

CASE STUDY STREAMLINING THE SAFE INTEGRATION OF DRONES INTO THE AIRSPACE



ABOUT UNIFLY

As the global leading provider of Unmanned Aircraft Systems Traffic Management (UTM) solutions, Unifly drives technology to advance the safety and efficiency of autonomous aviation in everyday life.

In 2015, a team of pilots, air traffic controllers and engineers came together to create safe and smart solutions for the growing volume of unmanned traffic in the world. Since then, Unifly has won several awards and grown in size and presence with many projects involving aviation and local authorities.

The Unifly platform connects authorities with pilots to safely integrate drones into the airspace. BLIP has been developed as part of our vision for safe integration of drones. Through electronic Identification and tracking capabilities, BLIP acts as an electronic license plate for a drone.

With tried and tested solutions and experience gained through collaboration, research, and projects on a global scale, Unifly offers clients a scalable and future-proof path towards a full suite of UTM services.

THE CHALLENGE

“Connectivity is a key factor in safety and security in drone operations. Using Bluetooth and LTE broadcast, the capability to transmit positioning data quickly and accurately is crucial to the efficacy of any UTM system. We realised early on that many of the existing tracking solutions were not able to fulfil our expectations, so we created our own system – the BLIP (Broadcast Location & Identification Platform).

We combined UTM and drone detection (C-UAS) capabilities to detect, identify and differentiate all air traffic., especially within airports and zones with critical infrastructures. BLIP is also designed to work independently with its own power reserve and sensors not just for positioning but also other important data for speed, altitude, pressure, temperature, and direction.

It also had electronic identification capability so that every drone with a BLIP can be easily identified and tracked. This is also vital for progressing the feasibility of BVLOS (Beyond Visual Line of Sight) operations.

For BLIP to work in tandem with our software solutions, we needed reliable connectivity alongside such levels of tracking that are necessary to make drone traffic safe.

Unifly has customers in all corners of the world, so worldwide roaming is a must. Using the local service provider coupled to a special device such as our BLIP is not feasible for several reasons. We have encountered challenges in establishing secure and reliable connectivity in projects residing in other parts of the world.”

THE SOLUTION

“Velos IoT has strong relationships with our hardware partner. This helped us reduce the amount of time needed to troubleshoot problems or bugs faced. In addition, we are not considered a big account, but we found that Velos IoT was customer-friendly and accommodating, even to customers with modest accounts.



They got us started with expert advice as to how many SIM cards we should purchase and details such as the minimum fixed costs we should set aside every month. In addition, their management portal was user friendly – our personnel can enable and disable SIM cards directly. As a result, the BLIPS we have in stock can be activated straight away from “sleep mode” whenever our customer wants to start using them and needs to transmit data.

When we encountered connectivity issues in Canada, we were fortunate to have Velos IoT as our partner as they put in time and effort to contact the relevant parties and successfully requested for data needed to troubleshoot problems that we faced.”

THE RESULTS

“As the operating flows work differently in every country, it would have been impossible to solve this without the support from Velos IoT. Their support organisation was instrumental in pointing out which of our flows were not adapted to certain geographic locations so we could resolve the specific issue when it occurred.

Likewise, if we would use local providers, we would not be able to become aware of or fix any issues that might crop up. The level of support at Velos IoT is a big advantage for us.”

THE FUTURE

“The market is moving towards eSIMs. Likewise, Velos IoT is also incorporating eSIMs and were very proactive in their communication to us. We will receive one shortly to start testing and we feel confident that with both our hardware partner and Velos IoT, we will be able to integrate this smoothly into our system.”

Jan Broux
Product Manager

IOT FOR SAFER AIRSPACE

Harness the power of connectivity with Velos IoT. We are a global integrated connectivity provider with extensive experience in delivering IoT services via proprietary core and roaming agreements. Supported by team of 120+ experts and with over 600 global networks, Velos IoT provides customers with sustainable, scalable, compliant, and secure access to connectivity.

At Velos IoT we value the agility and resilience IoT customers require. We have shipped over 17M SIMs worldwide and offer solutions to businesses of all sizes – from small specialist players to huge manufacturers. Our portfolio includes flexibility in integration options covering features around security and resilience.

sales@velosiot.com

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