



Giving E-Commerce a Boost

Imagine walking into a store and having all your favorite items, or things you buy regularly, neatly organized right in front of you rather than having to search up and down the aisles wondering why dish soaps and laundry detergent are not kept together. Now imagine walking into that store via the Internet on your computer. Such stores are becoming available online and are being powered by technology developed by a former NASA employee who transferred the knowledge and skills he acquired at NASA into a successful entrepreneurial endeavor, Blue Martini Software.

Blue Martini president Monte Zweben used his nine years at Ames Research Center to develop ideas on how to use artificial intelligence for automated scheduling and planning. As the Deputy Branch Chief of the NASA Ames Artificial Intelligence Branch, Zweben oversaw research in machine learning and data mining. NASA implemented the technology to automate the maintenance and refurbishment on the space shuttles at savings of \$4 million per year.

Blue Martini provides software to companies seeking to personalize their products to each individual customer. Many of the methods developed and studied during the research at Ames are useful for mining clickstream and purchasing behavior, and similar techniques are now used in Blue Martini's applications.

Blue Martini's primary product is its Customer Interaction System, which can be used to automatically tailor an online catalog to a shopper's interest or past purchase history. The software allows merchants to spot trends in buying patterns and correspondingly change its website to leverage those trends.

The merchant can attach characteristics to a target market and then apply those same descriptors to a range of products so that visitors to the website are shown products in which they are most likely to have an interest. Blue Martini Software then provides analysis and reports to merchants, which allow them to determine optimal cross-sells, pricing, and promotions. This ability combines dynamic merchandising and targeted selling.

Blue Martini Software also offers flexible functions to provide a variety of service programs such as



Portable devices modified with bar code readers allow salespeople to access detailed information about previous purchasing history or related products that compliment the item being purchased using Blue Martini databases accessed through the Internet.

frequent shopper rewards, gift registries, order status, and a direct link to customer service.

The software driving all this is built on a three-tier architecture that is easily expandable across servers, secure from unauthorized access to customer data, and uses load balancing to optimize response time and eliminate crashed servers from the pool to ensure no-delay shopping. The Customer Interaction System can manage millions of distinct customers and process millions of page or catalog views per day.

The advantage of Blue Martini comes not just from the personalization capabilities of the software, but also teaches its customers how to personalize. The user-friendly interface is designed using intuitive graphics so that business can actually make Blue Martini Software a powerful tool that delivers on its promise.

So far, Blue Martini has sold its system to a major clothing maker and a leading motorcycle manufacturer, and has several other large merchandisers lined up. It is this kind of leading edge approach that has Blue Martini positioned to become a market leader in providing e-commerce services to companies.