



HERE and Unifly to map the airspace for drones

- ▼ *Rich and accurate data sources will be vital for safe drone transportation*
- ▼ *In the Autonomous World, ground and airborne vehicle traffic will need coordination*

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Las Vegas, CES – Soon it may not only be our roads that are congested. The growing popularity of drones, whether for recreational or commercial use, has highlighted the challenge of managing traffic in low-altitude airspace. Moreover, in the future Autonomous World, the traffic of both airborne and ground vehicles will need to be well orchestrated to ensure safety and efficiency.

To help meet these needs, HERE Technologies, a global leader in digital mapping and location services, and Unifly, the leading provider of Unmanned Traffic Management (UTM) software, are teaming up to jointly enable airspace maps for drones.

In the first phase of their collaboration, the companies plan to enable an airspace map for drones that covers both rural and urban areas, and marks out no-fly zones, such as airports, residential areas and sensitive government installations.

In the second phase, the companies plan to further develop the system to support the management of drone traffic flow and even collision avoidance, much like air traffic controllers do for the airline industry today. Longer-term, the aim is to explore how drone transportation and logistics can be integrated seamlessly into the broader transportation system.

The Unifly UTM platform connects relevant local and aviation authorities with drone pilots to safely integrate drones into the airspace. HERE, meanwhile, is developing the Reality Index™, a rich real-time digital representation of the physical world. Based on the companies' commercial agreement, Unifly will integrate HERE map and location data from the Reality Index™ into its applications to provide a more and more robust picture of the low-altitude airspace.

Drones: the ultimate users of the Reality Index™

A drone generally needs a map from the ground up to an altitude of about 150 meters; in future, a flying taxi may need the map to extend higher. Drones need to take into account obstacles, buildings and people's privacy. As airborne objects, they are also subject to various airspace regulations.



For drones to operate safely and predictably, access to rich and accurate data sources is paramount. These data sources must also be kept updated to ensure usefulness. Just as HERE today turns the real-time sensor data generated by millions of vehicles on the road into map information and new location services for drivers and passengers, drones themselves could also be employed to enable the self-healing of the airspace map. Equipped with various sophisticated sensors, drones could detect changes in the real-world environment and feed data back to the cloud to support map updates.

By aggregating data from many drones, the airspace map could also be enriched with precise information about hyperlocal weather conditions, potential hazards and the best navigable routes.

Leon van de Pas, Senior VP Internet of Things at HERE Technologies, said: “Drones will be the ultimate users of the Reality Index™, the rich real-time digital representation of the physical world we’re creating. By combining our location technologies with the drone traffic management expertise of Unifly, we’re excited to help shape the future of this growing industry.”

Marc Kegelaers, Chief Executive Officer of Unifly, said: “New mapping technologies will make it easier to tell a drone and its operator where they can viably, safely and legally fly. This is needed if, one day, drones are to be flown remotely out of the view of their operators. And it will be even more essential as autonomously-flying drones become more prevalent. By greatly boosting the situational awareness of drone traffic, we act as a catalyser for developing new and exciting applications of drone technology.”

HERE and Unifly will be demonstrating the airspace map at the HERE Technologies booth at CES 2018 in Las Vegas on January 9-12, 2018. The HERE booth will be located at Central Plaza CP-2 of the Las Vegas Convention Center.

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About HERE Technologies

HERE, the Open Location Platform company, enables people, enterprises and cities to harness the power of location. By making sense of the world through the lens of location we empower our customers to achieve better outcomes – from helping a city manage its infrastructure or an enterprise optimize its assets to guiding drivers to their destination safely. To learn more about HERE, including our new generation of cloud-based location platform services, visit <http://360.here.com> and www.here.com

About Unifly

Unifly's Unmanned Traffic Management (UTM) platform connects official entities with operators to integrate drones into the airspace safely and securely. Authorities can visualize and manage drone flights and define no-drone zones enabling dynamic drone flight and airspace management including real-time drone surveillance and tracking.

In line with European initiative U-space that aims to make denser traffic of automated drone operations possible, Unifly's technology includes flight planning, airspace approval, live tracking and dynamic situational awareness. For more information, visit <http://www.unifly.aero/>