

Airbus D&S chooses Nutanix for its mission critical environments

Seamless infrastructure ensuring reliability, resilience, security and flexibility.

By combining innovation and future-proof technologies to support customers' long-term needs, the systems delivered by the Ground Systems IT Platforms Center of Competence (CoC) within Airbus Defence and Space engineering department are free from any failure. To ensure reliability, resilience, security, and flexibility, the department currently uses Nutanix technologies

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- Olivier Lagarde, Senior Technical Officer of the Ground Systems IT Platforms Center of Competence at Airbus D&S

COMPANY PROFILE

Airbus Defence and Space operates a Ground Systems IT Platforms Center of Competence (CoC) that specializes in the design of critical information systems dedicated to processing raw data from multiple data sources (Satellites, Edge devices, Aerial Systems, internet, etc.) and the provision of services to end users. These critical information systems, which are designed for both institutional clients and private companies, are used in critical business applications requiring extremely reliable and secure environments.

INDUSTRY

Aerospace

CHALLENGES

- Reduce time spent on systems integration
- Achieve greater scalability
- Improve operability

BENEFITS

- 50% less time spent on integration
- Simplified scalability
- End-to-end embedded security

SOLUTION

- Nutanix Cloud Platform
- Acropolis (AOS), Prism, AHV, Flow

According to customer needs, the system can be easily scaled up to thousands of vCPUs, with a capacity of several petabytes. These systems are based on a single infrastructure, enabling the industrialization of production. Finally, they are also designed to support the customer's needs throughout the lifetime of a satellite, i.e., between 10 and 15 years. Therefore, they must be able to scale up quickly and remain easily operable.

Background

Innovating while anticipating changes over the next ten to 15 years is no easy task, as Olivier Lagarde, Senior Technical Officer of the Ground Systems IT Platforms Center of Competence at Airbus D&S pointed out: "The choice of information technologies is complex because we need to strike a balance between meeting business needs and innovation, but also factor in the constraints of the business while [also] ensuring the durability and maturity of the technologies. This is a real challenge in view of the wide range of solutions available on the market and their rapid evolution."

Compelled to make difficult decisions, the CoC swiftly adopted the "software-defined" approach rather than traditional infrastructures. "This allows us to streamline the hardware side while increasing the flexibility of our solutions without changing the logical architecture of the IT system," said Olivier Lagarde. "As a result, we can reduce the complexity associated with managing the obsolescence of a system that requires long-term maintenance." The Engineering department sought to consolidate this approach by taking an early interest in the concept of hyperconvergence.

THE NUTANIX CHOICE

"Hyperconvergence was perfectly in line with our approach by bringing in extra scalability," he explained. "For a satellite-based project, we have a huge influx of data. Consequently, the ground systems must be able to scale up as they are deployed. At the same time, we may also need to add new services for the customer. In this context, being able to ramp up easily - without the need for multiple skills - without the need to rebuild the design, while ensuring business continuity is a key benefit."

In 2016, the R&D division launched an extensive study involving 200 tests on every solution on the market, covering performance, resilience, maintainability, and security. "When it came to making a choice, our approach was fact-based: we have been convinced by Nutanix" said Olivier Lagarde..

THE BENEFITS

Since the adoption of Nutanix, the CoC has been delighted with the significant progress made during the integration phase: "Where it took weeks, it now only takes a couple of days," said Olivier Lagarde. "Having a fluid, seamless infrastructure that is quickly up and running changes the game, especially since it factors in security with a level of protection that meets our stringent requirements. As a result, we spend less time adding layers and managing integrations by using Nutanix AOS/AHV" On average, the team cuts down the deployment time of its virtualized infrastructures by around 50%, and for instance, recently we did a 40 physical nodes grow up in only 2 days It also saves a great deal of time on problem management: "Problems are extremely rare and are resolved very quickly"



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