PGS SOFTWARE

Nightline: Improved Stop Predictions Thanks to Revamped Delivery Process

When the premium courier service Nightline was acquired by UPS, the UPS delivery process needed to be adapted to allow the acquiree's freight to be delivered by the acquirer. This was achieved by a revamped UPS delivery process, which also improved delivery stop predictions and enabled estimated delivery times to be set automatically.

◎ BUSINESS NEED

When UPS acquired Nightline, one of the leading express delivery companies in Ireland, a key integration issue was differing delivery processes: Nightline uses a device-based system to scan, load and deliver packages, while UPS drivers relied on a more manual process in which vans are loaded by dedicated pre-loaders. UPS drivers had to memorize the order in which to deliver parcels, while Nightline drivers were supported by a driver manifest.

For UPS drivers to be able to deliver packages more efficiently, a system needed to be found that allowed the use of Nightline's scanning devices.

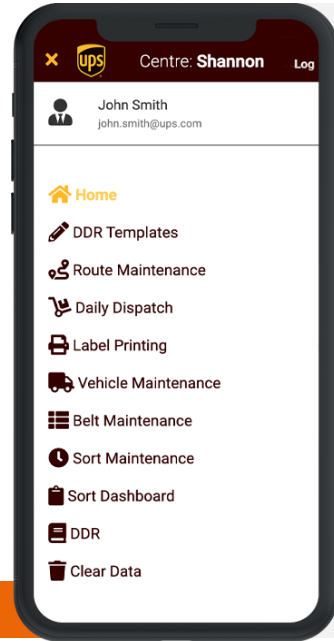| UPS PROCESS	NIGHTLINE PROCESS
Pre-Loaders sort the parcels at the warehouse according to where they need to be delivered. The vans are loaded and, once on the road, drivers need to manually check their cargo and memorize upcoming stops. Due to the peculiarities of the post code system in Ireland, this process **doesn't allow Estimated Delivery Windows to be set automatically**.	Drivers load their trucks themselves after scanning the parcels on a device that generates a driver manifest. Drivers can then go on their way and work through the systemized delivery addresses. The route is generated based on the driver manifest, and having the parcels logged into the system also **allows Estimated Delivery Windows to be set automatically**.

⛰ THE CHALLENGE

UPS drivers wanted to use the Nightline scanning device in order to be able to deliver Nightline parcels, but the Nightline system couldn't be adopted 1-1 due to the existing UPS infrastructure at their distribution centers. Drawing inspiration from storage and ticketing systems within Nightline, the Nightline IT-team took the initiative to create something that proved to be a much more effective solution than the existing UPS delivery process.

THE SOLUTION

UPS pre-loaders now use an app to scan parcels, after which a load chart is generated. They then load the van in accordance with the load chart, creating a "warehouse on wheels". Parcels are grouped together in shelves, which are later delivered one shelf at a time. The loader's knowledge is then systemized in the Driver Manifest, giving the driver a clear picture of where which parcel is loaded. This allows them to deliver both UPS and Nightline freight using the Nightline delivery application.

Centre: Shannon — Log

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- Home
- DDR Templates
- Route Maintenance
- Daily Dispatch
- Label Printing
- Vehicle Maintenance
- Belt Maintenance
- Sort Maintenance
- Sort Dashboard
- DDR
- Clear Data

LOADER

Scan Package → Check Loading Shelf → Load Package to Shelf → Scan Loading Shelf Barcode
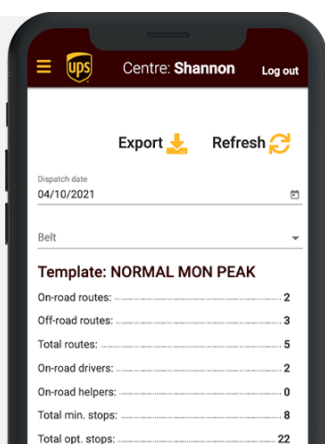
DRIVER

Scan Car Barcode To Download manifest → Configure manifest and Set ETAs → Deliver Packages

BENEFITS

Centre: Shannon — Log out

Export · Refresh

Dispatch date
04/10/2021

Belt

Template: NORMAL MON PEAK

On-road routes: 2
Off-road routes: 3
Total routes: 5
On-road drivers: 2
On-road helpers: 0
Total min. stops: 8
Total opt. stops: 22

Apart from benefiting the smooth integration of two formerly separate entities, the Load 2 Car app also improved the delivery process as a whole. Systemized data has enabled the following improvements:

— Predicted stops vs actual stops are more accurate (+/-1 instead of +/-5)

— ETA calculations are now possible, increasing client satisfaction

— The delivery route can be optimized on the go by the driver, increasing employee satisfaction

Collaboration was key from the UPS stand point – collaboration between the teams in IT, Operations and Industrial Engineering. Developing the system with an agile approach allowed us to engage with the people on the floor, who brought their ideas to the developers via the product owner. Without this approach, which PGS Software supported us with, the project would not have succeeded the way it did.

David Sheridan
Information Technology Development Manager — UPS

PROJECT DETAILS

SOLUTIONS	Azure Cloud, Continuous Delivery
TECHNOLOGIES	.Net (C#), Angular, Azure SQL Server, Azure Virtual Machines, Azure Functions, RabbitMQ, SSRS
TOOLS	Azure DevOps

ABOUT NIGHTLINE

Established in 1992, the Nightline Group has been a leading courier and logistics service in Ireland, serving individuals and businesses around the world – from online retailers to SMEs, from multi-national tech companies, to auto-parts, to retail distributors. Acquired by UPS Ireland in 2017, the combined entities deliver 60,000 parcels daily and serve over 1,500 shippers in Ireland.

ABOUT PGS SOFTWARE

PGS Software supports customers worldwide with tailor-made IT solutions. We offer expertise and services in cloud computing, design and data science – including business analysis, optical and UX/UI design and quality assurance.

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