



Finding your voice

On Tuesday, 17 November, representatives from Zetes and Vocollect, alongside several leading retailers and consultants, gathered in London to discuss voice technology, its impact in the warehouse and its potential in-store. *Retail Systems* was on hand to bring you the full review

The 90-minute roundtable (organised by *Retail Systems* and sponsored by voice big hitters, Zetes and Vocollect) took place at Sartoria in London's Saville Row. In attendance were: roundtable chairman, Paul Mason, CEO, Paul Mason Consulting (PMC); Raf Jezierski, marketing director, Vocollect; Jan Vermeesch, VP of multi-national accounts, Zetes; Scott Thompson, Editor, *Retail Systems*; Jon Parry, principal, consumer products & retail, Capgemini; Nick Skillbeck, programme manager, Argos; Simon Clarke, supply chain director, Asprey; Geoffrey Northcott from risk management consultants, The Loss Prevention Company; Doug Duffin, IS manager, Home Retail Group; Jonakee Chandra, senior business analyst, The Carphone Warehouse; Hayley Meenan-Wilkin, a consultant with a wealth

of supply chain experience - most recently director, client services at Williams Lea; Kate Daly, head of supply chain systems, Waitrose; Helena Dawson, logistics and supply chain, Musto; Johan Veestraeten, head of global logistics, Nike; and Gary Cannon, senior account manager, Computacentre.

Ahead of the key discussion points, *Retail Systems*' Scott Thompson began with an overview of the supply chain in 2009 and the major issues surrounding it. He identified three issues: the recession; globalisation and the increased competition this creates for retailers; and dealing with an increasingly complex supply chain.

"The recession has heightened the need to drive further cost out of the supply chain. You don't need me to tell you that it's been a tough year. However, I've recently

finished an end of year review and much of the talk from retailers and technology vendors has been of IT budgets opening up as we head into 2010. Set against this backdrop, the view is that retailers need technology solutions which support them through recovery and allow them to reduce their costs without compromising on their service to customers," Thompson commented. "In terms of globalisation, international retailers are coming to the UK - e.g. Bestbuy. Retailers need to innovate to stay ahead and technology is key to this."

"Finally, nowadays retailers must navigate an increasingly difficult landscape, taking in more SKUs and more global supply chains. *Retail Systems* often hears of flat inventories combined with high out-of-stock situations. At the same time, retailers must take into account the growing impact



"Retailers must take into account the growing impact of environmental concerns, new technologies and regulations. Innovation is key here."



of environmental concerns, new technologies and regulations. Innovation is once again key here," he added.

Thompson then handed over to PMC's Paul Mason, who posed the first key questions of the day: what business issues has the use of voice directed working thus far resolved? How are retailers looking at innovation as a major part of their business strategies? Currently, key issues include optimising the back of store area to ensure better shelf availability, improved availability of information, leading to better customer service. Are retailers constantly looking for ways to improve?

In a relatively short space of time (20 years to be exact), voice systems have evolved from a groundbreaking new technology into an industry best practice, implemented by a long list of companies including Argos, Morrisons and The Co-operative. Nike's Johan Veestraeten had a particularly interesting take on this - his organisation has been using voice extensively during the past couple of years and is currently rolling it out across the many territories it operates in. "When we first looked at voice, in the very early days, we were not convinced that the technology was stable and could be used in big distribution facilities," he said. "At the Nike facility in Belgium, there are about 1,800 employees, a lot of SKUs. When we started centralising all the inventory in one location in 1994, we were already using radio frequency (RF) directed picking, so from a technology point of view we weren't at the bottom, so to speak, but the technology was no longer adequate - it was narrowband technology and we had to move to new web technology."

In terms of business issues, error rates in picking weren't high but nonetheless evident and having an impact. "We work a lot with temporary employees during seasonal periods and getting people up to speed and productive with RF picking took quite some time. We were looking at three to four days before an employee would be up to speed," he said. "As far as voice directed picking is concerned, the



One of the key questions of the day was - how can retailers benefit from extending voice into their stores?

advantage today is that the error rate has reduced tremendously (now less than one per cent). It takes less than a day to get an employee operational. The equipment is very stable compared to RF terminals (where you have to factor in more repairs) so it is much more cost effective."

Nike also looked at speed and direct integration with the company's in-house warehouse management system, whilst flexibility was essential. "That flexibility we found with the solution from Zetes. We did a complete process redesign at the same time - we had a picking process and a replenishment process, those are now combined together."

Somewhat surprisingly, the company didn't come up against any union-related issues. "Belgium is a very union-oriented country so we were concerned, but there were no problems," said Veestraeten. "The way we approached it was that this was not an IT project, but rather driven by the business from day one. It was the people on the floor who ran the programme, making colleagues aware that it wasn't a cheap mobile, it was an expensive device. If you have 300 of those devices in your facility and you're dealing with low skilled workers, potentially there are disciplinary issues."

Following the pilot in Belgium, the technology was rolled out last year in the US ("there were different challenges involved - for instance, much more

competition, and from a language point of view we're using both English and Spanish. We tried the combination of a voice and RF based terminal, but went back to a single voice terminal") and next year the same solution will be introduced in China. "It's a case of different challenges in different regions."

"We are obviously delighted that customers are implementing voice across the globe and now have more than 1,200 warehouses live in 20 countries," said Jan Vermeesch of Zetes. "In every instance the anticipated value voice can add is proven with a quick return on investment (ROI)."

Voice has also been making waves in the grocery sector. Zetes has worked with The Co-operative Group on a project that has included a complete overhaul of the organisation's WMS system and migration to a wireless, real-time infrastructure at each DC. Voice was selected as the right technology to enable faster picking because of the speed and complexity of the Group's warehouse operation and high numbers of product lines stocked.

Meanwhile, Computacentre's Gary Cannon, who has been involved in the infrastructure side of a project involving Morrisons, reported that implementation is being conducted in phases and is scheduled for completion by 2010. Morrisons' solution is based on Zetes' 3i Voice software and over 2,000 Vocollect Talkman voice



Business issues that voice technology is successfully addressing include: productivity, accuracy and worker satisfaction.

computers. Once live, it will voice enable thousands of warehouse operators based at all the retailer's DCs, who have been working from a paper-based picking system.

During the pilot phase, Zetes implemented a voice picking solution in conjunction with 20 Talkman T5 wearable voice computers and headsets, which delivered immediate improvements according to Morrisons' project evaluation criteria. These benefits included improved picking accuracy, greater operational efficiency including ease of task allocation and the flexibility to meet the retailer's operational requirements, user-friendliness, the ability to support multi-lingual pickers of all levels of ability and the suitability of the system for freezer environments. In addition, Morrisons' management team wanted to improve the quality of real-time, business management information and enhance the reporting capability for legacy and Oracle WMS.

For Waitrose's Kate Daly, the drivers were somewhat different to those highlighted by Nike. The grocery giant was aiming for accuracy and warehouse performance measurement when it started to utilise a voice technology solution. It wasn't the smoothest of beginnings. "We hit the press - the Bracknell press, to be precise - with a story on how much the workers disliked it, which is not Waitrose's style so we had to take the solution out," Daly said. "There were several problems - the employees didn't like the

headsets, they didn't like the voice. We had a single female voice and they didn't want to be nagged by a woman whilst at work. So we took it out and had a major consultation period and we changed some of the system - we gave them different voices, a choice of headsets, a choice of languages - with this (non-Vocollect/Zetes) solution we speak English to them and they can reply in whatever language they want. It went back in again much more smoothly and now it has been accepted and it's a part of how we work."

Paul Mason then asked Vocollect's Raf Jezierski if he saw any business issues that voice technology was successfully addressing. He flagged up three main areas: productivity; accuracy ("this varies from industry to industry, but it's very important in retail, particularly in the pharmaceutical business"); and worker satisfaction. "You literally get happier workers as a result. Some people say that you get workers who appear to behave like robots. But actually it's a very comfortable way of working - people know what they're doing, they don't have to stop and look at a screen and they aren't struggling with a separate device. The fact that they're working in a very normal and natural way really improves worker satisfaction. And you can still have conversations with colleagues because the voice system only recognises specific key words."

Geoffrey Northcott of The Loss Prevention Company raised the issues of

health and safety and disability discrimination. Could, for instance, hearing be affected in the long term? Jezierski said that Vocollect had carried out several studies and the findings countered any such concerns. Nick Skilbeck of Argos backed up the argument that it works both ways in this regard: there are also health and safety etc benefits that come of the worker having his/her hands and eyes free. Nike's Veestraeten reiterated this point of view, stating that for his company the number of accidents in the warehouse has decreased as a result of voice implementation. "The potential problems and issues that have been raised here are not only related to voice," he added. "Dealing with change is always difficult."

Northcott continued with other interesting findings related to shrink. One of the companies he has worked with was looking at voice technology to increase accuracy in terms of delivery to its 180 stores. "A side effect of that would appear to have been a slight reduction in supply chain shrink, in terms of items going missing from the DC. We saw that for the first three or four months after they introduced it, although we're just seeing it creep up again, so we know it's being picked accurately at the DC but what's turning up in the store appears not to be as accurate," he said. "It would be interesting if we could find a way at the store end of checking what is picked in the DC. Most retailers don't check at the store. If it's picked



Is voice in-store more suited to certain industry sectors? And how can the ROI be calculated?

accurately at the DC, which is what voice is all about, then labour expended in-store is wasted labour. You want those people on the salesfloor, not standing on the backdoor counting the product in. But there is still a differential. Roughly 30 per cent of all shrink takes place somewhere in the supply chain, before the goods even get to the store."

Last word on this part of the roundtable went to Zetes' Vermeesch: "The implications for the user when starting to use this technology are very different than with traditional handhelds. There are a lot of people out there who don't know how to programme their DVD players. Ultimately when you look at a mobile terminal with all the buttons and menus on the screen, it's a lot more difficult than just entering into a dialogue and communicating with the system that way."

Beyond the warehouse

The discussion then turned to the second key question of the morning. As previously mentioned, voice directed technology is now into its second decade of use in distribution operations and is also being applied in a variety of other areas. The software for recognising human speech is becoming sensitive enough for noisier environments, whilst new headsets are being developed to be deployed within the in-store area, where they need to be less intrusive and can be hung around the neck when not in use. With that in mind, how can

retailers benefit from extending voice into their stores?

Argos is one of the retailers that has turned the traditional use of voice technology on its head. Argos' Skilbeck explained the driving force behind this move, namely that the biggest turn off for a customer is when they go into a store and find that an item is out-of-stock (OOS). "We are different to many other retailers in that we have mini warehouses on the High Street. If the technology works in the warehouse, it should work in the store."

Customers want excellent service (no OOS etc) and low prices. At the same time, they don't want to stop for a coffee at Argos. They want to get in and out, so speed of service is important. "There's something intrinsic about picking accuracy that ultimately flows through to the customer, so for us to move in-store was very much a natural progression. It was a question of identifying how we could take the improvements in serviceability into the stores," said Skilbeck.

Since introducing the voice solution, Argos has seen significant process improvements through reduced time to the final sale point. Previously, stores needed to put away products within each cage and then release the products for sale. Now individual items are released for sale as soon as they are put away. The retailer began working with Zetes on a proof of concept pilot to validate the business case for the initiative in 25 of its

stores, which took place during the peak trading period of 2008. Following this, Zetes was awarded the first phase of the integration contract and was subsequently successful in achieving the project objectives within half the original time forecast - a rate of 15 stores going live each week. As a result of this performance level, it has been appointed to lead a company-wide roll-out to all 740 stores.

"It was inevitable the market would turn this way because retailers have been seeing the benefits of voice solutions in their warehouses for many years," said Zetes' Vermeesch. "It was just a matter of time before innovative retailers like Argos began to seek ways of utilising the technology for other applications."

Depending on their size, Argos stores can receive up to two daily deliveries. The company is using voice technology to notify delivery assistants of where to store each product in their back of store warehouse. Working in this way has been proven to improve Argos' put-away process efficiency by up to 24 per cent. The technology has also enabled it to introduce line positioning in the stock room, allowing complete flexibility over the layout with fastest selling products to be stored closest to the customer collection points. It also means smaller stores have the ability to stock a greater variety of products because items can be shelved anywhere and easily retrieved without the need for delivery assistants to have detailed stock room knowledge.



It makes for a compelling case study but perhaps voice is not for all when it comes to the in-store environment. Jonakee Chandra of The Carphone Warehouse explained that her company had experimented with queue busting technology during the Christmas period, but she wasn't sure if voice would work well in stores where you have high value rather than high volumes. "In-store, we have four or five people who are highly trained and they have a lot of selling to do, so probably having a headset is not the best way forward. It could work in the warehouse, however. It could be very beneficial, particularly given the multi-channel challenge that we face," she said.

Best fit/ROI

Chandra's comments sparked off the next phase of the roundtable, namely: is voice in-store more suited to certain industry sectors? And how can the ROI be calculated? As the recession continued to bite in 2009, businesses across the globe looked for ways to cut costs and maintain profitability. Voice is an interesting option in this respect. UK retailers, distributors and supply chain logistics companies that have invested in voice picking technology are seeing efficiency gains of up to 35 per cent and ROI in less than 12 months.

Zetes' Vermeesch commented: "The returns achievable differ depending on the situation at the start, of course, but over time the market has learnt to appreciate that overall the benefits from increased accuracy are far greater than straight productivity gains." He said he felt very comfortable promising an ROI ranging from between eight and 13 months.

Vocollect customers Morrisons, Co-op and Corporate Express have all reported substantial cost savings using voice directed work within their warehouses. But, Argos aside, do the same rules apply away from the warehouse? Hayley Meenan-Wilkin stated that the technology had significant potential in certain industry sectors, such as those where speed to market is essential. Speaking from a fashion/clothing

perspective, Musto's Helena Dawson said that her company's business was very much paper-based although it did make some use of RF. "It would seem to be very effective at the high value end of retail, particularly in terms of the accuracy of picking. When it comes to the web environment, one of the key problems comes from getting a wrong product to a customer. Then you have all the reverse logistics issues associated with that and obviously the damage to your reputation in terms of customer service. So anything that can improve on-shelf availability and accuracy and especially stock integrity certainly has its applications."

Waitrose's Daly wasn't sure if it was a good fit for front of store in her company. "It doesn't sound straightaway that there is very much applicability in-store," she remarked. "Having said that, we're trying to put lots of information onto handsets in the shops, so when a customer asks a question, an employee finds a handset. Whether people wearing headsets could ask questions etc, is something I'm starting to mull over, although there is the question of whether people in-store would want to wear headsets."

Nike's Veestraeten didn't see this as posing a significant problem. "We are becoming used to people in the service industries with headsets (call centres, for instance) and from a technology point of view we're seeing them becoming smaller and lighter."

Ultimately, do customers care about headset-wearing members of staff if they're receiving excellent service? Asprey's Simon Clarke argued: "If it improves customer service, that counts for a hell of a lot more than people wearing headsets. You don't care if they're walking around with a martian's hat on, if you've got fantastic customer service," he commented. "When you look at ROI, you've got to look at customer service and whether you can improve that. Think of a shoe shop - it has a warehouse in the back of the store. There are so many SKUs. I

don't want to sit around for half an hour whilst the staff member is out the back looking for my shoes. Taking it a bit further, if you've got half full shelves, can you do something with voice to address that?"

Home Retail Group's Doug Duffin put a different spin on things: "In a multi-channel environment, you need accurate data. Otherwise you're going to have disappointed customers who go from the web to the store, having checked availability online. It's all about accurate data and voice is just another toolset in your armory for maintaining that. Whatever we can do to maintain that accurate data is a good way of driving improved customer service."

Whilst Paul Mason summed it up thus: "Most retailers' stock integrity for the store numbers is terrible. Forty per cent inaccuracy would not be a surprise to anyone, so there's a huge prize here."

Other opportunities

As online retail continues to register impressive growth rates, it is perhaps an area offering significant potential for voice technology. As Vocollect's Jezierski put it: "It would be appropriate for online orders which are picked in-store."

Capgemini's Jon Parry continued with this line of thought: "We're finding that more and more customers are doing research online, so often they're better informed than the store colleagues. So we're in a position where, if we can deliver information to those colleagues that can help them sell or provide great service, it's increasingly important. And that's not an easy thing to do. It may be that there's an application for headsets there - perhaps not voice directed working but delivery of information."

In terms of other opportunities, Zetes' Vermeesch remarked: "We're currently involved in a trial with a European retailer where people are driving to the retailer's store - they have an interface where they can input their order and there is a promise from the retailer that, whilst they stay in their car, within x minutes someone will



bring all the goods to them.”

The Loss Prevention Company's Northcott identified another interesting potential use of the technology at store level, when referring to one of his clients, an international bookstore. “We have 25,000 - 45,000 sq ft stores with generally between 300,000 to 400,000 units sitting on the shelves, most of which are ‘onesseys’ and ‘twoseys’...you tend not to bulk buy. So it's a huge logistical challenge, especially at this time of year when customers come in looking for specific books,” he said. “One of our struggles has always been that the customer comes in and says, ‘I'm looking for the latest Sherlock Holmes book’ and the greeter gives the wrong direction information. A few years ago, one US bookseller did an exercise where they had overnight staff who were literally employed to re-shelve and put everything back where it should be, because customers will pick something up from here and put it down over there, but when they did the maths behind it, the sums didn't quite add up even though there was a sales uplift as customers were finding what they wanted. Is there an application at the store level where the greeter can ask the question and the system says whether that item is in the store in order to direct the customer?”

“When you think about it, the customer is the ultimate picker,” he added.

“Multi-functional devices are an interesting option in this respect.

A display of some sort - either integrated with a handheld device or attached to a voice unit - might be helpful, particularly in the book environment,” Vocollect's Jezierski suggested.

Paul Mason noted that he had recently come across an interesting example of an American retailer trying to address the aforementioned problem, albeit with slightly different solutions - “using somewhat crude voice technology for the customer whereby the customer would dial a 1-800 number on entering a store, saying ‘I'm looking for x’ and they would get a text back telling them, ‘you'll find x in aisle three’ along with promotional vouchers. A case of getting the customer engaged.”

Ultimately, a major challenge lies in the fact that the store and the DC have different objectives. “The objective of the store is to sell, sell, sell, whatever the cost. And the aim of the DC is service at the lowest cost, where you look at productivity and accuracy,” said Nike's Veestraeten.

“All the benefits are there to enable a roll-out to the store. But there are challenges. Rolling it out in a DC, you're looking at a ROI within less than 12 months. Rolling it out in-store, perhaps much longer,” he added.

The roundtable then drew to an end, with Paul Mason commenting that he would take away the following key points from the event: voice technology can improve stock integrity and produce happier, more productive workers,

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but don't underestimate the cultural issues that can arise when staff members first encounter it. There can also be union and health and safety issues to confront. But it needn't be a negative experience. Addressing the human side of the equation boosts the success of a voice deployment. At the same time, the in-store environment is a different beast - there is considerable potential here as Argos are demonstrating but perhaps the technology isn't for all retailers.

Overall, though, there are a wealth of opportunities. Much of the roundtable focused on the DC, but upstream there are manufacturers and downstream there are retail outlets and Zetes and Vocollect expect to see the technology expand in both directions.

The future of voice is, it seems fair to say, assured.



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