Last-mile express

THE INTEGRATION OF ROUTING SOFTWARE AND DRONES COULD OFFER POSTS A WAY TO KEEP UP WITH CONSUMER DEMAND, WRITES **RICHARD WILLIAMS**

Growing demand for express and next-day delivery is putting pressure on posts that want to compete in the e-commerce marketplace. Without the flexibility that express companies enjoy, and with their commitment to deliver standard mail, what solutions can help posts meet these new last-mile demands?

It used to be that standard delivery from e-commerce giants such as Amazon allowed posts two to three days to get the goods to the door. That is all changing. Increasingly, express and next-day delivery are becoming standard from online retailers, and posts are struggling to meet this demand.

"Our data suggests the market is moving more to next-day. Driving this is retailers trying to stay ahead of the competition," says Andrew Starkey, head of e-logistics at IMRG, the UK's industry association for retail. "It used to be that customers had to pay extra for next-day, but then Amazon started to offer it as standard, so consumers being consumers take it."

Starkey believes this move to next-day as standard has the potential to cause problems for all of the supply chain, not just posts.

"E-logistics like a highway – when traffic is using all the lanes it runs smoothly, but if everybody is in the fast lane it causes jams because there is finite capacity and of course this can affect posts most of all," warns Starkey.

Universal service obligation Unlike express carriers, posts are obligated to deliver mail,

Route optimization must consider delivery workers, with changes made incrementally so deliery workers can adjust

forcing some to implement separate delivery services for mail and parcels, hardly an ideal situation for organizations that are intent on remaining competitive.

"What affects us most is our universal service obligation, which says we have to deliver mail by the early afternoon," says Markus Steinmann, mail carriers routing specialist at Swiss Post. "Some technologies such as automation in the sorting areas mean we can start earlier, but that limit still hurts us. But we can deliver parcels at any time.

"Mail routes are not flexible. It is also a question of volume and the type of vehicle. A couple of parcels would fill the mailman's scooter that we use out here," says Steinmann.

"It does differ from country to country. Some have mail carriers that deliver parcels too. In Switzerland we have mixed delivery in rural areas, but a separate delivery organization makes sense in urban areas."

Of course, even having a separate parcel delivery network brings with it its own issues, not least making the service as efficient as possible to ensure maximum profitability.

"The postman goes to many more addresses each day than the parcel carrier does, so you need a device to help him get to the address in the best way possible," says Steinmann.

He says he and his team use RouteSmart, which not only helps them find the most efficient route to deliver express packages, but also eliminates deadhead, when vehicles travel without carrying anything.

"Posts want combined delivery. They want postmen to integrate new services into their delivery networks"

Pierre Cossette, director of GeoRoute, a route optimization software, at GIRO

"What the routing system lets us do is macro- and micromanage the route. It shows the best way to travel around the route and lets us eliminate deadhead, which is very inefficient. But it also creates routes that are average in volume and that work."

Combined routes Not all posts want to separate their parcel and letter networks. If a postal carrier is at the door in the morning, why can't he deliver the package along with the letters?

"Historically express has been a separate delivery network, but posts with their regular letter delivery want new products, and express and next-day delivery is part of that," says Pierre Cossette, director of GeoRoute, a route optimization system for posts, at GIRO.

"Posts want more and more combined delivery. They want regular postal carriers to integrate new services into their delivery networks. The problem is that with express mail you need to be flexible, you need to build a new route every day, but with standard delivery you can't do this. Routes have to be fixed and stable.

"Imagine if you load a vehicle differently every day," says Cossette. "With some products that are not scanned and some that are, and postmen doing different routes each day, it would be chaos. Postal carriers don't like big changes. They need stability and any big change is very costly."

He says GIRO GeoRoute helps posts combine express parcels with letter delivery

by making minor tweaks to their routes: "It is all planned in advance, so if you have 25 routes, the best solution might be to change all 25, but you cannot do that, so we look at what we can do. Our software keeps the routes as fixed as possible."

Cossette adds that preplanning all scenarios prevents any changes from being disruptive: "You identify blocks of streets that you can move from time to time and the mailmen can get used to these changes when they occur, so it is not a big shock when it happens."

Pinpoint accuracy Making the delivery process more efficient is not just about finding the best route. Guy Davenport, co-founder of smart addressing platform Locpin, believes he has created a way to avoid parcels being left in the wrong place and to ensure more parcels are delivered in the first attempt.

"We sit in the middle between retailers, customers and delivery companies. Locpin enables customers to take control of their delivery options," says Davenport.

"Whenever you order online with our partners, we send a message, not in the check-out system, but once the order is placed. We show the customer a map and say, 'This is where we plan to deliver to you,' and allow them to drag a pin to the exact spot."

He says once customers mark the map with a pin, Locpin takes the GPS coordinates – accurate to 3m (10ft), anywhere in the world – and puts them in a database that can be shared by any of their partners when they need to make a delivery to that customer.

"The really clever bit is that we link all this information to an existing cell phone number and an email. We also provide the ability to set delivery instructions, such as access codes for gates or where to leave the parcel if there is no one in, or if a particular location is hard to find," says Davenport.

"For delivery companies, it ensures a more efficient delivery, with more parcels delivered in the first attempt," he claims.

The rise and rise of free delivery

Offering next-day and express delivery as standard is part of a trend that is now seeing an increasing number of online retailers offering free next-day delivery, putting more pressure on the supply chain.

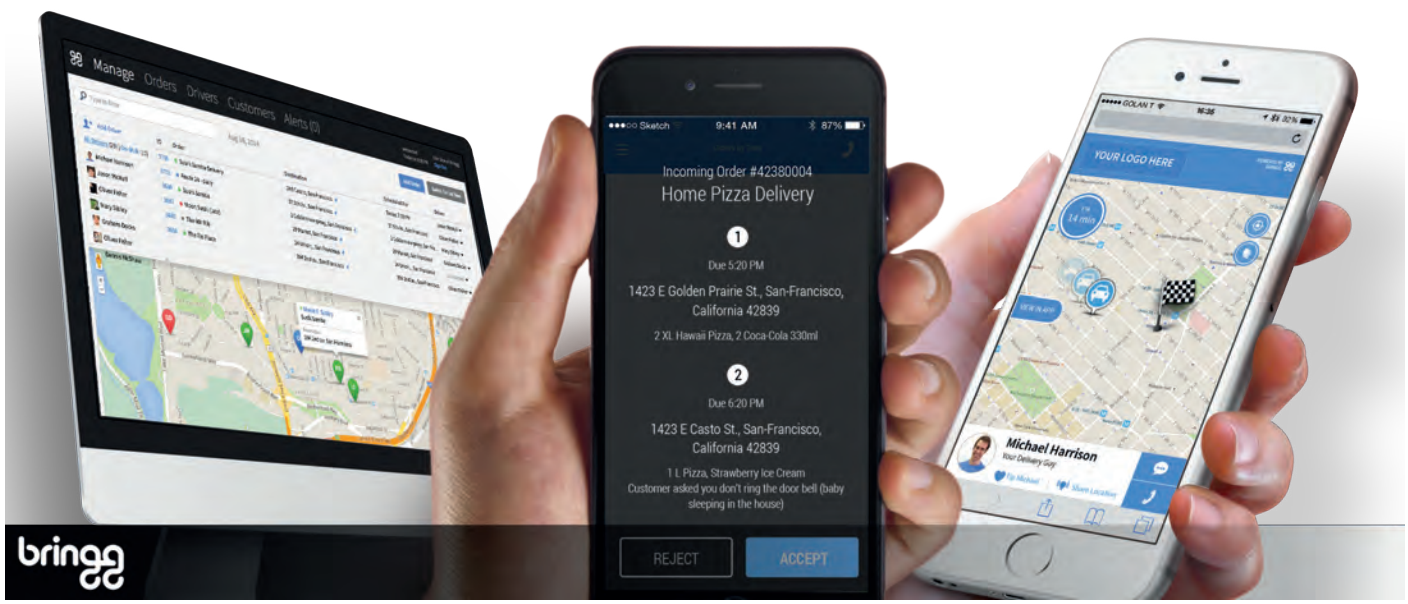
"In many ways, retailers are making a rod for their own backs," says Andrew Starkey at the UK industry association for retail, IMRG.

"There is an increase in the use of next-day delivery, and the gap has closed since last year. However, the reason is interesting. In my view, the demand comes from the supply. Retailers offering next-day for free or lower cost to attract customers leads to an increase in use," he says.

"Customers won't necessarily pay that much extra, so if it's not free, demand drops away. If a retailer will give you something for nothing, why wouldn't you want it?"

IMRG's data suggests if next-day delivery costs above £2 (US$2.60), consumers don't want it.

"And when we ask if people must have next-day delivery for late-placed orders, nearly two-thirds do not expect it, suggesting that this is not a demand-driven situation," he says.



Posts can use logistics platform Bringg to link with other delivery companies

Lyngsoe Systems

Consumers are demanding tracking of consignments at all stages of the supply chain

Drones on delivery

An increasing number of posts are experimenting with drones as a method of making the last mile more efficient, but are they an actual solution to the challenges?

"At the moment, they are a bit of a fad, but there is potential there," says Markus Steinmann at Swiss Post. "Drones going back and forth to the van, helping the postmen with deliveries, could certainly benefit last mile."

And Swiss Post, which has huge last-mile challenges in rural, mountainous areas, has been experimenting with drones for the past two years, going from simple test flights to planning actual deliveries.

Other posts with similar last-mile challenges are also experimenting with drones, with Finland's Posti using drones to send parcels to islands in the fjords, while China's largest mail carrier, SF Express, claims it is already carrying out hundreds of deliveries per day to remote areas in Shenzhen and Huizhou using drones.

Of course, Amazon was the first company to announce the use of drones, but do posts have the ability to keep up with the internet giant?

"As with any technology, it needs investment to investigate and the posts have the advantage as they have the capital to make such investments," suggests Steinmann.

Collaboration With posts not having the flexibility of express delivery companies and frequently having to meet the requirements of a universal service obligation, another solution to help them compete in the next-day delivery market is to optimize their assets, and even subcontract out some deliveries.

Raanan Cohen, CEO at Bringg, says, "Last mile is becoming critical with companies such as Amazon pushing same-day and next-day delivery, which challenges everybody to meet the same requirement. Amazon has invested millions in technology to optimize delivery, offer visibility and be as efficient as possible."

Cohen says Bringg, a logistics platform, can offer those in the supply chain the same logistical optimization as Amazon. "What we offer is the ability for small and large companies alike to provide the same optimization," he claims.

He says Bringg analyzes a company's assets, both internal and external, then coordinates and optimizes, either by best price, time, or service level.

"For posts who want to offer next-day and same-day, we act as a conduit to help them partner with other delivery companies so they can optimize all their internal and external channels. This means they can become more dynamic for last mile. They can use external companies, such as local couriers.

"We are seeing more and more of these sorts of partnerships and we provide a digital layer between delivery partners so that they don't have to worry about market secrets and can optimize the last mile."

Visibility Express and next-day are not the only things e-commerce firms and customers are demanding from delivery companies.

"We provide a digital layer between delivery partners so that they can optimize the last mile"

Raanan Cohen, CEO of logistics software provider Bringg

"What consumers really want is visibility, not necessarily next-day delivery. They want to know when it will arrive and they want flexibility, changing their delivery preference in transit," says Andrew Starkey.

This is backed up by a recent survey from Bringg, which found that nearly half of consumers have not ordered from a retailer again because of poor transparency. The study also found that more than 75% of consumers believe that accurate communication on their order status is important.

Peter Vestergren Åkesen, senior product manager at Lyngsoe Systems, which produces RFID systems for the postal industry, agrees. He believes that the provision of tracking from the retailer to the doorstep is the way forward for posts: "Posts and delivery companies need to offer visibility to retailers and their customers," he says. "They have the means to do this, with RFID tracking for instance. Once they have this visibility, it also means they can offer more flexible delivery, such as inflight changes, because they will know where a parcel is at any given time.

"It also helps with returns. Returns are becoming huge for posts and parcel carriers. Consumers are ordering multiple items and sending several back.

"Retailers can have no idea what their stock levels are when they don't know what is being returned. Visibility can help speed this up as e-tailers will know when an item is being returned and when it will be back much sooner. E-tailers want this sort of visibility, so posts really need to invest in this technology, otherwise they risk losing out." ■