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# WHAT TO WATCH IN

# 2006

WHICH NEW TECHNOLOGIES WILL CIOs BE APPLYING IN 2006?  
CIO CONNECT SPOKE TO THREE WHO HAVE PLENTY OF CHANGE IN VIEW

**“T**here’s no doubt that all of these technologies have fantastic potential,” says Gary Mudie, IT director at fast-growing UK stationery chain Paperchase. He’s talking about flexible working and advanced collaboration tools that are likely to turn his business upside down in 2006. “But they have to be approached sensibly,” he adds.

Indeed. It’s about this time of year that the major market analysts start vying for press attention, with their informed predictions of the technology hotspots for the year ahead. But what’s happening in the real world? Are CIOs throwing out their traditional voice services to embrace Skype? Will instant messaging and blogging become topics for the boardroom? And will businesses the length and breadth of the country be outsourcing their software development to India?

There is no doubt that CIOs are planning a raft of changes as they look ahead, but each has a unique agenda. To start with, Paperchase makes an interesting case study. Although not a vast conglomerate, the 30-year-old company, which has more than 70 UK retail outlets, is growing and changing at quite a pace thanks to its acquisition by US bookstore giant Borders last year.

Mudie’s remit has already swollen to embrace international operations, which include three overseas outlets to date. Demonstrating the perceived strategic value of IT to the business, Paperchase recruited Mudie – who sits on the board – for his background in retail, not IT.

A major focus currently is introducing more structure and standardisation across the business, specifically in relation to how the supply chain is managed. “This has to be on a continual evolutionary cycle, because new technologies are coming out all the time which we may want to embrace,” he notes.

When Mudie talks about the supply chain, he means the entire IT infrastructure that extends from the customer at the EPOS system back through the warehouse and into each of the company’s suppliers. “We’ve just done a whole system replacement and put in a VPN to support it,” he says. “Our plans for next year are to begin to exploit this seriously.”

Taking advantage of a Skype-like VoIP service features heavily on the agenda. “Using an Internet telco would be a good start,” he enthuses. Given Paperchase’s geographically dispersed operations, and its rapid growth projections, perhaps this shouldn’t be so surprising. The potential savings associated with having free internal, cross-location calls could be substantial. But it’s interesting to hear Mudie so certain about VoIP as a project with immediate potential.

Central online credit card authorisation has further appeal. “A lot of retailers clear funds from the store to the bank and incur call charges for that,” he explains. “With a centralised online facility, we’ll be able to go direct from one unit to the bank, vastly reducing the number of individual calls that are made. This will be increasingly important as we continue to expand.”

Meanwhile, Paperchase has just implemented radio frequency-based technology in its warehouse, enabling real-time stock information to be provided to stores and managers over wireless links. “I think this whole area and GPRS and GSM has huge potential when it comes to identifying where products are,” Mudie says. “It means we can all be more efficient and responsive.”

This will be critical now that Paperchase plans to exploit the internet in earnest – a medium it has avoided until now. “The trouble with having multiple channels is that it introduces stock issues,” Mudie explains. “We don’t want to end up in a situation where, because someone has bought something online, stock is no longer available to a store.”

But now there’s no escaping the reach of the Web. “With broadband now so reasonably priced and being so heavily promoted, a lot of homes will have it by 2006, making this a channel we can no longer afford to ignore. Retailers are looking a lot at customer channels at the moment, especially introducing more interaction between them so that customers could choose to buy online, but collect the item from a store on their way home from work, for example.”

So what about giving staff more options? Although the retail environment isn’t known for letting employees work family-friendly hours, Mudie notes that Paperchase’s managers are benefiting hugely from the roll-out of Blackberry e-mail devices last year. “This was a very simple project, but it’s been life-changing for our area managers,” he says. “Before, they were bound to an office or Internet cafes to be productive and stay in touch – now they can do everything while on the move. This is probably the technology that has had the biggest impact on the business.”

That being the case, Mudie now wants to explore the portability of more business applications, specifically those providing critical management information. Already, Paperchase sends daily sales snapshots by e-mail to managers each morning, so they can see at a glance the performance of stores from the previous day as they prepare to leave for work.

“Our next focus will be more detailed management information reporting, and CRM-type data,” Mudie says. “Mobile technology has come a long way now and is very stable. There’s a lot more we could do here.”

At Netherlands-based Mittal Steel, now the world’s largest steel company with an annual turnover of \$32 billion following a spate of mergers and acquisitions in 2004, IT plans are no less ambitious, despite the manufacturing

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industry's reputation as being slow, conservative and generally lacking in budget.

Leon Schumacher, the company's global CIO, currently has his work cut out trying to consolidate the IT systems and distinct ways of working of the many companies that make up the business today. A key strategy is to standardise – from the infrastructure, networks, e-mail systems and firewalls, to the ERP software and manufacturing execution systems used across the group.

Schumacher has a global IT team of around 140 people to help him mobilise this plan. A corporate-level IT governance function will oversee the work, setting standards and defining best-of-class products that need to be implemented throughout the international business.

Given that many of the companies Mittal has recently acquired are in countries where business and technology are less well developed – such as Algeria – the first task is to make sure every operation is gradually brought up to the same level. The ability to take best practice from one part of the global business and showcase it elsewhere, is critical in this process.

Mittal has just done a deal with a help desk service provider so that it can support all regions from a single central managed facility. This will help the group build up a central repository of common incidents and solutions. Mittal has bought a special knowledge-sharing software tool that will enable this information to be collated and shared – it is currently translating local language interfaces for each of the different countries.

“Knowledge management and sharing is very important to us as a company,” Schumacher notes. “For example, we are the biggest blast furnace company in the world now so if an issue arises in one country, the chances are we will have already identified a solution in another country. We want to be able to harness that knowledge easily.”

At the moment, Mittal has a single Active Directory for the group. Now it is looking at Microsoft SharePoint as a means of publishing lots of different types of knowledge information across the group. “This would be a more user-friendly way of doing it than the way we approach it now,” Schumacher says. “We would be able to set up different online communities for different business units, such as finance.”

Having a central data centre is an important part of the strategy, then, too. As well as allowing systems and resources to be consolidated, it means knowledge can be centralised for maximum global availability. This, in turn, places much importance on the global company network. “This has become very important,” Schumacher notes. “We are in the process of establishing a single global MPLS infrastructure which will provide a single route to the internet, a single centralised firewall and so on.”

The quality-of-service (QoS) assurances provided by MPLS will be critical in ensuring the performance of essential business applications such as the preferred SAP ERP system, and “probably some voice traffic”. Indeed, Mittal is another business which admits to being highly intrigued by the potential of VoIP in the near rather than the distant future, because of its potential for cost savings.

“VoIP will be a very big and interesting topic sooner or later,” says Schumacher. “We will probably see some pilots and tests in 2006 to see how we can optimise it for lowering call costs. I’ve been playing with the technology for a while, and I like the fact that I can go anywhere and my phone number follows me.”

In the public sector, the recently formed Independent Police Complaints Commission (IPCC) is another organisation that will be looking ahead in 2006 and developing its infrastructure. Being in the fortunate position of having no legacy infrastructure to hold it back when it formed in April 2004 (replacing the Police Complaints Authority), the IPCC has been busy building and exploiting a nationwide IP-VPN WAN and IP telephony system, which it

# OFF THE WALL

## SOME OF THE MORE UNUSUAL TECHNOLOGIES CIOs MIGHT CONSIDER USING IN 2006

sees as the foundation from which it will meet its goal of improving upon the performance of the PCA.

The IPCC operates from five locations around England and Wales. Staff are primarily investigators and caseworkers, backed up by a modest support team. They handle around 700–800 cases a year. Priorities of the new organisation include providing local resources throughout the country, and enabling remote teams to work together productively despite their physical distance.

As at Mittal, this has placed an emphasis on centralised resources and the ability to collaborate and share knowledge with remote colleagues. This has been made possible via an IP-based VPN.

An IP telephony solution being run over the network not only cuts call costs between remote colleagues, but provides important flexibility for roaming workers. Phone calls, messages and faxes can follow staff wherever they go, without investigators having to dial into a remote service to pick up messages. Meanwhile, Citrix thin-client IT systems, used to deploy applications to users at regional offices and remote users, provide a centralised Microsoft Exchange environment, enabling regional and remote workers to retrieve voicemail locally wherever they are.

Because of the network's traffic prioritisation capabilities, the IPCC is also making good use of videoconferencing, to enhance remote team collaboration and unite the dispersed regional offices to ensure rapid results and a consistent service.

Says Steve Gediking, the IPCC's head of IT: "Every fortnight, we have a CEO update briefing by videoconference. The CEO and others stand up in front of all the staff to give updates on key cases. With the videoconferencing option, everyone in the organisation can gain access to the briefings, not just staff at the head office in London."

The facility is also used for Commission meetings. "These are open meetings, that can be viewed by the public," Gediking says, noting that when the day of the Stockwell shooting incident coincided with a Commission meeting, which the chairman suddenly couldn't attend, he could still participate in key discussions via video link.

During 2006, Gediking is keen to further develop the remote aspect of the network using broadband or 3G communications, as soon as this has been Government approved. "We have a lot of mobile workers, and it fits with our core values as an organisation – we have set out to be a family-friendly environment, which means ensuring that employees attain a good work-life balance."

Another parallel with Mittal is the desire to focus on knowledge management. In the IPCC's case, this is in the area of customer self-service. Says Gediking: "We want to continue our work under the eGovernment initiative, by providing more easily accessible services for our customers. We hope to procure an integrated knowledge-based access solution so that a complainant can easily look up our guidelines, check we are the right people to handle their particular issue, quickly establish what to do next – and then do it. We'll have a CRM module too, so we can keep track of all those who've had IPCC input – so that, if there is a police complaint, and the same person also happens to be a witness, we can see that on the system."

Gediking says the joined-up approach that the CRM could make possible is what excites him the most for next year. "Everyone will know what's going on elsewhere in the organisation, and that's critical for good customer service and better productivity," he notes. As the IPCC's remit grows to encompass investigations relating to HM Revenue and Customs, the Serious Organised Crime Agency, and the UK Immigration Service, being able to keep track of activities and use resources efficiently will be more important than ever. ■

### ROAD RUNNER

A new sensor device/roadside communications system, being developed by UK businesses (including BAE Systems) with support from the DTI, promises to give car drivers access to both traffic reports and entertainment via high-speed internet access, while alerting them to traffic travelling in front and behind them. The technology, which combines pencil beam radar, radar cloud and car-to-roadside communications, is believed to be the first solution to combine radar and telematics. Manufacture of the first prototypes will start later this year and will be followed by testing in 2006. Jaguar is an advisor to the project.

### MOVING TARGET

Autonomy's IDOL mobile technology allows mobile phone providers to deliver targeted multimedia content to customers. The angle for businesses is that it enables corporate users to search and access corporate information from their handheld devices. Autonomy believes the future lies in targeted search and messaging that delivers accurate wanted content to the user rather than ad hoc irrelevant information. IDOL learns about a user's interests to create a detailed profile which can be tweaked over time.

### UNDER A CLOUD

The Cloud, a provider of WiFi access, has just signed a deal with Skype to provide cheap WiFi access that, it claims, undercuts everyone else and "mobile" Skype. Instead of users having to sign on to Skype with their laptop and PDA, the mobile solution automatically senses when a WiFi hotspot is in range and signs them on. As there is an "all you can eat" WiFi package with unlimited access, this is like having a mobile phone that lets users make free phone calls wherever they are.

### BLACKBERRY JUICE

Sirenic is another mobile e-mail contender that's out for Blackberry's juice. Claiming that it costs two to three times less than Blackberry, Sirenic's MobilePA solution is available to virtually any device with Internet access (such as a mobile phone, smartphone, PC, laptop or PDA), so users don't have to fork out for an extra gadget. MobilePA provides e-mail that is fully indexed, prioritised and archived (with a capacity to store up to 10,000 e-mails per user), and provides additional functions such as the ability to reply to e-mails verbally, enabling the user to access and respond while driving for example.

### NOT SO SIMPLE

A data warehousing appliance that combines server, storage and database all in one, is taking the US by storm, so 2006 could see a flurry of similar activity in the UK, if vendor hype is to be believed. Netezza is just one player that claims it is stealing market share from the likes of IBM, Oracle and Teradata. What's the advantage? Cost apparently. Oh, and performance. And ease of use. Phew. Enthuses Netezza: "Time isn't spent running queries and maintaining the database; it's spent leveraging business intelligence to make smarter business decisions, ask better questions and, ultimately, make more money." If only life were that simple...