Since labor costs are such a major part of the budget, each week's schedule should be prepared individually and not just copied from the previous week. Actual figures for the prior period should be checked against the forecast to identify factors that would improve accuracy, and both should be compared to the theoretical baseline. The coming week's forecast and any special events that have an impact on business are then considered, and the schedule adjusted to suit.

If cover and revenue forecasts are created by someone above the unit level (by a regional manager or food and beverage director, for instance) they should be entered into the unit's labor management system and the unit manager preparing the schedule should be barred from changing the forecast. Again, if the schedule does not meet company labor standards based on the forecast, the system should not allow the schedule to be printed or posted. The labor management system should also report on scheduled versus actual labor hours by dollar and by position for each hour of the day. Ideally, this capability should be merged with the POS system so that management can access this data in real time and make staffing adjustments as necessary.

Labor management systems also monitor position applications (which can now be online and paperless), recruitment, personnel information, I-9 status, tax status, availability, vacation, and benefit information. Actual time worked is recorded, data on tips entered and later reported per IRS guidelines, and paychecks calculated.

Many POS systems now include computer-based training courses, either on their workstations or available via the internet. This is especially important to multi-unit chain operations to ensure brand and service consistency, but can provide useful introduction and refresher training for independent outlets, too. By placing these training programs on the internet, companies also ensure that all employees receive exactly the same training in exactly the way management wants them to. General industry training programs such as those from the National Restaurant Association Educational Foundation are also highly recommended.

Automation can also help with getting the right staff in the first place; 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. Using a good applicant tracking and hiring management system such as those from Unicru and Taleo can help speed up the process and keep a useful database of candidates available to fill the inevitable future slots.

## CENTRALLY HOSTED SYSTEMS

Centralized systems for multi-unit operations are quite common in the F&B world, principally to collect sales and operations data from multiple outlets and, in the case of multi-unit branded chains, to feed down menu and pricing

changes and promotions to the individual outlet POS systems. These systems are typically more of a hybrid than the pure remote-server-plus-dumb-terminal ASP configuration, and usually have some form of local server at each site communicating with a central corporate server. POS terminals perform highly time-critical functions, and it's not acceptable for them to be down due to a network problem with a remote server. Consequently, even in a single-outlet situation many workstations can run in stand-alone mode even if their local server is unavailable, re-synchronizing data when the connection is re-established.

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

One of the more recent developments in business computing is "cloud computing." Customers engaging in cloud computing do not own the physical infrastructure serving as host to the software platform in question. Instead, they avoid capital expenditure by renting usage from a third-party provider. They consume resources as a service, paying instead for only the resources they use. Many cloud computing offerings have adopted the utility computing model, which is analogous to how traditional utilities like electricity are consumed, while others are billed on a subscription basis. Sharing "perishable and intangible" computing power among multiple tenants can improve utilization rates, as servers are not left idle, which can reduce costs significantly.

Cloud computing has yet to catch on in the restaurant industry, but it is not at all farfetched to believe that it will, especially among smaller operations for whom the cost of IS infrastructure is problematic. By commoditizing IS capability smaller operations can pay for cost analysis, IP, labor management, and other services only as they are used, significantly lowering their costs while at the same time allowing access to far greater functionality. Users can generally terminate the contract at any time, thereby avoiding return on investment risk and uncertainty.

## ROI OF RESTAURANT INFORMATION SYSTEMS

Calculating a return on investment figure for any information system has always proven to be quite difficult. Certainly for POS systems it is nigh on impossible to quantify the amount of money such systems generate in any meaningful way. We do know that information systems create value for business, but much of the value it creates is not measurable. We can, however, make some pretty good educated guesses. The value of reducing errors in the purchasing process, for instance, is significant; the National Restaurant