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**Nicholas Romanidis,**  
SilverWare POS

# SilverWare serves up handheld hospitality

Ontario firm dishes out cutting-edge point of sale offerings with Visual Studio and .NET

**BY TIM WILSON**

Headquartered in Markham, Ont., SilverWare POS Inc. is an independent vendor of hospitality software solutions. The company, which has its main office in Lombard, Ill., is growing in an industry where demand is strong but the right solution can be hard to find. Typical customers are fine and casual dining restaurants, bars and night clubs, hotels, cafeterias and casinos.

This is a highly distributed market with a diverse and fluid user base, meaning that software interfaces must be robust and easy to use. If they aren't, customers won't buy, and this is one reason for the historically low uptake in the hospitality sector.

"The industry is showing strong demand," says Lucky Thalassas, SilverWare's executive vice-president. "But there are a lot of late adopters. Some estimates are that 50 per cent of all restaurants don't have any form of computerized POS (point of sale). These businesses are still working on cash registers."

SilverWare got its start in 1988 by developing custom software solutions with a focus on financial accounting systems. In 1992 the company was hired by an independent golf and country club in Midland, Ont., to develop a DOS-based

POS solution for member billing and restaurant ordering, as well as basic reporting. But the big shift came in 1994, when SilverWare introduced one of North America's first Windows-based POS systems. Today, the company has a suite of applications with wide functionality, including POS with table management and reservation capabilities, accounts receivable, member billing, inventory, dispatch, catering, wine management, recipes and Web-based reporting. Advanced features include biometrics for time and attendance, and business indicator alerts.

This is a lot of software for a company with only a hand-full of full-time developers. The remarkable thing is not only that the company has built such capabilities, but that they can continue to add advanced functionality without turning to a small army of developers.

"Visual Studio 2008 and .NET Framework 3.5 make us more productive," says Romanidis. "The SQL Server database is well integrated with ADO.Net Entity Framework. This means that the development tiers — data layer, business logic, presentation — all interact well. We used to have to code the design logic, but now this is drag and drop. Work on the business layer that used to take a couple of months is down to a week."

Rini Gahir, senior product manager for developer tools at Microsoft Canada, says that one of the advantages of .NET Framework 3.5 is that it can assist organizations in building connected applications. These can then extend to multiple devices and locations.

"There are different technology silos in any organization," Gahir says. "(There are) different form factors, different media, whether they are on the Web, desktop or mobile. This can be a challenge for organizations trying to harness technology for business benefit, but .NET 3.5 allows for better connectivity between these silos, whether in Java, older .NET or other frameworks."

One of the appealing features of this latest .NET Framework is LINQ, which stands for language integrated query. It is a component that was made available along with .NET Framework 3.5 in November of last year.

"LINQ provides a single mode to query multiple data sources," says Gahir, "including SQL Server. Today modern applications have rich media — pictures, video, large objects — all of which need

to be stored. With metadata, LINQ can query much more clearly and efficiently."

As well, Visual Studio has been enhanced by IntelliSense, Microsoft's autocompletion function for symbols, names and functions. Designed to assist programmers, IntelliSense strengthens queries and reduces errors. Nicholas Romanidis, director of IT/software engineering for SilverWare, points out that this advance query functionality has offered definite advantages.

"Typically, in the software world when you want to access something from a database you create strings, with different query syntax for each database," says Romanidis. "These strings don't usually give you 'intellisense', but what LINQ does is it allows you to type strong queries from the database."

For SilverWare, this means that coding is more robust, efficient and precise.

"For example," says Romanidis, "we can pull all the names of clients that have been added to the database since a given date, and we can check coding at design time. This can give us tighter integration with data and business logic. We can find mistakes earlier, as opposed to when running the application."

SilverWare's software is designed for organizations big and small, from a single, mom-and-pop restaurant, to a multi-revenue facility, to franchises with a single menu and shared staff. Tight SQL Server integration means that, with relative ease, SilverWare's suite can offer value-adds such as enterprise-wide gift cards, frequent diner programs and other more specialized CRM capabilities.

"We have focused on the customer database and expanded it over the years," says SilverWare's Thalass. "Our CRM capabilities now allow for the tracking of all purchases historically by customer. There can be individual discounts, extended credit terms, monthly invoices and programs for points, VIPs or frequent diners. All in all, the reporting function has been incorporated to have more power and flexibility."

Having all of the technology work well together



## *“Our customer relationship management capabilities now allow for the tracking of all purchases by customer.”* Lucky Thalass

is a big part of this story. Because Visual Studio 2008 and .NET Framework 3.5 integrate closely with the SQL Server database, SilverWare can engineer its software to offer its customers real-time operational efficiencies and controls. This doesn't surprise Kevin Restivo, a software analyst with IDC Canada in Toronto.

“I think the big advantage is interoperability,” he says. “A Microsoft environment can deliver a lot of usability advantages without having to work around integration and functionality issues. And Microsoft is putting massive amounts of research and development behind this technology.”

SilverWare itself was recently recognized by Microsoft for being an early adopter of its enterprise technology. Specifically, SilverWare's most recent product, Avrio, was developed with the aid of Microsoft's Windows Presentation Foundation (WPF), which is pre-installed in Vista, and Expression Blend.

“WPF allows for smooth graphical animations for zooming out and in,” explains Microsoft's Gahir. “Microsoft's Silverlight is the Web-based version of this. Expression Blend comes out of the Expression Studio family of products. Essentially, there are two tool sets: Visual Studio is ideal for developers, and Expression Studio is for designers, including Web designers who are creating rich media applications.”

Before Expression Studio came along, designers using Adobe's Flash technology would struggle to interact with developers who were creating code to support business logic. This has been one of the common disconnects between designers' wishes for rich applications and the coders' struggles to make things work within enterprise requirements.

“Now designers can create cool animation



and rich applications under the design canvas in Expression, and developers can open up that object code, and look at what's behind it,” says Gahir. “It can then be tweaked and extended.”

SilverWare has had hands-on experience with Expression Blend, designing the software interface out of Photoshop and paint programs, and can speak to direct improvements in productivity. Now designers and programmers can be enthusiastic about collaboration, as opposed to being at odds with each other.

“In the old days, an image would be sent to a programmer, who would then try to figure out how to integrate it,” says Romanidis. “Now we can draw a screen to look exactly as we want it, and not have to worry about the programmers complaining that they can't add, or simply don't want the hassle of adding, additional functionality.”

This ability to program usability functions with speed and ease will come in handy for SilverWare and its 4,000 customers. The hospitality industry runs 24 hours a day. Analysis and planning tools become relevant in day-to-day situations, and not just as a part of long-term planning.

As a result, SilverWare isn't slowing down. “We are evaluating the SQL Server Analysis Services features right now,” says Romanidis.

This is a logical next step. At present, SilverWare is using SQL Server 2008 Reporting, but there is a host of other business intelligence (BI) tools that can help leverage the data in SQL Server. Whether it be performance reports or dashboards, the addition of more management reporting tools will keep SilverWare on the forefront of solution design for the hospitality industry, providing a moveable feast for an ever-expanding market.