Refining the Recipe

BLENDING THE RIGHT TECHNOLOGY INGREDIENTS FOR THE PERFECT MIX OF GUEST SATISFACTION AND PROFITS

by Jon Inge

There is no more traditional expression of hospitality than providing someone with a meal and refreshment. Creating a relaxing environment to make people feel welcome gives a host the full expression to the art of entertaining and making people feel at ease. In an industry that operates on thin margins constantly mindful of trends to avoid becoming sidelined, it has never been more necessary to have effective automated tools to make operations as efficient as possible. The challenge is to make the tools useful and comprehensive without letting them intrude on the guest's experience.

Good tools focusing on specific areas have been available for some time but often produce bottlenecks and inaccuracies when exchanging or consolidating data with other systems. Technological advances finally are letting us cross the threshold to properly integrated operations. More open architecture, flexible interfaces and the widespread influence of the Internet and wireless communications combine to provide tools that are more effective than ever and require less effort to operate.

The links between point of sale (POS), property management (PMS), inventory and purchasing, sales and catering (S&C) and business intelligence (BI) systems are both tighter and more flexible. As technology becomes less of a limiting factor, the challenge is relying on management to make the best use of these tools for a more effective operation.

Three Types of Operations

Food and beverage (F&B) operations can be roughly grouped into three types. The smaller restaurant operations, usually independents, typically look for almost commodity POS systems that are inexpensive and easy to learn and operate. These systems' limited functionality can be a handicap if conditions change, but many of these operations work on a two-to-three year timeframe. If the restaurant doesn't work out, they'll probably write it off and start again with fresh equipment. If the restaurant does survive, there is a better chance with a modern system that they'll be able to expand it, adding modules to provide greater control and focused guest management.

Chains, corporations and higher-end operations with a longer-term outlook are much more focused on getting the most effective tools they can for the job, maximizing their use of technology and the data gathered to be as efficient as possible. Integration between POS, labor management, time and attendance (T&A), accounting and procurement is critical. These users are looking for a complete system, preferably one that includes gift cards, customer relationship management (CRM) functionality and built-in Internet credit card settlement, and requires fewer third-party add-ons with multiple interfaces or vendors to manage. The systems also must be absolutely intuitive to learn and to use because of the intense time pressures during peak dining hours and high staff turnover.

In between these two groups are the majority of hotel operations. Fully aware of the importance of guest relationship management, they have the extra challenge of offering more guest activities and need extensive integration between guest-facing applications. Because of this breadth, hotels haven't needed to squeeze every last cent out of the F&B operations to make them profitable, and have not focused as much on integrating their back-of-house operations into an effective, cost-conscious whole.

Integration Advances

As with a hotel PMS, if a system is not all-encompassing these days it's much more important for it to integrate seamlessly with other systems, a task fortunately made easier with the current move to more open architectures and XML-based interfacing. Modern systems that have embraced this approach have more flexibility in the systems they interact with, and can have a greater degree of depth and detail.

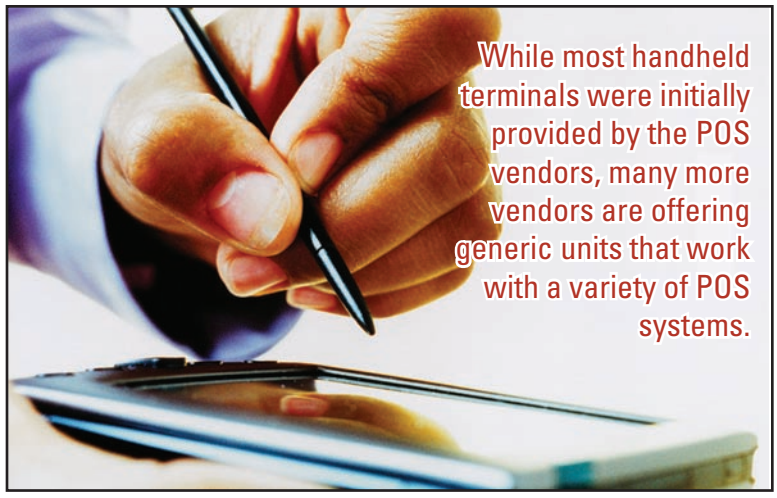
Squirrel Systems' current Squirrel One POS allows both the vendor and its distributors to modify the system quickly and easily by writing Java extensions to meet specific customer needs with the result appearing to be part of the main application. Squirrel wrote this product to emulate Time Management's TMx time clocks, so that the TMx software believes its own time clock is providing input whereas it's actually a software simulation on the Squirrel workstation screen. Squirrel's distributor in the Pacific Northwest, Pacific Coast Systems, wrote an extension to handle pool-table management for a specific client, and incorporated it into the base software.

Another example is supply-chain vendor Eatec's multiprotocol Exchange module. This gives Eatec's inventory and purchasing system the flexibility to integrate with a variety of POS, supply-chain management and financial systems through its ability to handle multiple industry standard protocols from EDI to XML/SOAP, covering data imports as well as exports.

POS Systems

POS systems have become quite sophisticated over the years, and there hasn't been a real demand lately for substantially different functionality.

Most current systems such as those from MICROS Systems, InfoGenesis, Squirrel Systems, Geac, Aloha, HSI, Digital Dining, PixelPoint, POSitouch and others do an excellent job handling orders, kitchen order printing, check settlements and splits and transfers with the fast response times essential at peak traffic periods, and with intuitive screen layouts. The main functional developments have been in making these functions even more intuitive and improving the systems' ability to integrate with other systems.



Four areas worth mentioning are:

1| Signature capture is more common, but mostly in cashier-desk operations (where the guest can sign on a small counter-top unit) and in handheld terminal environments. The hardware involved still has an image issue in fine dining restaurants, but an alternative in a hotel environment is to capture a guest's signature at check in and make it available at the POS workstations for verification in the outlets. Only a few systems offer this at the moment, and it's not technically difficult.

2| It's becoming more common to have F&B and retail operations on the same POS software, especially for casinos and sports stadiums. This more accurately reflects the wide-ranging nature of guests' transactions at these locations, requires fewer different systems to buy and manage, and makes it easier to transfer staff and stock between outlets.

3| The rapid, widespread growth of the Internet into the restaurant world has enabled many more operations to accept credit card settlements. Dial-up functionality was too slow for most quick-service operations and was impractical for wireless handheld units, but now POS charges can be processed over the Internet very quickly and inexpensively, letting more outlets accept cards. CISP compliance for card security is essential. With secure wireless access, the potential is also there for wider use of credit cards, gift cards or frequent-guest membership cards at portable workstations.

4| Ingredient analysis is more generally available because of a wider awareness of ingredient-specific food allergies. Not to be over-emphasized on menus, it should be available if the guest asks. Since this data isn't always easy to obtain and must be accurate, many operators seek help from specialists in chemical or computerized recipe analysis. Some generic software applications can also help for more common recipes.

Among other changes in POS usage, pre-ordering has become more common. Theaters and luxury suites at stadiums use preordering, and hotel staff can benefit from room-service breakfast orders being entered the night before for easier scheduling and food preparation. With stadium suites becoming such a popular option, many operators are taking advantage of integrated systems to enter the F&B orders into their inventory and purchasing system days in advance and downloading them to the POS on the day of the event. Variations and additions are then ordered through the POS, and the final check can either be settled in the POS system or transferred back to the inventory and purchasing system for settlement.

Integration with property management and other guest-focused systems is better thanks to pressure from clients to improve interface technology, but it could still become more seamless. Many of these systems can already look up the POS check detail for charges originating in an F&B outlet or spa, but it's still not as common as it could be to have dining (or spa) reservations show up on the guest's complete stay itinerary in the PMS. Better integration could be a lift to service as well. If a guest at the poolside orders another drink, it would be nice if the POS could remind the server that the guest has a spa appointment in 40 minutes.

Handheld Terminals

Handheld terminals have shown the most functional development. These highly portable devices, often using consumer PDAs, are convenient to carry but not always to use given their small screen size. Character recognition, introduced quite recently, has helped navigation and ordering by allowing the server to start writing the first few letters of a menu item and giving them the ability to immeditaely choose the correct item from those few letters, avoiding excessive menu paging or drill downs.

Also useful are all-in-one units, incorporating signature capture, credit card swipes and a small printer. These are more practical now that secure wireless networks are becoming so pervasive, and they allow the server to complete the full transaction in front of the customer. Ambience is important though, and handheld terminals are still less likely to be seen in a fine dining restaurant in any form, let alone with the card swipe and printer, though there are definite advantages to the guest's reassurance in not losing sight of her credit card. These all-in-one units may become less bulky with the introduction of RFID-based credit and debit cards, which can be charged by a proximity reader instead of needing a physical swipe, but they're never going to be really unobtrusive if they're to remain usable.

In general, handheld terminals are still best suited for very specific environments, such as stadiums, poolside or beach areas where a runner can deliver the order to the guest without the server having to return to a fixed base workstation, or fast-service outlets where guests routinely want a quick turn around.

A relatively limited menu definitely speeds the process by limiting the number of options the server must deal with on a small and hard to read device.

While most handheld terminals were provided by the POS vendors themselves, many more vendors are offering generic units that work with a variety of POS systems. Examples are available from ActionSystems, Pocketcheff,

Photo courtesy of WaveSoft.

ReachPOS and others. As always, it's important to review these carefully for usability and applicability to your own operation when you are looking to buy.

Tablets and E-menus

Tablet PCs are more usable than handheld units due to their larger screens, but they're still too bulky and heavy for widespread use. An interesting restaurant application is being tried out in the form of e-menus, especially for wine lists, where the unit (often in a tasteful leather folder) can be left with the guest for perusal before ordering. The amount of additional information available to the guest especially for nutritional information or wine tasting notes and possible food and wine pairings is a particular advantage. The cost is still the biggest downside, as is the risk of slowing down the order-taking process as guests review all the considerable information available to them. As always, the user interface design makes a big difference by finding a balance between enough information to help the guest make first decisions, with further detail available if needed.

Management Alerts

Several POS systems include management dashboards to keep a current view of key performance indicators. Typically management will be alerted by a pager, PDA or Blackberry when an indicator is reached or missed, advising them of potential security or guest service issues.

The keys to their effectiveness are the ability to identify and configure realistic and meaningful alert conditions, and the willingness of managers to carry the devices and use them. The former is often much more readily achievable than the latter.

Kiosks

As in so many areas of modern life, kiosks are becoming a more common sight. They're not suitable for every operation or every guest, but many customers are very happy to use them if available. Quick service restaurants, coffee shops and cafes find them especially useful to increase order placement and accuracy. As in a hotel environment, the opportunity is there to provide more information to the guest through nutritional values and ingredient lists and to upsell, but this should not be intrusive or slow down the order process, the main reason the units are there in the first place.

Reservations and Table Management

Dining reservations and table management systems have become much more common, both as a way to provide more efficient operations and focus more on guest relationship management. Since few diners leave their names and contact data when they walk in for dinner, any way to gather that information unobtrusively is bound to be valuable in encouraging repeat business. Independent systems such as GuestBridge, OpenTable and Rock's ProHost and RSViP continue to do a good job of tracking guests' bookings, history, preferences and important dates, but POS vendors such as MICROS Systems, InfoGenesis and Squirrel Systems offer these functions as a module of their main systems.

In both cases reservations systems are getting more sophisticated, including availability checking across multiple outlets within the same operation, making multiple table reservations for groups, and transferring reservations from one outlet to another. If the system is Web-based, guests can book over the Internet which is a positive for both.

Table management systems provide faster turns due to better wait staff and visibility of meal progress data and more accurate wait time forecasts. The data captured allows detailed service analysis for more efficient table turns and helps any service staff taking longer than average to handle orders.

A Dining Experience that Really Moves You

If you think running a combined F&B and retail POS operation is challenging, try doing it while the restaurant is on the move—and your retail item inventory doesn't even travel with you. The Rocky Mountaineer, a scenic train excursion through the Canadian Rockies from Vancouver to Calgary and Vancouver to Jasper, has an overnight stop in Kamloops and the trip through the spectacular scenery is in daylight. How do you approach automating guest services in such an operation?

Director of Information Services for Rocky Mountaineer Vacations Ben Guanzon said, "(We do it) in stages. Each car currently has its own POS system (from **InfoGenesis**), and each POS terminal has its own CDMA dial-up connection back to Vancouver. Since the train tickets include most food and some beverages, we use the POS for diners' special food and beverage orders and for any retail products they might want from our catalog. The retail orders are transmitted to the **Eatec** inventory management system at our warehouse in Kamloops whenever we're in communications range, and are delivered to the guests on the train during the overnight stop. We went with InfoGenesis and Eatec since we wanted as seamless a combined F&B and retail operation as possible," Guanzon said. "And they work very well together."

Guanzon said that their second phase will be to move to a single server with one outside connection per train instead of one per car, using an 802.11 wireless network to link to the workstations. "It will provide a more seamless environment, since the terminals will think they're always online (to the server) instead of constantly working in offline mode with sporadic connections. Better communications will also help eliminate the current four to five day lag in reporting operational and financial data back to Vancouver. At the same time, we're introducing dining reservations in our Gold Leaf dome cars, which each have a dining section and their own kitchen. " And in Kamloops Rocky Mountaineer has implemented bar coding and handhelds for easier check-in/check-out procedures at its souvenir warehouse.

Guanzon said that it is a bit tricky to get reliable wireless connections down the length of a metal train when the connecting doors are closed and the train is rounding a curve. "On the other hand, we don't have any problems with guests skipping out without paying."

Ideally, all these systems should be integrated, which is where the POS vendors' products have a built-in advantage. Reservations systems should feed into a table management system that also handles walk-in wait lists. Most of the table management systems tie into paging systems which alert guests when their table is ready. Some environments can also make good use of a wall-mounted wait-list display, so guests can see how long the wait is without interrupting the hostess. Either system linked to the POS can open a check as the guests are seated, which is especially valuable in a buffet environment. Servers can check the reservation information before approaching the table to review the guests' past history, preferences or dietary restrictions. Bus staff update the system from a workstation when the table was cleared and reset, and management can monitor the service times on each table.

Gift Cards

Gift cards are seeing widespread use these days, but mostly as a cash-card payment method widely sold in supermarket outlets and other locations. If they're combined with central records, it's much easier to track their current remaining value and top them up with extra payments to keep the guest coming back.

One of the best known current standard bearers for this is Starbucks. When the concept is cultivated as well as they have, you build a loyalty program without having to give anything away, purely on the convenience factor and the innately rewarding sense of being recognized as a regular patron.

Kitchen Monitors

A major trend in the kitchen itself is the growing presence of kitchen display monitors replacing order printers in table service restaurants. Long used in quick service outlets, these units have significant advantages in making order status data more visible to more people, allowing expeditors as well as chefs to keep an eye on progress. By entering baseline production time estimates, they can highlight orders that are falling behind by changing their screen color or flashing the item.

This generates production data that can be used to fine tune operations and the menu. For example, if an item is consistently taking too long to prepare, the recipe may need to be changed or the item should be dropped altogether. If one station is a consistent bottleneck, perhaps the work flow can be changed. Preparation times can often be improved through careful and realistic analysis of the data.

Display units provide more information than can be generated by traditional paper order slips, which are difficult to read because of kitchen hazards like grease and are a constant cost expense. Flexible screen formats can show different key order information, and can provide drill down to display menu item ingredients, preparation and plating instructions. On the other hand, in a complex fine dining operation they have more difficulty in providing detailed preparation, side order and modifier information as concisely as on a paper order slip. Screen data display techniques don't suit every environment, but as they improve, more operations will take advantage of them both to help the prep staff and to generate operational data for analysis.

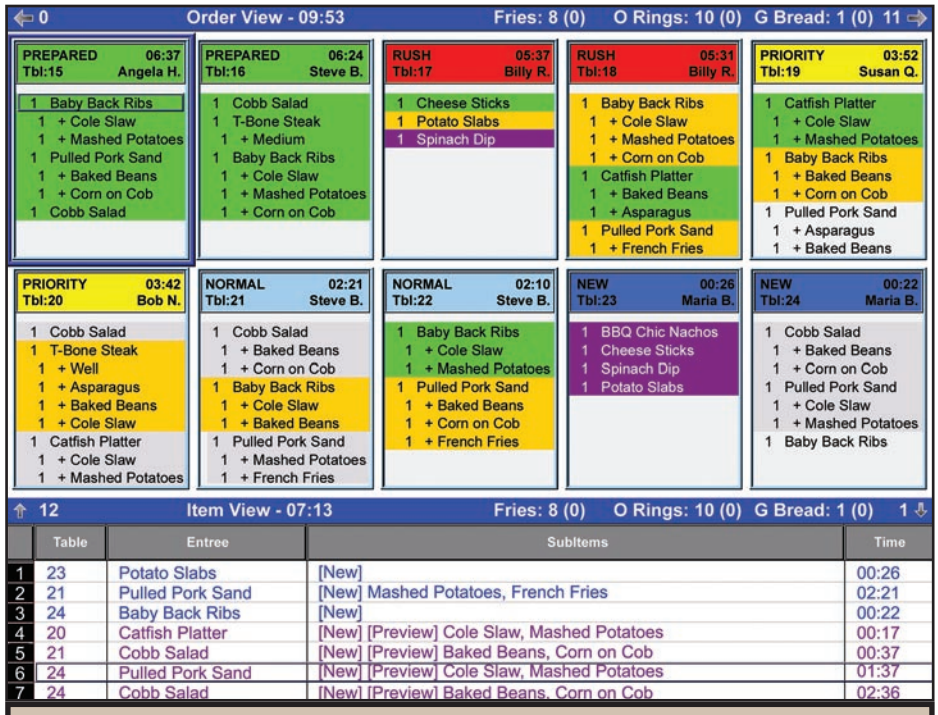
The Internet

As influential on the F&B environment as everywhere else, the Internet's power manifests itself in many different ways. Placing orders over the Web is becoming more popular for specific situations such as take-out outlets, or over a company intranet for staff cafeterias with the order held on line and sent to the kitchen at a pre-determined interval before the requested pick-up time.

Installing broadband service at an outlet with appropriate firewall security can provide public high-speed Internet access (HSIA) for all kinds of guest services as well as for other use such as credit card settlements. For example, wireless terminals at the Kentucky Derby allow patrons to bet, check handicapping data, watch videos from other tracks and place F&B orders. Most of us are already familiar with wireless access in coffee shops and some restaurants.

HSIA can also provide management with remote access both to the system data and to cameras to check on operations and help train staff by monitoring their actions. Careful use is obviously required with this. It is great to pinpoint a new server who is having trouble with some basic functions and provide specific training, but if the staff feel that they're being spied on many kinds of issues can arise.

Intranets are invaluable for quick and flexible access to operations manuals, discussion forums, company news items, a corporate documents library, e-mail between sites and many



A typical kitchen video display screen, showing orders color-coded by status, including new, in process, priority, rush (automatically set when not completed within the standard time) and prepared/ready to deliver. *Courtesy of QSR Automation, Inc.*

Taking Operations to a Different Level

Continuing with the theme of dining experiences that move you, the SkyCity rotating restaurant at the top of Seattle's famed Space Needle presents operational challenges to the staff while stunning guests with the ever-changing view from 500 feet above the ground. Keeping track of guests' orders is one thing; keeping track of where their tables have moved to when you need to take those orders or deliver meals is another challenge altogether.

Cutting down on the amount of walking back and forth in this environment was one reason SkyCity tried using handheld terminals on its POS system several years ago, but the units weren't popular with the servers.

The Space Needle's MIS Manager Glenn Arnold said, "Apart from being physically bulky and awkward to carry, the early units had communications issues. We couldn't rely on having a consistent link, and if a connection dropped while placing an order, we ended up with corrupted data and a bad guest experience. We eventually discontinued them."

The restaurant recently took the opportunity of a complete systems upgrade (from **MICROS** 8700 to 9700) to try them again, and is very pleased with the new units. "We did careful research on signal coverage and eventually mounted the antenna outside the windows and high up, which helped," said Arnold. "The new terminals (are) also more reliable and have much better error correction built in. We have a much more consistent operation and can provide a higher level of service."

The POS upgrade had other benefits, too. "The biggest benefit has been speed," said Arnold. "The system itself is fast, but the color workstations are also easier to use, and credit card settlements through our frame relay Internet connection are far, far quicker than the old dial-up link. We also feel better positioned for future scalability, and took the opportunity to incorporate super-redundancy on the hardware with dual servers, power supplies and back-up UPSs."

"We joke about it, but these days we really are operating at a higher level."

other purposes. It's becoming important and valuable to make full use of search engine keyword optimization to drive business via your Web site. Restaurants have to fight for visibility along with every other guest service.

Centrally-hosted Systems

Centralized systems are actually more common in the F&B world than in the hotel PMS one, but on more of a centrally controlled basis than a fully hosted one for two main reasons. First, since POS terminals perform such time-critical functions, it's not acceptable for them to be down due to a network problem with a remote server. For years many workstations have run in standalone mode even if their local server is unavailable, re-synchronizing data when the connection is re-established, and consequently there hasn't been the demand for central POS hosting.

On the other hand, multiple unit chain operators are typically so highly focused on data collection and analysis for all their outlets that there is a strong demand for central control of the information contained in the terminals. Many POS vendors therefore offer the ability to extract and consolidate operations data from multiple F&B outlets and provide business intelligence analysis from it. Independent systems such as Avero's Slingshot, Compeat, CrunchTime!, erestaurantservices.com and Maitre'd by Posera also offer the ability to do so from different POS systems.

Equally important to the chains, the central systems have the ability to download and control the POS terminal menus, prices, taxes and recipes, to ensure commonality and accuracy of data. Some chains allow a degree of autonomy at the regional or store level to allow for local specialties, but all have data roll-up, consolidation, reporting and business intelligence analysis.

These systems can also provide central monitoring of the kinds of security or service alerts available to the outlet manager. The local manager must be aware of such problems to resolve them immediately, but central consolidation and monitoring of all such data from multiple outlets can quickly highlight general training and security issues.

Inventory and Purchasing

E-procurement systems are a classic example of an effective centrally-hosted system and are widely used in multiple unit operations. In the hotel world they are less common. Quite often there seems to be an operational divide between the F&B and purchasing departments. Many hotels are still content with a manual purchasing operation as long as their food and beverage cost percentages are within generally accepted guidelines. It's true that inventory and purchasing systems can be very comprehensive to set up and use, and it's also true that the capability is there to bury yourself in detail if you try to track and analyze every recipe ingredient. However, focusing on key items and functions is essential to a real-world operation.

Cost control is critical even in high-end properties that typically set prices according to market tolerance rather than by ingredient cost. Even if food cost is within limits, why not explore the possibility that it could be improved? Tighter control can lead to lower costs and more competitive pricing, raising profits through better margins and increased business at the same time. Equally important, embedding your operating procedures in the systems instead of just in the minds of the managers will minimize disruptions if they leave the company.

Just about every vendor offers bar code readers and handheld terminals to help with taking storeroom inventory, though given the small size of many hotel storerooms the benefits may not be that significant. Bar code scanners are useful

on the receiving dock, however. RFID tags are still on the horizon for most operations, but in a few years many goods will arrive on pallets with RFID tags to increase security and speed the receiving process.

On the software side there has been some movement toward tracking the expected shelf life of fresh produce items, to ensure that stock is rotated or disposed of before it deteriorates. It's obviously important to monitor usage carefully to ensure proper on-hand quantities are maintained; too little and you lose sales, too much and it spoils before you can use it. What's growing is the ability to include shelf life in an item's description in an inventory system for a more structured recording and analysis approach.

Inventory and purchasing systems aren't often integrated with POS, since few F&B operators do elaborate inventory management. Typically they monitor overall food and beverage cost percentages and track high-value items in detail, but that's all, in distinct contrast to the retail POS world which is very tightly integrated both for stock control and for the higher count of different items for sale.

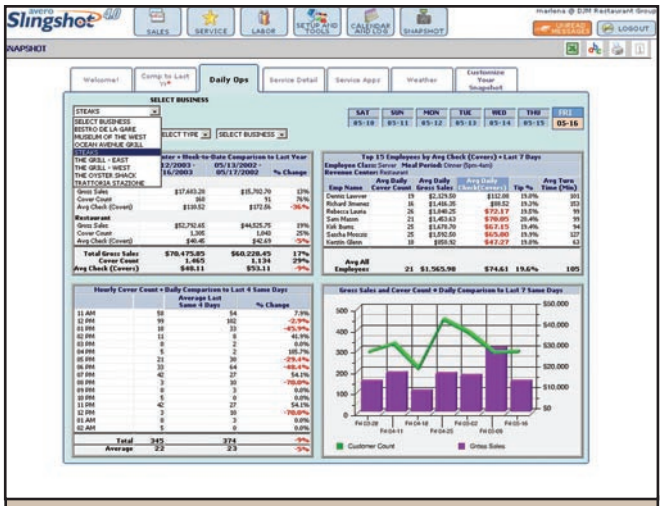
This is changing partly due to the growing number of outlets offering retail items or clothing and other souvenir merchandise, and a movement toward combining retail and F&B items on the same system as mentioned earlier. This is true in stadiums, but it's also handy in resorts where logo-wear and spa product sales can be as tightly integrated with a guest's folio as F&B and room charges.

We're getting to the point where systems can make these tasks easier through more complete integration that provides better data consolidation and analysis and reduces the bottlenecks between different systems – or indeed eliminates the staff's awareness that there are different systems.

Better integration would solve an ongoing inefficiency between POS, S&C/banquet systems and a hotel PMS, giving more control of banquet orders and check settlements. Frequent discussions about which of these systems should have ownership of the banquet check are made, but it's seldom resolved easily. If all the systems involved are integrated well and can contribute data to each other as necessary, it shouldn't matter. The check could reside on any one of them and still gather all updates and final adjustments for a complete record to be available to any department that needs it.

Labor Management

Labor scheduling continues to be a challenge. More data on an outlet's business is the only way to get a better handle on forecasting, but flexible and intuitive scheduling management tools help, and better integration between different systems can help.



A typical management dashboard screen showing sales and cover statistics by hour and day, comparisons to various other periods and a list of the Top 15 Employees by Average Check for the last seven days, all available for multiple outlets and days. Other tabs show further comparison and drill-down detail, weather records and provide for screen customization. *Courtesy of Avero, Inc.*

Time management at the outlet level varies all the way from simple clock in/clock out time stamps on a POS terminal to sophisticated time and attendance systems, such as Time Management's TMx. This is an area often incorporated into a multiple outlet chain's central data collection and analysis system, maximizing the use of skilled labor forecasters and planners at the corporate level to create efficient labor schedules and monitor actual hours.

Automation can help to get the right staff in the first place, too; the restaurant industry paradox of dealing with high employee turnover while striving for a quality guest experience isn't going to be solved any time soon. However, using a good applicant tracking and hiring management system such as those from Unicru and Taleo can speed the process and keep a useful database of candidates to fill the inevitable future slots.

F&B management isn't going to get any simpler or easier. It's always going to rely on creative people to set the atmosphere and on people-focused managers who provide excellent guest service and keep a motivated, guest-focused staff happy and productive in a world with slim margins and traditionally high employee turnover.

We're getting to the point where systems can make these tasks easier through more complete integration that provides better data consolidation and analysis and reduces the bottlenecks between different systems – or indeed eliminates the staff's awareness that there are different systems. Like all the best tools, they become intuitive and invisible to their most practiced users, and creative managers will take full advantage of them to maximize both guest satisfaction and profits.

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