirements of a collaborative tool. SGAD's mandate is to provide other bodies of the National Government centralized data center services. Each organization could potentially require unique implementations and require different levels of interaction. Nlyte's DCIM solution makes it possible: from software as a service, platform as a service, infrastructure as a service and all the xxAAS (AAS: as a service) that we can imagine.

> And this does not end here... far from it: this implementation already aims at really achieving artificial intelligence and predictive modeling, because of Nlyte's Machine Learning integration with IBM's Watson IoT and other solutions that the SGAD is already evaluating.

Luis Ibanez Sanchez,
IT Manager

In 5 years, what do you think Nlyte will have done for SGAD, how will Digital Administration across the Spanish Government look?

We see DCIM as a collaborative tool.

Within the support model that the SGAD provides to other bodies of the National Government, different figures will be implemented and each of them will require a different level of interaction, and this solution makes it possible: from software as a service, platform as a service, infrastructure as a service and all the xxAAS (AAS: as a service) that we can imagine.

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About Nlyte

Since 2004 leading data center and IT professionals worldwide have used Nlyte's software solutions to manage their computing infrastructure - helping organisations automate the discovery, workflow, and reporting across the technology stack from physical, virtual, and edge to software and IoT devices. Nlyte provides solutions for Hybrid Digital Infrastructure including Data Center Infrastructure Management (DCIM), colocation management, Technology Asset Management (TAM), and machine learning. Nlyte reduces costs and risk across entire organizations. Nlyte is committed to helping optimise computing infrastructure, thus, making it easier for people to do their jobs more efficiently and improve agility.

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The world's most sophisticated IT organizations use Nlyte's comprehensive out-of-the-box ready software solutions. Nlyte's commitment to optimize asset management, making it easier for people to do their job more efficiently and improve agility across the global organization, continues to develop a loyal following of customers.