



## Staying ahead of the curve

Alongside continuing to develop Unilode's leading position in ULD fleet digitalisation and tracking, the most urgent priority for the ULD pooling specialist is simply 'to be ahead of the curve in terms of the bounce-back', as airline demand returns and operating costs soar, says CEO Ross Marino

**U**nilode in April reached a milestone in the much-heralded digitalisation process for its unit load device fleet – “the world’s largest digital ULD fleet” – with an “unrivalled”

100,000 of its roughly 145,000 ULDs now fitted with Bluetooth-based tracking devices. Furthermore, the company underwent a change of ownership in the second half of last year, acquired by private equity investment firm Basalt Infrastructure Partners, and this year saw a change at the helm, with Benoit Dumont handing over the reins after four years to Ross Marino, long-time senior executive at international air cargo handling and airport services group Dnata.

So what are the priorities of Marino and the new owners of this company, which alongside its leading position in outsourced airline ULD management has been playing a leading role in developing a key

element of air freight's digitalisation process and potential Internet of Things capability – the ability to track and monitor the ULDs that cargo is carried in and on?

### Ramping up

Marino says the most urgent priority is to respond to the rapidly recovering demand for ULDs as airlines reintroduce scheduled capacity and air passenger demand makes its post-Covid revival.

“The call for ULDs, and particularly for containers as passenger demand returns, is already ramping up and we believe will continue to do so” he highlights.

Like most other companies within the aviation sector, during the pandemic Unilode “managed its business cautiously” in terms of investing in assets. But by the end of this financial year at the end of June, it will have invested in excess of US\$20 million “in basically restocking with new ULDs – to meet the pre-pandemic levels, and a bit more.”

Cargo customers “have been operating at more or less full tilt already – and showing signs of requiring more ULD stock. My biggest challenge is making sure we can satisfy this demand,” Marino says.

### Growth targets

Three-year to five-year targets from the new owners include wanting “to have the market leader in our industry, a successful business, and one that will show growth”. Growth is needed for the business to be sustainable, given that “the investments we are making, not only in our asset base but also in our digital capability, are significant. And we know the supply chain is under enormous pressure at the moment, and the cost of goods is increasing massively, and the cost of labour.”

Marino says the ability to recruit and retain talent is more challenging than he has ever seen in 30+ years in this industry. “And the cost of parts for the ULDs, and the timelines, transport, fuel rent, labour, all of these things continue to rise.”

Alongside the tragic human costs, the war in Ukraine has added to the challenges already faced in coming out of the pandemic. A company like Unilode requires significant supplies

of aluminium, rivets and curtains and nets for its ULD fleet. “The supply chain for these goods has become extremely challenging – these materials have become a scarcity,” notes Marino.

Some parts that might have taken four to six weeks can now take 35 weeks to arrive, for example. And the costs of certain products have risen by 20-30%, and in some extreme cases by 50-60%. “Obviously, we have to manage this very carefully,” Marino explains. “Our procurement team is doing an amazing job in trying to keep these costs under

control and keep the supply chain running.”

### New customer trends

Meanwhile, new customer trends “depend on the type of carrier we are talking to. Airlines that are particularly focused on cargo are looking for a USP that will help them win business, whether it is from pharmaceutical companies or other manufacturers. So, we are having a lot of discussions around our digital capability, as our product has the ability to do the track and trace, so at any point we can advise our



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clients where our ULDs are located.

“But we also have the ability to monitor temperature, so if you have temperature-sensitive goods such as pharmaceuticals, perishables, flowers etc. we have the capability to monitor and report back temperature deviations.

“We have sensors that can also detect shock, humidity and light levels, which can be particularly useful in the transport of certain goods. So, we are talking to a number of customers about that capability.”

**Environmental benefit**

Unilode is also talking to carriers that currently own and manage their own ULD fleets – which is still the majority – about the potential to improve their environmental footprint by switching to a pooling model, which introduces lighter weight ULDs and greatly reduces the need to reposition ULDs around their networks. The company’s own in-house

MRO (maintenance, repairs and overhaul) capability also contributes to the potential positioning efficiencies.

Although the environmental element has not yet become a strong selling point, “there are a number of airlines that are very interested. I think it will become front and centre before too long,” Marino notes.

Another factor helping drive outsourcing has been the detrimental effect of the pandemic on the finances of many businesses, with ULD pooling offering substantial Capex and operational expenditure (Opex) savings for carriers. “So, the financial benefits, alongside environmental benefits and all the digital benefits, I truly believe is an incredibly attractive proposition,” Marino says.

**Digital discussions**

For some major carriers, particularly those with a strong focus on cargo, Unilode’s digital capability has become “the first point of discussion”, with

customers seeking “a number of benefits” – from the digital offering’s real-time tracking capability for the cargo associated with the ULDs, to tracking losses or damages of units or their contents – but “particularly the value proposition to the customer’s customer” of being able to track cargo needing special care and monitor other elements such as temperature, humidity, shock.

“The ability to on-sell that USP and advantage in a hugely competitive market is something the carriers have taken note of”, Marino adds.

**Managing stock efficiently**

“The other element is the ability to manage stock efficiently. If you can operate with fewer ULDs, because we know where they are, the cost of the ULD fleet is reduced significantly. So, the benefits in terms of the service proposition, but also the cost benefits that come with that – that’s on top of the



benefits of Capex.

“This is a real driver to wanting to talk to us about how our product can help them to offer something to the customers that is not available in the market right now.”

The charging model for the digital capabilities varies according to the customer, but typically, Unilode will include the track and trace element of its digital capability with its standard ULD pooling concept. “The other elements we see as a value-add proposition, and as we use and develop those it will be like a catalogue of services that customers can choose from. That is something we are still developing and refining. But the ability and capability is there, which we are already delivering to some of the customers.”

**Evolving solutions**

Unilode has been working for several years in partnership with OnAsset Intelligence, a leading provider of supply chain tracking and monitoring solutions, and the two parties are continuing to develop the technology elements to keep



Ross Marino with chief inspector Paul Beunder (left), digitising a container with a Bluetooth tag at Unilode’s repair station in Amsterdam

these digital service elements evolving – including focusing on the business intelligence capabilities and how to use, display and share that information.

In addition to a global infrastructure of readers at key airports using OnAsset’s Sentry 600 Bluetooth 5 readers, which capture data from the multi-sensor



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digital tags on Unilode's ULDs, a mobile app allows any iOS or Android device to become part of the reader network.

### Industry involvement

Marino says he would like to see discussions develop with the wider air freight industry, including with airline association IATA but also with aircraft manufacturers and airports, about how to use the Unilode network to help contribute solutions to other challenges in the sector.

"We know that many airports are congested, and the inefficient use of ULDs means there are too many in circulation at the busy airports," he highlights. "I think we have to be talking about how we can use these assets more efficiently, throughout the whole life-cycle." This would include the freight forwarders and shippers that take ULDs off airport to load cargo, but also ground handlers and airlines.

"I don't believe the industry has really paid enough attention to that usage of the ULD," Marino notes. "It's my intention

within Unilode to set ourselves up so ESG (environmental, social and governance) elements are front of mind, as well as working with industry partners."

### Top priorities

Although the main priority for this year is "to be ahead of the curve in terms of the bounce-back", there are various service development initiatives progressing, mainly on the digital side.

"We have a number of airlines where we're exploring linking an air waybill to a container and feed the container information into cargo management systems. Or other elements where airlines have got different requirements – such as in the temperature monitoring, particular for perishable goods – and we have a number of proof of concepts for specific airline needs and how we enhance that product offering to them," Marino highlights. "So, there is a general concept, and then the customer-specific areas that we are working on as well."

Already, the basic track and trace elements of the digitalisation means "we have greatly improved ULD positioning and reduced the number of unreported and lost ULDs", along with automating several manual tasks in data collection and reporting and providing additional commercial benefits for customers.

Having now installed Bluetooth devices on more than two third of its ULD fleet, the focus continues on digitising the remainder of the fleet. And although the company may currently have a leading position with its digital ULD network and infrastructure, as communications technology continues to develop rapidly, including tracking tags and reader device technology, there is no opportunity to stand still.

"That technology will evolve massively over a relatively short space of time," Marino highlights. "We have to be at the forefront of that because it will have a huge advantage to our industry. We've got a brilliant team working very closely on that." ■