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Steps forward in air freight digitalisation

Unilode is able to accelerate plans to install its Bluetooth ULD readers worldwide thanks to collaborations with several major third-party cargo handling partners, CEO Benoît Dumont tells *Will Waters*

The development, and more recently the beginning of the rollout, of tracking and monitoring capabilities for unit load devices (ULDs) has been one of the most promising signs of progress in the last couple of years in the air freight sector's digitalisation journey.

As a key innovator, developer and user of the technology, leading outsourced ULD management specialist Unilode Aviation Solutions has been at the leading edge of these initiatives. And alongside rolling out the tracking capability for specific individual airline cargo customers, within the past year it has concluded agreements to install its Bluetooth ULD readers at the worldwide handling facilities of several major third-party multinational cargo handlers including Swissport, Dnata and Menzies, promising to significantly increase ULD and cargo visibility in the aviation supply chain. Will Waters asks Unilode CEO Benoît Dumont for an update.

What have been the latest key milestones in the development and rollout of cargo ULD tracking technology – among your network and customers, and in the cargo ULD sector more widely?

The latest key milestones are divided among three areas, namely our backend system, reader infrastructure, and product development.

1. The backend system. Unilode has been putting all its efforts into building a state-of-the-art user interface based on a so-called "data lake" that is enabling all actors of the ULD value chain to access and visualise ULD information through Unilode's proprietary FAST platform. This system, combined with a multi-language mobile application, now offers our customers real-time information about the condition of the ULDs and their cargo at their fingertips. As of September, we will give access to customers and ground handlers to our new frontend systems.

2. The reader infrastructure. We have now rolled out our network to more than 250 reading locations and our recent collaboration announcements with the "who's who" of the ground handling community have clearly accelerated our deployment. In combination with the successful launch of our mobile reading capabilities, our infrastructure is now offering a great network coverage to our clients.

3. Product development. We have focused our latest recruitments on hiring talents that can help us engineer solutions that will support airlines to create additional value in

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> **BENOÎT DUMONT**

their operations and services offered to their customers – not only in the air cargo area, but also in relation with passengers and safety. Discussions with existing and new customers have intensified with more collaborative initiatives in place for tagging, reader roll-out or joint definition of value proposition.

To what extent has this been impacted by the COVID-19 pandemic? Has there been any significant evidence of companies wishing to participate in or accelerate their involvement in ULD tracking projects due to the pandemic – or, conversely, to delay participation?

The pandemic situation did provide us some extra time to focus on our products, as initially the customer interactions reduced, for obvious reasons. This has helped us to massively boost the development of our solution and enabled us to focus our efforts internally to adjust our solution to our strategic aspirations. In the last few weeks, we have seen increasing interest for our technology. Many airlines are in the middle of re-inventing themselves and looking at transformational initiatives that help reduce costs, increase agility and enable new sources of growth through offering a better service for their passengers and cargo customers. Our solutions will address that.

Are you able to report any significant quantifiable positive outcomes – in efficiency improvements or cost savings, for example – of participating in ULD tracking projects, for Unilode or its customers?

We are the first user of our technology – as I like to say during my interactions with customers – "we are eating our own dog food". What I mean by that is that this

double-digit million-dollar investment is also helping us to operate more efficiently for our customers. We have renewed all our ULD management contracts in the last years and there is an expectation that we can continue to enhance transparency for our service offering and also help reduce the number of ULDs our customers need for their operations. Complementing weekly manual stock information with real-time accurate stock messages is an industry game changer. The huge number of lost and unreported ULDs

in the industry could be reduced by 75%, which dramatically increases asset utilisation rates. It will further reduce the need for Capex spend related to the acquisition of new units and also limit the use of expensive short-term lease requirements in order to avoid revenue losses.

Are we approaching a point where digital tracking of ULDs is becoming a requirement by airlines, or a competitive differentiator? Or does there need to be a critical mass of sensors in handling

warehouses before there is meaningful value for customers?

In terms of tagged ULDs, we will reach the critical mass in our fleet by the first quarter of next year, and our mobile reading options offer endless possibilities in our network coverage. Thanks to the latest collaborations with our ground handler partners, the roll-out can now be accelerated.

The good thing with this solution is that you can see benefits early in the process as the roll-out can focus on special critical lanes or areas to fast-track returns on investments. For sure, we believe it is a game changer, as deploying such a technology globally to so many areas in such a regulated environment is a huge task.

Getting all operational permissions to tag, fly and operate digitalised ULDs has taken Unilode many years of hard work and collaborative initiatives. In the current context, we believe that this will be very difficult to replicate. Many customers are sitting on the fence, but they have realised that this technology can help them focus even more on their core business as the solution enables the provision of new customer-relevant data, which was unthinkable before.

The trick here is to turn technology into product, and this is why we are shifting our efforts in that area with full steam. In a few years from now, we will be looking back and wonder how 1 million ULDs could be managed 24/7 globally based on physical checks. The IoT development will for sure transform the operating models in our industry.

What are the targets for the rollout of ULD tracking sensors for the major cargo handlers? How important is this rollout for major cargo handlers a key part of your strategic plan and vision?

The simple target for all ground handlers, independently of who they are, is a 100% full digital coverage of our current and future customers' network in their respective locations. Everywhere, where ULDs are handled, accumulated, loaded, unloaded, we need messages.

Ultimately, handlers will not need to report messages about our ULDs, as ULDs will 'talk'.
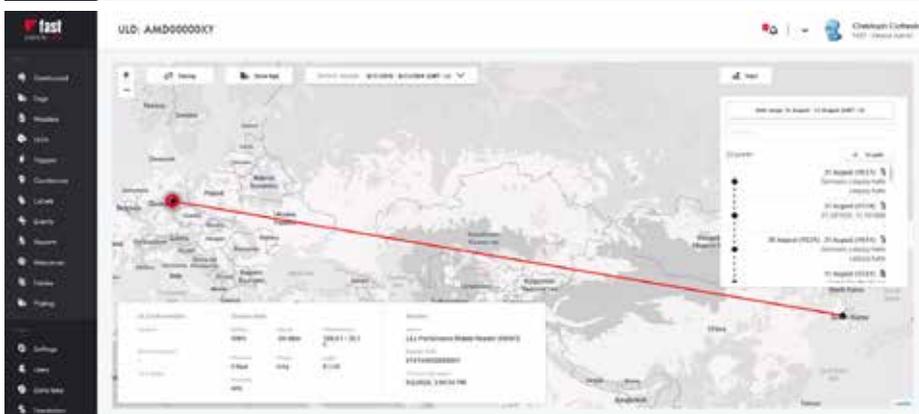
That will enable them to focus on their core activities rather than counting containers and pallets. Initially, we have started to engage with them at a more operational level, but we are hoping that in a few months we will be able to demonstrate the true value of this technology to them and therefore reach a more strategic level in our collaboration.

Has the crisis affected companies' willingness or motivation to outsource their cargo ULD management?
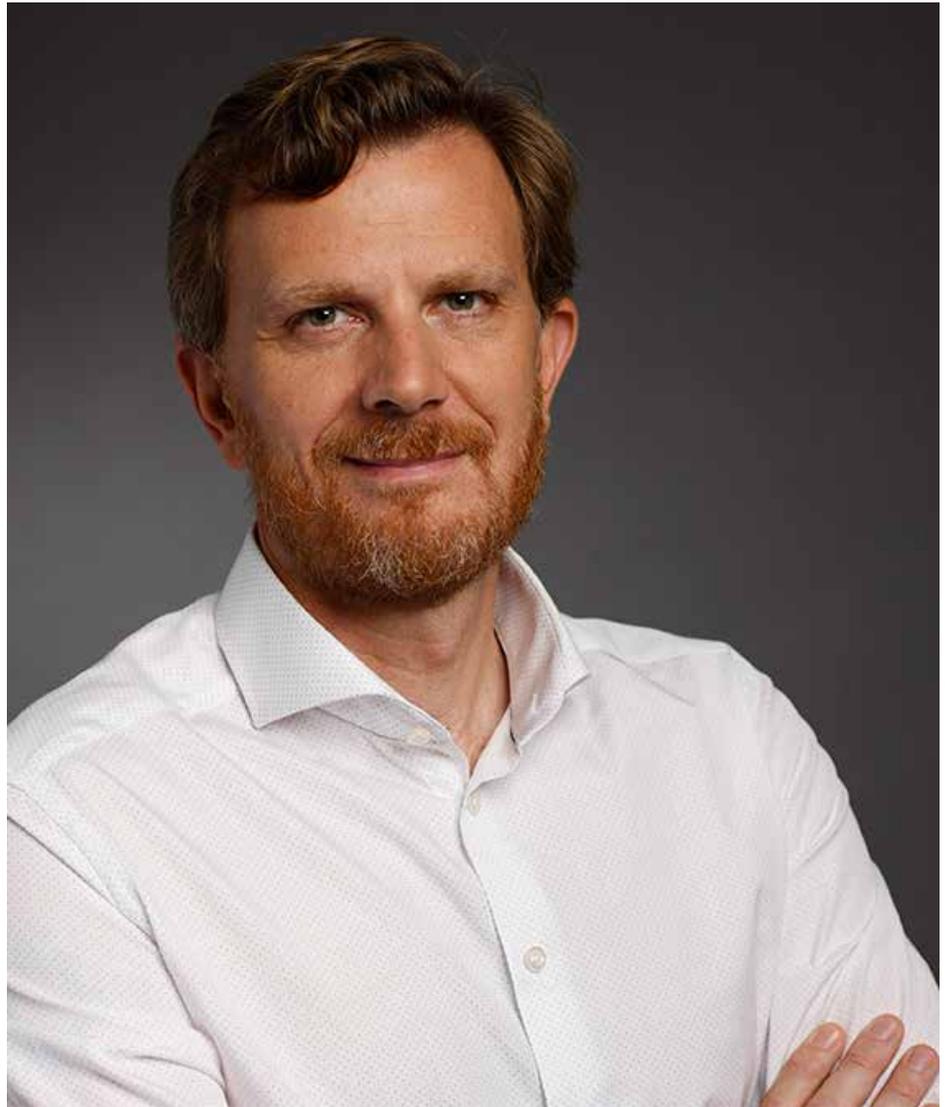
It is all about what value proposition you can offer. The current crisis has highlighted a number of critical areas and flaws in cargo operations. Why would you pay for ULDs if you don't need them? How do you know where ULDs are if there are no staff in stations to record stock information? In this Capex-restrained environment, do I need to continue to invest into ULDs or could I move to a sale-and-leaseback model that is also more flexible? Was I able to secure my ULD management team during this crisis or did I lose key individuals and knowledge along the way?

Every airline will face its own challenges, but there are many examples that would speak for an increase in the willingness to outsource. We are in discussions with a lot of new potential customers and have focused our efforts to re-gear our value proposition to the immediate needs for some and new strategic aspirations for others – these are exciting times.

How do you see the outlook currently – both in terms of tracking projects, and the ULD outsourcing market?

In terms of tracking projects, most airlines start 'sniffing' the value of digital without being truly able to quantify the benefits that would make their business case fly. None of the solutions available at the moment ticks all boxes or has been rolled out at a sufficient scale to underpin their decisions.

At Unilode, we see opportunities to leverage our own solutions and have started to work with some customers to co-create what would deliver sufficient benefits for them. There are also different parties within airlines; what is relevant for a ULD manager is different from what could be relevant for a cargo specialities sales executive. We have recognised that and started to position our services higher up into an organisation where perspectives on long-term benefits are easier to pitch.

What we are trying to do is to package our digital solutions into ULD outsourcing deals. In fact, we assemble, maintain and repair ULDs so we are in a better position to deploy the technology as part of fully outsourced deals. Our tracking capability is now part of our standard ULD management offering, so airlines joining the Unilode pool can enjoy the technology as part of the standard outsourcing services.

Are there any other significant developments in the cargo ULD market worth noting?

We see many airlines moving to some forms of fire-resistant container fleet programmes and we are following this with a lot of interest. These units are often more expensive, heavier and possibly of higher maintenance, so these requirements could be interesting for us. On top of this, this type of containers combined with temperature sensors could really enhance safety on board aircraft, especially as lithium batteries are part of many consumer electronics products.