

Achieving picture-perfect parcel pick-up points

30 April 2024

Waiting in a queue at a parcel pick-up point is never fun, especially for those unfortunate enough to be in the line during peak periods. For retailers, reducing wait times is key for customer satisfaction. To serve customers faster, many are relying on digital images of parcels straight from the sorting centre to quickly identify and distribute items. As well as improving service, this can have a positive effect on other operations too.

Diego Valdivia, Product Manager at Prime Vision, shows how digital image storage can improve service at parcel pick-up points and beyond.

High volume equals long queues

During the festive period, or exceptional events like the pandemic, the logistics sector is required to deal with incredibly high volumes of parcels. With organisations like USPS, Royal Mail and PostNL closing many traditional post offices, backrooms at retailers and other pick-up points are usually stacked to the ceiling with hundreds of parcels of all shapes and sizes ready to be handed out to recipients. Invariably, this leads to queues at the counter as staff sift through the jumble to correctly identify the right parcel. Long waits reduce customer satisfaction and place increased stress on staff, so any solution to alleviate this is welcome.

Finding the right parcel for each customer is the most time-consuming part of the process – but there is a way to speed things up. If staff have access to images that help identify a parcel, they can find it faster and serve people more quickly. Therefore, queues can be reduced and customer satisfaction improved. The

question is, where can retailers obtain these images, and how can they be shared to a pick-up point?

Getting the full picture

The first step is to capture images of parcels travelling through distribution warehouses and sorting centres. Logistics services operating on a national scale typically use camera tunnels and barcode readers to track and locate parcels as they pass through the sorting process. While this is often used to improve the efficiency of warehouse operations, it also provides an opportunity to take the digital images generated from these activities and reuse them to help pick-up point staff quickly identify parcels.

In this scenario, a customer would approach the counter with a barcode to be scanned. Upon scanning, the server would be presented with the most recent image of that parcel in the sorting centre. Now, with an idea of the size and shape of the item, as well as the name of the recipient, the server can enter the backroom and find it more efficiently.

Applying Smart Store to parcel pick-up

Making this possible relies on securely storing all parcel images in a central location, then building a machine-to-machine communication network via an application programming interface (API) to share images between sorting centres and thousands of pick-up and drop-off (PUDO) points.

This is no easy task. First of all, there is an incredible amount of images to process - a large scale logistics company will take millions every day. Consequently, a hybrid system relying on both computing power from the sorting centre and on the cloud is preferable, as pushing all images to the cloud is prohibitively expensive. However, to ensure that images are retrieved when needed, response times between the local and cloud-based systems need to be in the milliseconds.

Implementation is also complex, as the hybrid system must rely to an extent on existing customer software and hardware infrastructure. Consequently, the integrator has to be able to work with local systems while applying source code that effectively manages and automates data sending, encryption, rules and images from different sources.

Possibilities past the counter

Being able to seamlessly access a store of parcel images delivers benefits well beyond the counter. Providing the system with a granular user interface (UI) means it can be utilised by different departments across the operation.

Staying with customer service, a central store of parcel images can accelerate the processing of awkward or damaged items and help justify additional surcharges to customers. Regarding delivery, images uploaded to the system show proof that a parcel has reached its destination. Images can also be forwarded to B2C apps so that recipients can keep track of their parcels in almost real time.

As well as connecting with customers, this kind of system also allows better communication with providers or partners. Decentralised operations are now the norm, and intercommunication between partners, departments and branches is a traditional friction point. However, an image storage system with tailored data streams can provide each player with easy access to the information they require. This facilitates streamlined communication throughout operations, building stronger relationships and better working practices.

Managers are also able to drill down into operations. A picture record of every parcel can help inform financial data, show the provision of storage capacity and measure the time taken for items to pass through the network. Consequently, business decision making can be informed by high-quality data.

Arguably the most tantalising prospect is using the masses of data generated by an image storage system to train artificial intelligence (AI) models. This would

allow logistics companies and retailers to deploy national scale machine learning operations, enabling trends to be analysed and efficiencies spotted across the entire network.

No waiting in line for expert support

Prime Vision's Smart Store provides businesses with a flexible, hybrid system for the optimisation of sorting and pick-up point operations that can store and share tens of millions of images daily. Prime Vision specialises in the integration of Smart Store into existing customer hardware and software infrastructure, while delivering response times of between 20 and 50 milliseconds.

Beyond pick-up points, Smart Store uses images to actively augment customer operational data, harnessing optical character recognition (OCR) and artificial intelligence (AI) techniques like segmentation to provide an automatic stream of data that can increase the intelligence, speed and efficiency of wider sorting operations. Prime Vision's specialism in enriching imagery by interpreting and reconstructing addresses, barcodes, handwriting and other key parcel data means a higher quality image and data flow that unlocks an even greater level of process optimization, saving customers time and money while improving service.

Established with large scale logistics companies and retailers globally, Prime Vision source code, APIs and UIs are tailored to meet the requirements of every level of the logistics value chain. The system is also cloud agnostic, so customers can choose a preferred provider and retain total control of acceptance, testing and operation. With its experience successfully deploying these complex and widespread systems, customers working with Prime Vision won't find themselves waiting in line for a solution.

More from Prime Vision: <https://primevision.com/achieving-picture-perfect-parcel-pick-up-points/>

Image captions:

Image 1: With its experience successfully deploying these complex and widespread systems, postal services working with Prime Vision won't find themselves waiting in line for a solution. (shutterstock_2289661161)



Image 2: During the festive period, or exceptional events like the pandemic, the logistics sector is required to deal with incredibly high volumes of parcels.

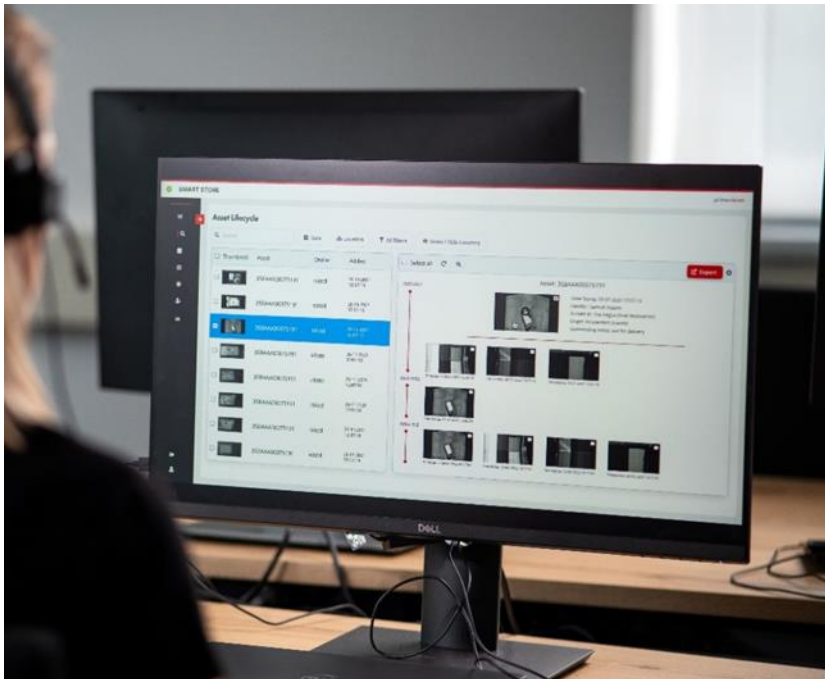


Image 3: Prime Vision's Smart Store provides businesses with a flexible, hybrid system for the optimisation of sorting and pick-up point operations that can store and share tens of millions of images daily.

The image(s) distributed with this press release are for Editorial use only and are subject to copyright. The image(s) may only be used to accompany the press release mentioned here, no other use is permitted.

About Prime Vision

Prime Vision is a global leader in computer vision integration and robotics for logistics and e-commerce. As an award-winning company, Prime Vision designs and integrates solutions using the latest recognition, identification, and robotics techniques to optimize the automation of sorting processes.

Headquartered in Delft, The Netherlands, more than 170 experts provide comprehensive market and domain knowledge to digital companies around the world.

For more information, visit <https://primevision.com/>

Editorial Contact:

DMA Europa: Ollie Eggleton

Tel: +44 (0)1905 917477

Web: news.dmaeuropa.com

Email: press-team@dmaeuropa.com

Address: Progress House, Midland Road, Worcester, Worcestershire,
WR5 1AQ, United Kingdom

Reader Contact:

Prime Vision: Ellen Brender à Brandis

Web: <https://primevision.com/>

Tel.: +31 15 219 2090

Email: info@primevision.com

Address: Olof Palmestraat 10, P.O. Box 6034, 2600 JA Delft, KVK
08068458