

Retail executives are already struggling with omnichannel commerce and being further challenged to define the points of demarcation between what are viable and practical investments and what aren't. When it comes to the cloud and hosting, its application spans several functions and disciplines. Over time, it's likely to touch every aspect of a retail operation.

Cloud hosting is a very broad term and means something different to each person depending on how being engaged. One authority cites cloud hosting as a model that offers users access to their applications from anywhere, using any connected device. Another defines it as hosted IT services, platforms and infrastructure that are shared, delivered and distributed through the internet. Yet another defines it simply as a platform that allows users to obtain computing capabilities through the internet.



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Regardless of the specific attempts at definition, cloud hosting services do share some conceptual characteristics including investment, speed to delivery, availability and scalability. For retailers, it provides an opportunity to focus more on the business and less on technology with services centered more on the price, availability and the experience they get from the investment. Cloud resources may reside in one physical location or, as often the case, they may be distributed across several locations.

## The Cloud as a Platform

Retailers always have competing priorities for capital investments – to support growth by adding stores or support growth by building infrastructure. When top-line revenue competes with infrastructure for scarce funding, it's often the infrastructure that loses. Whether it's the covenant limitation in the retailer's revolving line of credit or simply a lack of budget dollars to support a needed initiative, IT leaders are continuously challenged to support company objectives with fewer resources.

Finding and maintaining an IT staff can be an issue for many retailers that put additional strains on resources. Cloud hosting and systems management services help to remove this issue from the retailer's responsibility. These challenges are common to start-ups and Fortune 500 companies alike. Facing a necessity to tighten budgets, do more with less and continue to manage through difficult economic times, retailers are turning toward new ways to invest and support their initiatives without intense capital funding requirements. Instead of investing in and maintaining its own set of servers, networking and communications gear, bandwidth, security appliances, storage and manpower to support it all, retailers are making use of cloud hosting services.

Retailers are migrating platform needs to outsourced hosting providers that can supply the physical and virtualized environments. The platform and associated components can be provisioned as a "dedicated" set of resources or a "shared" set of resources depending on the retailer's need. There are a growing number of cloud providers that offer end-to-end platform solutions, not just the hardware and supporting components but the support services aligned with the retailer's needs for system support and administration, availability and reliability.



In addition to lowering the capital investment in infrastructure,

cloud hosting services offers a number of other benefits in maintaining a low-cost solution. Most solutions are reasonably transparent in terms of what services are specifically offered. Storage, bandwidth and the number of servers – virtualized or otherwise – are usually known variables at the time an organization subscribes to the service. Less effort must be placed into capacity planning as these components can be scaled upon demand to support growth. The cloud provider takes more responsibility for ensuring high availability and resilience of the infrastructure.

Although baked into the fees, the cost of the environment such as power, air-handling, temperature control and fire suppression are borne by the service provider. This includes security and related controls to ensure data and access to it are properly protected. Collectively, this infrastructure provides significant elasticity, seemingly to present a bottomless array of resources the retailer can rely on as its business grows.



## The Cloud as a Source for Applications

The cloud offers an alternative platform for a retailer's critical technology services and applications. Retailers can certainly look to the cloud to host their legacy systems or new system investments. However, the cloud extends not only to the infrastructure platform but to specific applications as well. Practically any application can be hosted within the cloud on a cloud-based platform. However, individual applications that are specifically designed, marketed and offered through the cloud are becoming the norm. These can be ERP applications that provide end-to-end functionality, or they can be stand-alone best-of-breed applications offering a narrow niche of functionality.

## **Supporting Components**

When retailers evaluate their total cost-of-ownership, a compelling case can be made to easily move many of the office-automation and email services to the cloud. Equally, if not more important, are the business intelligence needs of the organization. Sophisticated payment processing gateways that handle not only credit cards, but can accommodate private-label credit, gift-card processing and loyalty programs are being based in the cloud. Tax engines that handle both local and international tax transactions in some cases are only cloud-based. Many of the marketing services such as CRM, direct marketing and campaign management are cloud-based offerings.