Syrlinks

NewSpace

Syrlinks allows OneWeb to control its satellites

Press Release

Cesson-Sévigné, March 6th, 2019. A few hours only after the first 6 satellites of its mega-constellation had been put into orbit, OneWeb was able to control them with success thanks to the equipment designed by Syrlinks. This achievement sets the French company as a leader in space radiocommunications for small satellites.

"*This success confirms the position and importance of Syrlinks to contribute to Airbus ambitions in tomorrow's markets*" declares a project manager of Airbus.

The company will produce more than **3,000 radiofrequency equipment** for the OneWeb program. It supplies two types of equipment to operate this set of micro-satellites, a transceiver t**o control the satellite** and a low noise amplifier at the input of the GPS receiver. This onboard transceiver is a true vital link. It is designed to monitor and control the satellites, and to establish communication with the Earth.

Syrlinks products integrated into OneWeb satellites

Faced technological and industrial challenges

To answer this exceptional order, Syrlinks had to design **dedicated high-performance products** and create **a brand-new industrialized production process** designed to deliver this equipment. The impact has been considerable for the development of Syrlinks. High-level people have been recruited for this occasion and new premises were built to accommodate the new production means. The company had to create a product unit equipped with very specific equipment, including a clean room.

"*The development of the Syrlinks' Ka-band communication equipment, a highly critical organ in the OneWeb satellite, required an industrialization process that is quite unprecedented in the space field. Indeed, the production rate is exceptional for this kind of product. Moreover, the level of quality and reliability to reach is very ambitious, the objective being close to high-end space products*" explains Philippe Bataille, technical manager for the OneWeb project at Syrlinks.

New horizons

Today, many manufacturers in the United-States, Europe, Asia, and Brazil also have plans for constellations of micro or nano-satellites.

"*Thanks to this partnership, our company has taken on a new dimension, enabling us to respond to new industrial challenges in the space sectors. Syrlinks team meets now the challenges of the space market by mass producing complex and ultra-reliable space equipment at a controlled cost*" explains Guy Richard, President of Syrlinks. The company, founded in 2011 near Rennes (capital of Brittany), employs around a hundred people. Its leaders anticipate the **recruitment of around twenty additional people in 2019**.

The NewSpace revolution

With its radiocommunication equipment that they integrate into brand-new small satellites, Syrlinks **meets the NewSpace challenge**. The company has been working since 2011 on this new disruptive approach which has benefited from the most recent technological advances such as the miniaturization of components or public-private partnership. Indeed, the company has benefited from a **BPI France funding** in the national framework of PIAVE (Industrial projects for the future) and from the **technical expertise of the CNES** (French national center for space studies). This project has led to the development of a new product line for constellations. Thanks to this new expertise, Syrlinks has become one of the few French players of this NewSpace approach and plans to win new contracts very soon.

"In order for the constellations business model to remain viable, we had to reduce development and production costs, while maintaining a level of quality and reliability identical to the older generations of satellites. We had to rethink the development and production methods commonly used in the space industry by taking as our model what is being done in the automotive world. It was also necessary to rethink the equipment qualification and test methods. We are now well equipped to meet the challenges of the NewSpace universe" explains Bertrand Ekoué, Project Manager at Syrlinks.

The first global Internet satellite network

This OneWeb mega-constellation of 600 telecommunication microsatellites will provide whole Earth Internet coverage by 2022. This feat is made possible thanks to a considerable investment and a consortium of international companies selected for their expertise and their ability to move up to the industrial scale. This program will make it possible to produce unprecedented volumes. A true revolution for the space industry!

Testimonies of Airbus OneWeb Satellites

"From the blank page to the delivery of flight models for the OneWeb project, Syrlinks has put all its know-how into the signal processing and radiofrequency technical domains, developing new designs, prototyping them, qualifying them and finally testing them with success. Syrlinks is now a reference in the space industry for its ability to develop innovative and high-performance products" says Michel Crouzel, Technical Manager at Airbus OneWeb Satellites.

"In the context of the NewSpace industry, the Syrlinks team brings expertise, innovation, reactivity and competitiveness. Syrlinks is one of the key contributors to the success of OneWeb" attests Frédéric Bonnet, Supply Chain, Airbus OneWeb Satellites.

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Going a step further…

More on the OneWeb program:

- Airbus OneWeb Satellites website
- OneWeb website
- OneWeb Satellites website

- Video illustrating the Supply Chain's role in Program's success: https://youtu.be/RqA8YWiUcVg
- The Story of … accessible space for all: https://youtu.be/4hu65as2iak - (by Airbus OneWeb Satellites)
- More on NewSpace: Article on NewSpace

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. Its leaders anticipate the recruitment of around twenty more staff in 2019.

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.

What next?

Syrlinks aims to strengthen its space activities for the supply of onboard radiocommunication equipment on small and middle-sized satellite platforms (Micro, Nano/Cube). Building on its business dynamics, Syrlinks is bent on encouraging innovation, strengthening its workforce, developing its export strategy and opening up new markets.

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SYRLINKS IN BRIEF

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Company management

From L to R on the picture:

Guy Richard, CEO,
Philippe Moniot, Sales Director,
Philippe Bataille, CTO,
Gwénaël Guillois, COO, Managing Director
The four co-founders of Syrlinks

- Foundation: June 2011
- Activity: Design, manufacture and marketing of radiocommunication, geolocation and time/frequency equipment for harsh environments.
- Fields of activity: Space- Defense - Safety - Time/Frequency
- Number of employees: 100 including 60 in research & development
- Outlook for recruitment in 2019: 20 new positions, mainly in sales and production
- Turnover 2018: 11 million euros / $12 million
- Turnover 2017: 9,2 million euros / $10 million
- Export: 45% of sales; including 25% in the United States, 15% in Europe, and 5% in Asia.

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ILLUSTRATIONS

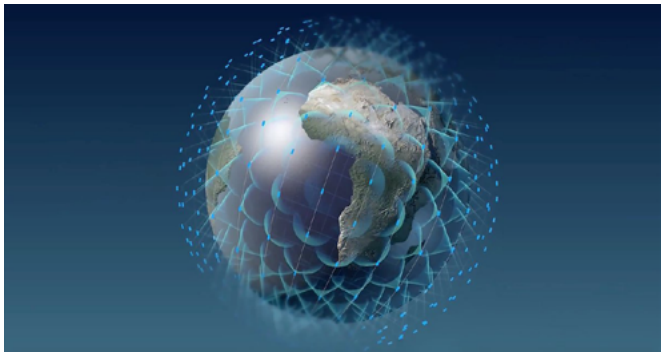

Illustration of the OneWeb microsatellite mega-constellation project extracted of Airbus website

Syrlinks team mobilised by OneWeb project - ©Syrlinks

Syrlinks team working on OneWeb project in R&D laboratory - ©Syrlinks

Syrlinks team working on OneWeb project in clean room - ©Syrlinks

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