



Waste Not

New wireless beverage management technology removes the pain of product monitoring and tracking.

By Cheryl Ursin

It's 2 a.m. At a bar, which by law was supposed to stop serving at 1 a.m., someone pours a draft beer.

If the bar is being monitored by wireless and internet technology that tracks draft beer, the restaurant manager will receive an email alert, perhaps on his or her Blackberry or cell phone—within as little as 30 *seconds* of the tap being pulled.

How's that for control?

Beverage alcohol is one of the most valuable, profitable and desirable items in a bar or restaurant. Yet, keeping track of it traditionally has been a challenge. As a rule of thumb, draft beer and liquor has an average loss rate of 20 percent. In other words, one fifth of all liquor and draft beer in restaurants and bars simply disappears due to waste, over-pouring and theft.

The vast majority of operators must track these valuable items using paper and pencil, eyeballing open liquor bottles and guessing, to the tenth, how much they contain. For beer, many kick the kegs to check their fullness.

The situation is made even more difficult in establishments that free pour. "Customers don't want to see your alcohol be-

ing controlled, that you're watching every drop," says Douglas Browne, general manager of The Peabody Memphis, a Memphis, Tenn. four-diamond hotel famous for its ducks.

So, for many restaurant and bar operators, the first attempt at beverage technology—the liquor gun and the ring system, where a bottle's spout is passed through a ring to "unlock" it and allow a pre-measured amount of liquor to be dispensed—is not compatible with the ambiance they want to project.

A second generation of systems, from companies such as AccuBar and Scannabar, use personal digital assistants (PDAs) equipped with scanners to speed up the process of manually taking inventory.

Now, a third generation of systems is using radio frequency identification (RFID) technology to track beverages and their use in real time. These systems are not, strictly speaking, control systems. Unlike a liquor-gun, cocktail-tower or ring system, they do not control how much the bartender pours. They monitor product use, delivering not only data, but also information and reports that can help operators identify trends or practices influencing waste and costs.



Information from beer flow meters and sensors is sent via the internet to the US Beverage Net server, which then delivers it to the operator's cell phone or PDA, enabling restaurateurs to address any problems immediately.



BEER IN MIND

The system from Powhatan, Va.-based IntelliTap uses sensors such as flow meters and thermometers. These send their information wirelessly via RFID tags to a receiver. The receiver then sends it not to a computer within the restaurant, but to IntelliTap's own servers via the internet. "We're like ADT for the back-end of restaurants," says David Adams, president and CEO of IntelliTap, comparing the system to the popular security-alarm service. The service alerts managers to anomalies and generates inventory reports.

US Beverage Net, a company based in Syracuse, N.Y., offers a similar system. While technically this system does not use wireless technology—its flow meters and other sensors are attached to its receivers by wires—the idea behind the system is the same: input from its sensors is sent to a receiver, which then pushes it, via the Internet, to US Beverage Net servers. "We're a software service provider," explains Rajiv Kalra, US Beverage Net's chief administrative officer. Kalra likens his system to a cable company. "We're not selling you equipment that you then have to deal with. No one on-site has to crunch the numbers. We own all the equipment, we install it and maintain it and provide you with the information from it," he says.

The Home Team Grill, a chain of three sports-themed restaurants located in and around Richmond, Va., has been using the IntelliTap system since last summer. Garland Taylor, managing partner and founder of the chain, says his first concern was controlling theft; the system can access information from a restaurant's point-of-sale system (POS) and reconcile it with its own usage data. "I could literally see that a beer was poured at 8 p.m. and that a beer was rung up at 8:01," says Taylor. "That was pretty powerful to me."

He since has found that the system can do far more, alerting him and his restaurant managers if, for example, a cooler's temperature or the temperature of the glycol in the beer lines

becomes too hot. Because what goes through the beer lines is also tracked, Taylor has a record of when the lines were cleaned and even if the appropriate amount of cleaning fluid was used for the appropriate amount of time. This increases his yield because beer kept at the right temperature is less likely to foam, and it also maintains beer quality.

Both IntelliTap and US Beverage Net see other uses for their technology. IntelliTap is working with brewers so sensors can be placed on kegs at the factory to help the beer companies with tracking. It also has begun monitoring items such as fountain beverages, food coolers and grease traps at restaurants. "Our system can monitor the flow in grease traps," says Adams, "and automatically email the company the restaurant has a contract with to come and pump them out."

US Beverage Net is planning to expand into monitoring bottled beer, liquor and wine over the next year. "We want to be the diagnostic center for beverages," notes Kalra.

How much do the currently available draft beer systems cost? For a typical IntelliTap system, there is an initial charge of \$1,500 to \$2,000 for equipment, then a monthly fee that usually is in the range of \$200 to \$250 per location. "It's about \$5—or a glass of beer—per keg," says IntelliTap's Adams.

SLICKER LIQUOR

Three other companies are taking on the challenge of spirits management. Two, Capton Inc., based in Sausalito, Calif. and Nuvo Technologies, based in Tempe, Ariz., involve pour spouts equipped with RFID microchips; the sensors look and feel



● Radio frequency identification (RFID) tags on Capton Inc. pour spouts measure bottle tilt, pour duration and flow rate; the data is transmitted wirelessly and analyzed against information about the brand's viscosity and bottle shape and size to determine the amount poured.

like ordinary pour-spouts. The third, Beverage Metrics, based in Miami, Fla., puts RFID microchips into medallions that are fastened to the outside of the bottles. To be less obtrusive, the medallions can be customized with the restaurant's logo.

The technology measures bottle tilt, duration and flow. Combined with data on the thickness and viscosity of the brand, as well as the size and shape of the brand's bottle and its current temperature, the systems accurately determine how much is poured.

The Beverage Metrics system monitors closed bottles as well as open, and can monitor closed wine bottles as well. Every hour, each Beverage Metric medallion sends a signal to the system's receiver, telling the receiver where it, and its bottle, is: in the storeroom, at this bar, at that bar, walking out the door,

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etc. The receiver can be placed anywhere in the bar or, for most systems, within 100 feet of the bottles.

All three systems give real-time information about the bottles they monitor. All three also can reconcile collected data with the restaurant's POS data, producing a poured/paid report. To generate the report, the systems reconcile several pours of different liquors with the recipe of the drink being made. This information

also can show the operator that the bartenders are making drinks correctly, and that they are not under- or over-pouring.

Closely monitoring bartender performance can change the vibe in the workplace. "When you've got a bar with a bad beverage cost, you don't know who is good and who is bad," says Tim Herman, manager of Fairmont Turnberry Isle Resort & Club in Miami, Fla., which has been using the Beverage Metrics system in its Cascata Grille since the restaurant opened in 2006. "I like that I can share positive information with the bartenders," Herman explains. "We finally have a way to see and tell them 'Your accuracy is excellent.'"

While some may be concerned that bartenders won't appreciate being 'watched' in such a way, according to Herman, the presence of the system has been a positive rather than a negative for his bartenders. "Bartenders tend to get a bum rap," he explains, "but when you have a way to know they are being honest, you're not thinking they're bums."

System costs vary, depending on a number of factors: single location versus chain, number of bottles being monitored, what features, such as POS reconciliation or text message alerts, are added. They are not cheap, however; investment can range from \$7,000 to \$25,000 per bar on average. Still, as Tricia James, Capton's vice president of marketing, points out, "That's less than a POS system."

Douglas Browne, the general manager at Peabody Memphis, seconds the sentiment. "Since we began using the system in May [of 2006]," he says, "we have witnessed a significant reduction in liquor inventory costs and a significant increase in revenues associated with free pour drink control."

The Home Team's Taylor notes that not too long ago, most restaurants did not have POS systems, either. "Fifteen years ago, people were saying, 'No way!' to the idea of POS. Now, most see the value of it," he says. With IntelliTap's beverage management system, he says, "I can make sound decisions. And that's very powerful." ●

Cheryl Ursin writes about beverages and beverage management in restaurants and at retail from Houston, Texas.