



RETAIL SOFTWARE EVOLUTION THROUGH CLOUD PLATFORMS

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Pioneering the SaaS and Cloud computing space

In the last 20 years, software-as-a-service (SaaS) and the rise of Cloud computing are the most significant developments in how information technology and services are created, delivered, and accessed. In terms of their impact in how we understand and consume information technology, the IDC liken these developments to milestones such as the commercialisation of the Internet, the advent of Java, and the growth and standardization of the World Wide Web (URLs, browsers, HTTP). In particular, recent research findings highlight SaaS market momentum - 85% of the top business application software vendors (ISVs) interviewed, already deploys or plans to deploy their applications in a SaaS model - leading them to predict that by 2016 up to 20% of all ISV business applications offered will be in a SaaS deployment.

Furthermore, the IDC contrasts the stagnant 6.24% compound annual growth rate (CAGR) for all software during 2008-2012 with that of the overall market for Cloud computing. By 2012, the Cloud market is expected to grow from an already sizeable \$16.2 billion to \$42.3 billion - an impressive 24% CAGR. Pervasive system availability and connectivity (a characteristic of grid-computing through the Internet and Web) is largely responsible for establishing the foundation of these evolutions. Together they provide numerous strategic and tactical benefits, including IT decapitalization, accessibility, business agility, scalability, and cost-effectiveness. In a climate where IT organizations are asked to do more, numerous efficiency-related case studies are emerging as software gets deployed and serviced on multitenant, dynamically scalable platforms.

This translates into a high-growth market opportunity for the UCS Group with its rich hosting/computer bureau history.

The future of business processing

Business processes are widely considered to be key enablers of competitiveness within an increasingly dynamic marketplace. According to Gartner, Forrester, IDC and DataMonitor, the business process management (BPM) market is one of the fastest growing software markets, moving at a blistering pace of around 30% CAGR. Business processes must be able to change rapidly, and this can only be achieved through business process management systems (BPMS) that enable defining, visualising, and deploying such processes dynamically. As Howard Smith and Peter Finger optimistically stated, "BPM doesn't speed up applications development; it eliminates the need for it." Historically, business applications created stovepipes that were separated by function, time, and the data they used. Instead, the process in BPM refers to a holistic view of the enterprise, which incorporates employees, partners, customers, systems, applications and databases. This also serves to extract the full value of these existing assets in ways never before possible.



For a system to participate in a BPM process, services or functionality must be externally accessible. For this reason, a SOA is often considered a prerequisite for BPM, as SOA is fundamentally about exposing services in a way that enables them to participate in higher-level collaborations. SOA is gradually emerging as one of the preferred approaches for systems design, development and integration. Leveraging open standards and the ubiquity of the Internet, SOA is premised on the notion of reusable services that correspond to self-contained, logical units of work that constitute a Service Component Architecture (SCA). The SCA promise is that these services can be quickly pieced together using common patterns to form new applications that are tightly aligned with the needs of the business. As an example, a retailer may have a tax service that takes a product category, price, and sales location and provides tax information needed for the item. Other examples include a pricing service, a customer service, or an inventory service.

The combination of SOA and BPMS allows business users to design applications using a Lego-like approach, piecing together software services, both internal and external to the organization, one-upon-another to build a new higher-level solution (often referred to as Mash-Ups, another fast growing software niche market). In reality, it's obviously not quite so simple, but skilled business analysts can use the visual design and simulation tools for rapid prototyping.

Many ISVs create domain-specific applications, industry-specific add-ons to enterprise resource planning (ERP) systems, or independent ERP systems for local markets. They rely on a stable deployment platform and — except for the largest global ERP vendors — they do not like to invest heavily in developing their own platform infrastructure (or middleware). Forrester Research predicts that 30% of SaaS-based business applications will still be delivered on proprietary or home-grown (often acquired and integrated) platforms and that 70% of all SaaS business applications will potentially use a third-party deployment platform underneath the customer-facing application.

Moving forward

The UCS Group has a proud history as a supplier of on-premises software, solutions and services within the Retail Information Technology market. Today, as a result of consistent growth, the majority of South Africa's largest retailers are customers of UCS with our software solutions and services touching over 20m South Africans every month across 15,000 stores, 100,000 points of service and over 50,000 secure terminals, leading to the switching of over 53 million transactions per year.

The UCS Group made significant pioneering investments towards establishing its CMMi certified retail software factory - a first of its kind. The factory spearheads the transitioning of software, from historic handcrafted one-of-a-kind solutions towards automated manufacturing of large varieties of software, which benefits from economies of scale and scope, through its unified intellectual property (IP) management, and model-driven development practices. The Group recently announced its intention to enlarge this software factory through the consolidation of ownership, management, development and commercial exploitation of the balance of its software/IP assets within this business unit.

Through this initiative and the collaboration agreement with Cordys, UCS will be able to focus its 300 retail-specialised software engineers on retail application (or ERP) development, whilst being able to exclusively utilize the platform/middleware efforts of the 300 Cordys platform-specialised software engineers, within the global retail market for application software.