



Cloud computing is here

Cloud-based solutions are already making a difference on the shop floor today, but misconceptions around cloud computing are still holding businesses back from realising its full potential, says Wladimiro Bedin

Cloud computing is now a widely accepted term and most have an understanding of what it is and the benefits it has to offer, so why are retailers and companies across other industries still reluctant to use it? For many, concerns around security and service quality are holding them back from taking advantage of the cloud, which means that when it comes to managing mission-critical processes such as operations at the point of sale, most would still prefer an in-house IT solution.

At BEDIN Shop Systems, we believe that the majority of concerns around cloud computing originate from a pre-internet view, whereby businesses are caught up in the thinking that software solutions for the retail market, even when delivered from the internet, must remain inside either traditional centralised or departmental architectures. When hosted on premise or in a public or private cloud, centralised architectures come with inherent shortcomings and are limited by redundant lines and/or back-up systems. And because a departmental architecture requires frequent synchronisation between different databases, a real-time, connected business is almost impossible to achieve. In both instances, slow provisioning and limited scalability, plus high costs and complexities are common.

The post-internet paradigm, however, is based on standard web services and an open application programming interface for easy integration across geographies and software platforms. Here, software as a service (SaaS) should be based on a multi-tenancy environment (the sharing of code and resources across organisations), to deliver evolving services to a large number of users, with high service level agreements (SLAs) and at a low cost.

The first and simpler level of public cloud computing, also referred to as infrastructure as

a service (IaaS), is an evolution of virtualisation, but scalable and fault tolerant SaaS still requires additional middleware, adding complexity and lowering total SLA. This is why modern platform as a service (PaaS) models like Windows Azure, which ensure a clear distinction between infrastructure and application software, are so enabling.

Because of these reasons, our aKite solution is designed to take full advantage of Windows Azure and comes with the ability to integrate with any enterprise resource planning system or application on premise, allowing retailers to manage their operations both on a global and local level. This means they can keep sales logs and stock data in the cloud, and keep local operations on premise (embedded in each POS), allowing for seamlessly connected and disconnected operations.

One common misconception about the cloud is that it can be used only through browsers or thin clients with fast internet connections. Rich internet applications (RIAs), smart clients and the new HTML5 standards, however, are all designed to get the best from current hardware to create a richer user experience and allow for disconnected operations. Our smart client-based POS.net solution responds instantly to scanners and can read and manage multiple peripherals directly. Synchronisation based on compressed XML messages on bidirectional queues can easily handle traffic peaks as well as any intermittent connections that a mobile POS or store with poor connectivity may suffer from.

Another concern raised by retailers about running their POS operations using an SaaS model is that it will limit their ability to customise applications for their specific needs. While automatic deployment, continuous evolution and low cost favour parameterisation versus customisation, today, new, open and standardised technologies are facilitating

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the creation of new specialised clients, integrating with whole subsystems without having to overcome the language and architectural constraints of a traditional system. Furthermore technology developments like Microsoft Dynamics allow companies to choose which parts of their systems they want in the cloud and which they want to keep on premise. And aKite integrates with both environments, allowing for true flexibility and easy customisation.

As the market matures and perceptions towards the cloud change, an increasing number of businesses will begin to trust in it as a viable and secure IT supply model. It has been proven time and time again that those who take advantage of the next paradigm shift in technology gain a competitive edge. Cloud computing is that next paradigm shift; it is the next evolution of IT.

Wladimiro Bedin is president and founder of BEDIN Shop Systems, which develops software solutions for the retail market



An integrated approach to multi-channel

Peter Leith offers tips to help retailers meet customer demand, increase profits and build brand awareness with a cohesive cross-channel strategy

There's no denying it: the emergence of new selling channels has changed the face of retail. Online, mobile and now social media channels – like Facebook, Amazon and Groupon – will not simply fade into the background. E-commerce makes it easy for consumers to browse their favourite retailers' websites 24/7, and the ability to make purchasing decisions and read product reviews even faster with the proliferation of smartphones, tablets and online retail apps is fuelling the m-commerce fire.

Research from Retail Systems supports this shift: 89 per cent of retailers realise their multi-channel customers are their most lucrative ones. Not surprisingly, this same study indicates that more and more retailers are starting to understand that the customer's ability to review and make a selection online can drive business in bricks and mortar stores. Additionally, a Google survey of American consumers found that mobile shopping grew more than 200 per cent from Black Friday 2009 to the same day in 2010. It showed that 59 per cent of smartphone owners used their devices for holiday shopping last year. Of those, 80 per cent used their mobile devices to research products and then headed into the store to buy them.

As shoppers are getting more sophisticated, new selling channels continue to crop up – and retailers must keep pace. What's perceived to be the 'best deal' may be different from person to person – some value the ability to pick up products in store, some want free shipping, while others need to know they can return an online purchase at a store near them. There is a bonus to this complexity: retailers are realising that the costs associated with growing their customer base through online channels is significantly less than the resources required to open new physical stores.

Retailers must then go to market with an integrated multi-channel retail planning approach. The key word is 'integration' – and that means building well-planned links across selling channels to increase brand presence, grow customer loyalty and maximise sales.

JustEnough Software offers the following tips to help retailers achieve this goal:

Analyse demand within each channel. Accurately evaluating demand across all selling channels will provide insight into which products are the most and least successful – whether it's through their social media presence, e-commerce site or in stores. As a result, retailers can put together a cohesive, cross-channel planning strategy that will impact all aspects of the business – from merchandising to operations and finance.

Place importance on effective assortment planning. Some experts think assortments apply only to more traditional selling channels. But they are actually defined as getting the merchandise mix correct – regardless of the channel. Understanding the nuances between online shoppers, those who rely on social media to make decisions and consumers who prefer to shop in the store – or any combination of the three – is crucial to creating assortments that will appeal to the retailer's mass customer base.

Centralise inventory management. Avoid segmenting stock by channel; holding inventory together in the warehouse enables retailers to meet demand across any channel – gaining the confidence of their consumers and maximising sales. Having the flexibility to send stock where demand dictates lowers excess inventory at the end of the season, and decreases inter-channel stock transfers and the need to reduce prices to offload it.

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Leverage pricing and promotional opportunities. Some research indicates that pricing and promotional inconsistencies between a company's mobile and online channels and their bricks and mortar stores can annoy shoppers. But is it possible that discrepancies in pricing and promotional adjustments across channels could actually drive foot/click traffic? Would doing so help retailers offload unwanted inventory for the highest possible prices? It's a scenario worth exploring in today's multi-channel retail environment.

Savvy retailers know technology is their ally when it comes to presenting customers with a seamless, consistent and enjoyable shopping experience – regardless of the channel. Retailers should look for planning systems that can help them present a single brand image across all channels, building customer loyalty and maximising profitability.

Peter Leith is director of product strategy at JustEnough, a global leader in demand management solutions