

## ENAIRe AND INDRA STRENGTHEN THE RESILIENCE OF THE SPANISH AIR TRAFFIC MANAGEMENT SYSTEM

- **Two large virtual centers located in Madrid and Barcelona provide flight plan data to the six control centers of the Iberian Peninsula and Balearic Islands**
- **Having two identical virtual data centers increases the security and reaction capacity in the event of failure in one of them**
- **The aim is to reach an availability near 100% for air navigation services, which are crucial for Europe**

**Madrid, March 12, 2019.-** Enaire, in collaboration with Indra, the consulting and technology company, has strengthened the resilience of the SACTA system that manages all Spanish air traffic, exponentially increasing the capacity of the Peninsula and Balearic Islands control centers to deal with contingencies.

For this reason, the company has introduced the virtual center concept promoted by the EU to build a more efficient and secure Single European Sky through the SESAR program, one of the most ambitious RDI initiatives in the world in this field.

Until now, every control center had its own data center, which managed only the information of flights under its responsibility. Now, all the data has been centralized in two large identical data centers located in Madrid and Barcelona.

Virtualization technologies and remote control positions through WAN connections, together with the speed and reliability of digital communications, have completely eliminated the need for physical control rooms for data processing.

Thus, the six large control centers that manage traffic throughout Spain, with the exception of the Canary Islands, will receive data from these two virtual centers.

In the event of failure or changes to one of the data centers, the other will act as back-up and guarantee continuity of service.

The company is now completing the work so that, in addition, the towers of the four airports with the most traffic in the country will also receive the data they need to operate directly from one of these two virtual centers.

The implementation of the two virtual centers was carried out within the framework of the eCOS project (Evolution of SACTA Operational Data Center architecture) during 2018, while the work to incorporate the towers is being conducted within the eVEREST project (Evolution of Remote SACTA TWR architecture), which will end this year.

The aim is to ensure that air traffic systems, infrastructures of critical importance, offer availability as close as possible to 100%.

The new architecture of the SACTA air traffic system will offer many other advantages besides strengthening resilience: it will allow all centers to share the same information to achieve a seamless management; it will allow the implementation of upgrades and advanced functionalities easily; it will reduce hardware, maintenance and energy consumption costs; it will facilitate the installation of equipment; and it will reduce the environmental impact.

### About Indra

Indra ([www.indracompany.com](http://www.indracompany.com)) is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers world-wide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defense markets, and a leading firm in Digital Transformation Consultancy and Information Technologies in Spain and Latin America through its affiliate Minsait. Its business model is based on a comprehensive range of proprietary products, with a high-value focus and with a high innovation component. In the 2018 financial year, Indra achieved revenue of €3.104 billion, with 43,000 employees, a local presence in 46 countries and business operations in over 140 countries.

### **About ENAIRE**

ENAIRE is the state-owned company of the Fomento Group that handles air navigation in Spain. It provides aerodrome control services at 21 airports, including those with the most traffic and, in route and approach control, through five control centers: Barcelona, Madrid, Gran Canaria, Palma and Seville.

In 2018, ENAIRE operated 2.1 million flights to and from four continents (Europe, America, Asia and Africa), transporting 300 million passengers.

ENAIRE is the fourth-largest European air traffic manager and, in a strong commitment to the Single Sky, is part of international alliances such as SESAR Joint Undertaking, SESAR Deployment Manager, A6, iTEC, CANSO and ICAO.