Survival of the fittest

As technological innovation continues to sweep all in retail before it, legacy management and transformation is becoming an ever-more critical part of business life.

Enterprise evolution is an emerging space that simplifies legacy transformation and integration by applying evolutionary principles to legacy systems. *ERS* spoke with Kevin Barnes, Chief Executive Officer of eCube Systems LLC, to learn more about enterprise evolution and the new offering it brings to the retail space, Evolution On Demand.

ERS. Your company talks about enterprise evolution and 'Evolution on Demand' – what do those terms mean and why is it important to the retail industry?

KB. Enterprise evolution is an approach designed to give technology managers more flexibility in dealing with legacy assets. By applying evolutionary principles, the value of legacy systems can be maintained and enhanced via functional modernization, which enables more of IT's limited resources to be spent on new capabilities.

Evolution on Demand is an eCube offering that implements enterprise evolution at the client's pace. It combines integration and transformation in a just-in-time fashion. Rather than entirely rewriting or replacing enterprise applications, Evolution on Demand separates large modernization projects into smaller, more manageable and affordable tasks that can be completed simultaneously or on an as-needed basis.

ERS. How does this apply to the retail industry?

KB. Retail companies now understand how an investment in their IT systems can drive down costs through effective inventory and supply chain management. Here's an example. Technology costs have dropped and retail companies large and small are in a position to capture valuable inventory information at the point of sale (POS). Using XML and the internet, POS data can be shared with the suppliers using collaborative planning, forecasting and replenishment systems to manage inventory and avoid overstocking and stock outages. This new process recovers lost sales and avoids misapplied capital investments.

The problem is that existing retail IT systems have not been designed for this type of computing.

ERS. That's a real issue the industry is now starting to address...
KB. Right. It's one of many. Real-time availability, both for processing and data visibility, is also a big issue. The ongoing business requirement to breakdown the walls between applications is a major issue, one that's even more acute at the functional level. Business functions within old stove-piped applications need to be modernized so the business processes they serve can evolve as quickly as the market dictates.

While they may work well, these legacy systems lock in existing business processes and prohibit change. Money has been spent to enable integration with partners, but internal systems still don't provide actionable information and the agility that new technologies (such as wireless, self-service, XML and RFID) require.

Cost and risk make it unlikely that retail technology managers will opt to rewrite, transform or integrate all of their applications at one time. Even one application is a challenge. What is needed is an approach that employs evolutionary principles at the business function level.

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ERS. What do you mean when you say evolutionary principles? Survival of the fittest?
KB. In some ways, yes. The focus of Evolution On Demand is on business functions, not applications. In our model, business process components are segregated into two groups: legacy business functions that will be immediately transformed – the most immediately useful corporate 'genetic' code – and those legacy business functions that can co-exist, integrate and evolve over time. For functions in need of immediate transformation, Evolution on Demand applies an assessment, remediation and modernization (ARM) process fully transforming legacy components to contemporary platforms like JAVA, J2EE, C# and .NET.

ERS. How is Evolution On Demand different from other transformation solutions that retailers are looking at or have already started to implement?
KB. The key difference is the integral combination of targeted evolution, On Demand Integration and the lightweight glue that makes it possible – the NXTware Evolution Server. On Demand Integration and the NXTware Evolution Server allow existing and evolved business functions to work interchangeably with legacy and contemporary components. Using the Evolution Server, legacy components that are not immediately transformed are exposed as contemporary services (SOAP, J2EE, .NET) that seamlessly interoperate with new, modernized business logic and contemporary platforms.

From a business point of view, the primary differentiator between enterprise evolution and other solutions like COTS and EAI is cost and scale. The retail industry has always had to deal with low margins. The hidden costs of ERP and EAI – retraining, certification and functionality gaps – can't be ignored. Most retail companies don't have the staff or the time required to take on a big integration project or to replace an entire system, but they do have the means to evolve on demand.

In practice, this means retailers can save money by linking legacy and transformed components as they go – freely swapping out legacy functions for transformed functions as needed.

ERS. Is this approach based on or compatible with industry standards?
KB. The Object Management Group (OMG) is developing similar solutions within its Architecture Driven Modernization (ADM) Task Force. They're creating a process to understand and evolve existing software assets. eCube is a charter member of the ADM Task Force and we are implementing ADM methods within our Evolution on Demand process.

Additionally, we believe that the best way to create business agility is by creating functional agility. To do so, eCube has implemented support for the Enterprise Service Bus standard in the NXTware Evolution Server, which enables legacy and contemporary services to leverage any messaging backbone. Our emphasis on the loose-coupling of legacy and contemporary functions works very well within the Enterprise Service Bus model.

ERS. How about retail industry standards?
KB. We are committed to supporting emerging industry standards as they are announced and accepted. eCube recently announced support for the IXRetail schemas as developed by the National Retail Foundation Association of Retail Technology Standards (NRF-ARTS) and NAXML (XML schema for retail convenience stores). We are also an active member of the Petroleum Convenience Alliance for Technology Standards (PCATS) that has participated in NRF-ARTS's development of IXRetail.

Retrofitting older systems to support these standards can often seem like re-inventing the wheel. The NXTware Evolution Server and the our XB Suite offering for the iSeries are especially important in making support for new standards and integration into the retail value chain simple and straightforward.

ERS. What impact does Evolution On Demand have on the customer experience in a retail environment?
KB. Customers have higher expectations. To meet those expectations, retailers will need to derive more value from their existing assets, more information from every transaction and interact with their customers at the edge of their business. That means more technology in the stores themselves where the retailer and customer meet, and where relationships are created between data and behavior.

Evolution On Demand enables those relationships with evolutionary capabilities that empower legacy retail systems to evolve. This approach provides on demand integration between business functions at the edge of the retail process, reaching from the retailer's existing systems to the space between the customer and important new technologies such as wireless devices, RFID, self-service and product information management. ■