# Syrlinks ତ୍ର

# loT / NewSpace

SYRLINKS strengthens its leadership in space IoT by participating in the development of the first satellite constellation of the Internet of Things

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### The IoT revolution and the advent of space IoT: continuity of service everywhere, 100% of the time

Highly documented and a source of attention, the IoT is one of the most scrutinized fields of technology and in full swing in recent years, with breathtaking technological promises and new uses to change our daily lives. It sustainably transforms the fields of renewable energies, transport and logistics, the environment, agriculture, sports and leisure in general, ...

The IoT is based on a terrestrial network allowing objects to communicate with each other. When these networks are no longer accessible, for example at sea, in desert or mountainous areas or quite simply when crossing a border from one country to another, it becomes essential to ensure continuity of service that only space connectivity can provide, because it is available 100% of the time and all over the planet, at sea and on land.

## Syrlinks, pioneer of space IoT with the ARGOS NEO instrument of the ANGELS satellite

In partnership with Thales Alenia Space in Toulouse, Syrlinks has developed and supplied the ARGOS NEO payload, the heart of the ANGELS satellite launched and successfully put into orbit on December 18, 2019. ANGELS is the first satellite of the French industrial sector «nanosatellites" supported by CNES and organized around HEMERIA, specializing in the design, manufacture and assembly of small satellites.

ANGELS completes a constellation of 7 ARGOS satellites currently in orbit and which collect daily data from 40,000 beacons and connected objects. This nanosatellite is ten times lighter and consumes three times less energy than its predecessors. It is the precursor of a constellation of 25 new nanosatellites to be placed in orbit by 2022 and demonstrates the ability of Syrlinks to offer miniaturized, reliable and low-consumption radio equipment essential for the new nano-sat constellations.

# Syrlinks, end-to-end mastery of Argos technology: Ground and Edge

Syrlinks' know-how around ARGOS technology is also rooted in the ground, since Syrlinks has been developing and marketing ARGOS tracking micro-beacons for several years. These beacons are used in several fields by institutions or scientists for the monitoring of migratory birds. Also, Syrlinks has developed all the so-called «master» beacons, deployed throughout the network of CLS reception stations. These beacons allow in particular the performance monitoring (orbitography, location) of the ARGOS system and are essential for its proper functioning.

Today, Syrlinks is accelerating its development of products compatible with the current Argos constellation but also compatible with the new spatial IoT constellation Kinéis. This product, intended for the general public, will allow practitioners of extreme or outdoor sports to communicate with their loved ones and indicate their position via the Kinéis network. This beacon will also allow the hiker or adventurer to transmit distress via satellites in the event of danger or perilous situation.



© Syrlinks - Outdoor activities



© Syrlinks Argos master beacon



© Syrlinks - Argos Neo payload



© CNES - ANGELS satellite artist view

#### Syrlinks takes root in the Newspace market

Syrlinks and Thales Alenia Space are continuing their joint developments in the space IoT with the Omnispace constellation. Thales Alenia Space renews its confidence in Syrlinks by having selected it as the designer of the payloads for the first two satellites in this constellation.

After the success of ANGELS, then KINEIS, and soon Omnispace, Syrlinks continues to demonstrate its industrial capabilities in the Internet of Things and New Space market. The company is also consolidating its position as a major supplier of radiocommunication and geolocation equipment for the space market.



© Thales Alenia Space - Omnispace project artist view

The outcome of these new projects opens up new development prospects for Syrlinks thanks to the expansion of its product range and the diversification of the associated functions.

#### Some articles on the same subject...

Find out more about IoT Spatial:

- CNES, KINEIS, HEMERIA, Thales Alenia Space press release
- Thales Alenia Space Web News

#### **ABOUT SYRLINKS**

Thanks to its mastery of innovative technologies, Syrlinks designs, manufactures and markets high performance radiocommunication and geolocation equipment in the fields of space, defense, security and time-frequency. Its products are outstanding and internationally renowned for their robustness, their performance, their miniature size and their low energy consumption. Syrlinks works with prestigious clients and partners such as Airbus, Oneweb, the CNES (the French national agency for space studies), the European Space Agency (ESA), Thales Alenia Space, and Nexeya. The company, founded in 2011 near Rennes, employs around a hundred people.

For its first space contract, Syrlinks participated in 2012 in the development of the CNES Myriade Evolutions platform's radio links for Earth observation missions. The popularity of Syrlinks was also based on the Rosetta space mission, initiated by the ESA, aimed at exploring Comet Tchouri. Syrlinks team designed and manufactured the wireless communication systems connecting the Rosetta probe to the Philae robot-lander.