

The postal cloud – now within reach

LIVE DATA PROCESSING IN THE CLOUD IS THE FUTURE FOR POSTAL AUTOMATION

Live data processing in the cloud is not just an ambition – it's happening now and is already responsible for substantial productivity gains and cost savings through cost-per-click processing. Forget huge upfront capital investment and welcome the arrival of price-per-click processing. It eliminates process time and optimises on-site manual resources whether you are reducing no-read rates or embarking on new revenue recovery and protection initiatives.

So what order of performance are we talking about here? Well, with Prime Vision's Webcoding technology central to its solution, Post NL is currently processing hundreds of items every second. And this achievement has taken its online coded volume from 55 percent to 96 percent and increased quality by 10 percent.

It's a world first, combining Prime Vision's latest generation ParcelMatch and MailMatch products. The solution challenges the general assumption that processing in the cloud is not suited to live data exchange as the time lag is too long. This preconception is wrong on both counts. It's ideal and takes seconds. And the development is also a signal that live recognition in the cloud from Prime Vision isn't far behind.

Next phase automation A number of factors give this technology star status. The vast majority of operators have already invested heavily in automation and are achieving read rates in the high 80 percent and 90 percent range, depending on the mail category. This has brought the reject stream into sharp focus for squeezing extra



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productivity gains and reducing the cost of manual handling.

Against this backdrop, however, are falling revenues and traffic. In its report for 2010 Royal Mail Group confirmed that its operating profit had declined by £132 million, with revenues hit by a further decline in mail volumes in a highly competitive market. Post NL recorded a decrease of nine percent in the same period, with letters making the greatest contribution to this loss.

At USPS total mail volume in the second quarter of 2011 fell by a further 500 million pieces compared with the same period last year. “Electronic diversion of first class mail continues to be the primary cause of our revenue shortfall,” explains the company’s chief financial officer and executive vice president, Joe Corbett. “It’s all about making smarter decisions based on reliable data to build solid processes. When we do that, the savings will come naturally.”

This trend is reflected globally and muddies the business case for capital expenditure in further automation aimed at improving reject stream productivity. But this is where cloud technology provides a truly viable alternative by allowing the operator to take advantage of highly cost-effective processing of non-OCR readable mail. No board approval is needed, so the organisation can put a toe in the water without taking the plunge.

Per item price Post NL Shore, using Prime Vision technology, is a great example of what’s possible. It is a cost-per-click, fully inclusive model for high-speed, accurate and low-cost video coding. But this can be

just the entry point. The solutions that Prime Vision provides can be solely for video coding or can integrate all manner of services, including live recognition.

Bandwidth restrictions have now been overcome and other industries are already taking their processes into the cloud. Machine vision is just one of them, allowing manufacturers to focus on their core activity and buy in quality control. In essence, cloud-based data processing and recognition are forms of outsourcing. In the same way as manufacturing has taken advantage of lower labour costs by moving production offshore, cloud technology is doing the same for IT and other tasks.

The benefit of such a move in the postal sector is that posts can pay per item for data processing and not for idle time. Implementation is easy without the encumbrance of hardware purchasing and software licensing. And above all it is highly flexible, enabling resources to be scaled up and down within minutes. Indeed one of the key drivers for cloud-based services in the commercial and industrial world is business agility. It enables the business to be highly responsive and flexible.

Dual purpose Post NL Shore, via its cloud-based service, is able to scale up by 500 percent in just 15 minutes. This is not just a good housekeeping exercise, however. It became clear during the evaluation phase that the creation of a cost-efficient online data-entry system for non-OCR readable postal mail images could benefit the postal market at large. So what started life as a cost reduction initiative has ultimately become a separate company and a highly

effective revenue generator too. Indeed such has been its success in the postal sector, Shore is now being extended to serve other industries; energy and market research are just two examples.

Video coding has been continuously developed at Post NL for more than a decade. With Prime Vision's help, Post NL initially introduced a coding pool network at each of its sorting centres. Prime Vision then web-enabled the process, an enhancement that gave the function scalability at peak times.

Around the same time Prime Vision was also working with Itella to increase its video coding flexibility. It became the first post to distribute its video coding function nationwide by introducing what was, in effect, a closed-circuit cloud-based system.

The next phase of development at Post NL was to link existing video coding into an offshore solution for letters, parcels and flats. And by using open interfaces already created in the nationwide coding pool network system, this was quickly achieved.

"Offshore video coding has brought a substantial improvement in quality right from the start. And it's still improving," explains Post NL Shore's director Mario Suykerbuyk. "Data entry is the core business of the offshore video coding team in the Philippines. The operation is run on lean, Six-Sigma techniques and incentives."

This contrasts sharply with the itinerant and temporary workforce that used to underpin peaks in Post NL production.

Suykerbuyk continues: "You cannot always foresee peaks in volume. Neither is it easy to predict bad weather or a workers' strike. The flexibility that the Shore solution has given us means these variables are no longer an issue." It is a 24-hour operation and a fully redundant solution.

Building blocks To enable TNT Post in the UK to benefit from Post NL's Shore solution, Prime Vision developed a two-way interface to offload images and data for mail automation rejects or items that require further intervention. This interface links into Prime Vision's multi-level MailMatch and ParcelMatch platforms and aggregates all manual processing flows into an easy-to-manage stream of work.

One of the many benefits of Prime Vision's technology is its modularity, and this is the case whether the process is conducted on site, across a network or in the cloud. It can easily be enhanced and fine-tuned to achieve maximum performance gains and add value to customer service by broadening its scope. Prime Vision's MailMatch and ParcelMatch are the centralised OCR/ICR management platforms that support an increasing range of modular solutions including weighing and dimensioning, barcode reading,

process monitoring and image archiving.

A new capability is indicia or stamp recognition. Prime Vision can now automatically read more than 95 percent of stamps and franks due to its development of smart label identification algorithms. A vital ingredient in the success of this process is the speed of the recognition engine and this is where Prime Vision's newly enhanced technology scores highly. In fractions of a second, during the automatic sorting process, Prime Vision OCR is able to recognise individual or multiple stamps and other imprints in parallel with text and handwritten address reading. It is also able to read the stamps regardless of their orientation.

Clearly the possibility of adding this element into any cloud-based, live processing solution brings with it the potential for considerable cost savings. Not only does it reliably automate another process, but it also enables under-stamped mail to be automatically detected – an important element in revenue protection and recovery.

Smart recognition Another recent development by Prime Vision is its PHRASE technology – Prime Vision Holistic Reasoning and Assignment Engine. This has established a new level in OCR performance and is the basis of the company's Last Coding Device, a product designed to reintroduce every possible 'no read' back into the automated coding system, whether it be LAN, WAN or cloud based. It is unique in that it offers a solution for both machine-printed and handwritten text.

This technology is now being used as the basis for other projects that have called for end-of-line help with machine-printed script, handwriting or both. All these projects provide proof of how Prime Vision, with its huge in-house knowledge base, can swiftly create a custom solution that can be implemented and adapted for any customer.

PHRASE is the perfect springboard for other parts of the world where inconsistent or incomplete data characterises the mail. Morocco is a good case in point where the lack of a standard address layout considerably impedes automation. Similarly PHRASE is proving an ideal basis for automation in Ireland, where postal codes



Offshore, cloud-based data processing has the potential for major cost savings

are yet to be introduced. It is powerful and highly flexible technology that can address the wide-ranging needs of the world's postal markets as they strive to achieve optimum productivity for minimum cost.

Single source All that is needed for effective automation is available under one roof at Prime Vision. It is a world leader in recognition technology with a high academic and research focus driving performance and new product development. The company's integration and project management skills are proven and it steadfastly builds relationships with postal and logistics organisations worldwide and, most importantly, their equipment and software suppliers.

Software engineering and deployment across many different platforms is a core competence for Prime Vision, enabling the development of 'local' infrastructures,



distributed web and cloud-based solutions and mobile platforms as well.

Last year proved to be the company's best ever and 2011 is on target to break that record. In fact the challenges in the postal market have enabled Prime Vision to consolidate its role and increasingly become the supplier and solution of choice, enabling companies to boost their efficiency, reduce costs and become more competitive.

Prime Vision's technical achievements have always spoken for themselves, but increasingly its reputation is based on how the company works with others to achieve the best outcome for the customer. It does so by breaking down barriers and even striking up solid working relationships with its competitors to achieve the performance gains that posts need to remain competitive in the face of today's challenges and opportunities. In short, Prime Vision continues to thrive by being different. ■

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