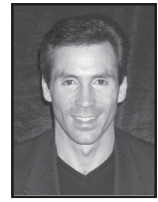# WIRELESS POS TECHNOLOGY

The next generation of devices being offered by third-party providers

by Jeremy Rock

The introduction of the tablet PC by the Aureole restaurant has proved to be a great success with the restaurant's customers and has allowed the restaurant to increase its sales by 15 percent since the introduction of the devices.

It's hard to pick up a technology magazine nowadays without the mention of the word wireless in the first sentence. It would seem that the advantages of wireless applications have finally started to prove their validity and the initial kinks of deploying these devices have started to smooth out. From a food and beverage perspective, the initial "wow" factor has started to diminish and operators are looking for the promised returns on their investments. In talking to a number of the point-of-sale (POS) providers, most of them indicated that they either currently have a wireless application or that they are in the process of creating one to work with their current technology.

When wireless POS devices were first introduced into the market, they were limited in their capabilities and fret with challenges. This situation has changed and even though some of these challenges still confront the industry, most POS providers are now starting to see wireless devices forming upwards of 10 percent to 15 percent of the overall costs of their system deployments. Some of the larger providers are creating unique applications that enhance their current functionality. MICROS for example is now offering signature capture, which allows servers to electronically capture and store payment authorization as well as transmit the authorization to the property management system. InfoGenesis is also focusing on their new cashless payment system which enables the use of credit cards, room cards and other loyalty-based cards.

While most of the providers are focusing on improving the development of their current wireless applications, the more innovative solutions that are appearing on the market seem to be as a result of third-party providers. With the advent of open architecture programming languages such as Microsoft's .NET, these third-party providers have been able to create unique products that can integrate and interface with many different platforms. Due to the fact that most of the traditional POS providers are required to focus on products for the mainstream, the third party providers can cater to the unique needs and requirements of various "upscale" operators. The POS providers have also recognized that these unique applications can enhance their system's functionality and as such have started to work with some of them to provide enhanced interfaces to their systems.

Traditionally, most of the POS providers such as InfoGenesis, MICROS, HSI and Aloha have selected Symbol's 2800 series handheld or PDAs such as Compaq's Ipaq or Dell's Axim as their device of choice when selecting equipment to work with their wireless applications. While these devices still continue to be used as the mainstay of their overall wireless solution, we are starting to see a number of alternative devices being introduced into the market.

The tablet PC was introduced in the latter part of 2002. Since then, a number of solution providers have identified the potential of these devices and have started to deploy them in unique environments. One such location is the now famous Aureole restaurant located in the Mandalay Bay Hotel in Las Vegas. Aureole is known for its vast wine collection and elegant American cuisine created by Chef Charlie Palmer. The restaurant has a collection of approximately 4,000 individual wines from all over the world with a total inventory of over 50,000 bottles of

The intelliChaise₍ₐ₎ personal ordering system's guest unit takes advantage of the versatility of WiFi and allows guests to place orders poolside, beachside, deckside or any other location around a property.
Photo courtesy of Tiare Technology, Inc.

ventory. This coupled with the reduction of about 100 staff hours per month associated with the printing of menus has meant the ROI is more than worth the effort.

Recently the system was interfaced to Aureole's **InfoGenesis** POS system, which has allowed orders to be processed more efficiently and accurately. InfoGenesis is one of the POS providers who has made the decision to provide their interface specifications to those customers who wish to interface third-party applications to their system. Their XML gateway cornerstone provides a simple method of interfacing the various systems and thereby provides the restaurant guests with additional access to leading-edge technology.

One of the more innovative products that has recently emerged on the market is Tiare Technology's **intelliChaise**₍ₐ₎ personal ordering system. This system is designed to allow guests to order food, beverages and other items from the comfort of their own beach or pool deck chair. Due to the harsh environment that the system operates in, the wireless devices have been custom designed for extensive outdoor use and as such are extremely rugged and resistant to the natural elements. This makes them perfectly suited to a pool or beach environment.

The intelliChaise system is comprised of three devices: the guest unit, central unit and server unit, and takes advantage of the versatility of 802.11b (WiFi) networks.

The guest is provided a guest unit when they arrive at the pool, spa, beach, deck or other location of choice. The attendant attaches the device to the guest's chair with a locking mechanism and the guest is authenticated as a secured user by inputting their room number and PIN code. The graphical user interface is intuitive and easy to use, and as such, the guests require virtually no training to use the system. Through an array of menus, guests are quickly able to order food and beverages or other services by entering information on the unit using the simple touchscreen interface. The order is transmitted to the central unit which in turn transmits the information to the kitchen, bar, store or other linked location where the order is either printed or interfaced with the resort's POS system or other designated application. Once the order has been prepared the central unit alerts the appropriate server unit that the order is ready and provides the service staff with all the information necessary to fulfill and deliver the guest's order. The guest can then be located using the wireless location subsystem in the server unit, which emits a signal to show the exact location of the guest. The guest also has the ability to page a server and the message will be displayed on the server unit showing the name and location of a guest who requires immediate service or personal assistance.

Interestingly enough, rather than removing the human element in service operations, the system will actually increase the level of per-

wine. Ten thousand of these bottles are housed in a four-story temperature-controlled glass and steel wine tower where black-clad wine "angels" suspended by cables assist customers with retrieving their selected wines. When the restaurant was originally opened, the wine menu was over 100 pages long which proved to be overwhelming for the guests and was fret with inventory-related problems. In order to overcome the problem, Andrew Bradbury, the director of wine for Aureole, enlisted the help of Cursivecode, a Seattle-based company that specializes in Internet and wireless solutions.

The introduction of the tablet PC with its XP operating system and built-in wireless connectivity allowed them to develop an application that would push and pull information from their back-office Microsoft SQL server databases where their wine information was stored. Utilizing a Microsoft .NET framework, they are able to provide guests with an electronic wine menu that is updated on a real-time basis. The tablet PC's digitized screen and electromagnetic stylus made it easy for diners at a table to browse through the wine menu and access multimedia features that are designed to help make the wine selection process more fun and educational. The customers are able to sort the various wines by color, country and then by region or variety. They can also retrieve information on a particular wine, ascertain possible food pairings and view photos and videos on the various wineries. The tablet PC's ability to recognize handwriting allows customers to perform searches and e-mail the chef or wine director in their own handwriting. In addition, guests can view the wine angels retrieving their bottles of wine through strategically placed video cameras.

The introduction of the tablet PC has proved to be a great success with the restaurant's customers and has allowed the restaurant to increase its sales by 15 percent since the introduction of the devices (roughly $750,000 to $1,000,000). In addition, the system has provided an accurate method of managing and maintaining their wine in-

sonal service that resorts can provide their guests. Wait staff and runners armed with the server unit will now have information including the guest's name, room number, order history and preferences, and can use this information to provide personalized service. The unique location-finding feature will allow staff to quickly locate the guest (even if they move their chair or have not made previous contact).

Julie Werbitt, CEO of Tiare Technology, said, "The system gives service staff the information they need to provide greater personal attention to guests, while also providing guests the fastest service possible."

All device interactions are served as Web pages through Internet Explorer from the server. The transactional core of the server software controls all communications between individual devices and the hotel POS system with an SQL database used for building and managing orders. The system is fully customizable for the resorts and can be configured for individual requirements and demands as well. Presently the company is developing interfaces with some leading POS systems, allowing further streamlining of operations.

The benefits of the intelliChaise system to hotels and resorts include the following:

1 | The ability to enhance guest satisfaction with faster, more convenient service, which leads to lengthier stays, repeat visits, positive word of mouth and enhanced market position.

2 | Growth in average revenue per guest at their properties by increasing sales of food, beverages, merchandise and services at the recreational areas of the resort. The resort can offer additional guest services and amenities (such as spa services) or up-sell premium items (such as top-shelf liquors) by including them in the system for ordering and by promoting them through the guest unit display. (This can be facilitated via the resort's network or by connecting through an intranet.)

3 | Because the system is intended to assist resorts in increasing sales of high-margin products and services (food, drinks, spa services, equipment rentals), the system can generate a high return on investment for its customers.

As wireless technology starts to play an ever increasing role in the operations area of the industry, we are starting to see organizations take advantage of this technology and creating unique applications that plug into their existing POS systems. Many of these systems utilize a browser format to facilitate a user interface that can be connected to a network of platforms on the back end. With everyone seeking to gain a competitive advantage, one can expect properties to create custom modular applications that provide an extension to their existing POS platform. The new applications will not only enhance guest services but also bring additional revenues to the bottom line. However be forewarned, you will need to get your checkbook out if you decide to develop your own unique solution.

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