

Property Management Systems

OPENING DILEMMA

At a recent hotel trade show, you noticed a new property management system that seems to produce all the types of reports your current system cannot produce. The vendor at the show said she will set up a meeting with you in a week or two to talk more about this system.

How would you prepare for her visit?

The first three chapters of this text provided an overview of the hotel industry, organization of the hotel, organization and management of the front office, and interdepartmental communication, which laid the groundwork for understanding how the front office fits into a network for providing service to the guest. In this chapter, we focus on the operational aspects of the front desk department, which include considering the physical structure and positioning of the front desk, selecting a property management system (PMS), and using PMS applications.

Computer applications are central to front office operations in today's modern hotels. For new properties, computers are standard equipment; for existing hotels, computers are being integrated into everyday operations to assist in providing hospitality to guests. Computer applications include routinely processing reservations as well as handling registrations, guest charges, guest checkout, and the night audit. **Interfacing**, the electronic sharing of data, of hotel departments such as food and beverage and the gift shop through **point-of-sale**,

CHAPTER FOCUS POINTS

- Physical structure and positioning of the front desk
- Selecting a property management system (PMS)
- Using PMS applications

an outlet in the hotel that generates income (restaurant, gift shop, spa, garage); maintenance through monitoring of energy and heating and cooling systems; and security through control of guest keys are just a few of the applications that are explored in this chapter.

As you begin your career in the lodging industry, you will want to develop a thorough understanding of front office computer applications. This text does not refer to one particular computer hardware or software system; your training at any lodging property will include specific operating procedures to produce reports or review information from the database. Instead, this chapter provides general information on which you can base your understanding of computer applications at the front desk. These applications are encompassed by the term **property management system (PMS)**, a generic term for applications of computer hardware and software used to manage a hotel.

You will notice that PMS is not confined to the front office; it interfaces with housekeeping, food and beverage, marketing and sales, gift shop, controller, engineering, safety

HOSPITALITY PROFILE



Kevin Corprew, director of rooms operation at the Marriott in Overland Park, Kansas, is a graduate of the University of Houston in hotel and restaurant management. Mr. Corprew has worked with Marriott Hotels in various places and positions, including the Marriott Medical Center in Houston, Texas, as a desk clerk, rooms controller, and supervisor; the Airport Marriott in Houston, Texas, as a banquet manager; and the Marriott Courtyard in Legacy Park, Dallas, Texas, in rooms care (housekeeping and engineering), front office, and restaurant and bar areas. He also worked at the Hilton Washington and Towers in Washington, D.C., in sales.

Mr. Corprew indicates that the ambience of the front desk requires a simple, elegant appearance. Preliminary discussions of new trends in front desk structure include a walk-through for associates that allows them to pass in front of and behind the desk to accommodate guests. Also, the front desk

and lobby should be considered together in design and function.

The organization of the front desk, with its computers and vast amounts of details, revolves around an uncomplicated guideline: Keep it simple. Mr. Corprew provides plenty of key machines (electronic devices to make electronic guest room keys); ensures that all staff follow standard operating procedures, such as keeping faxes and mail in one location; and requires associates to be considerate of guests' needs. His organizational principle is continued at the time of check-in, when a 100 percent automated property management system requires the associate only to swipe a credit card and to prepare and present the room key to the guest.

Kevin Corprew urges young professionals who want to make a career in the hospitality industry to lead by example with high morals and standards. He encourages students to start in entry-level jobs so they have a basis for dealing with employees.

and security, and other departments, all of which are service departments of a hotel. Each department plays a role, along with the front office, in serving the needs of the guest—before, during, and after the guest’s stay. The front office staff coordinates the communications, accounting, security, and safety requirements of the guest. As the nerve center of the hotel, the front office handles most of the recordkeeping and so benefits most from a computerized system.

The first part of this chapter sets the stage for adopting a PMS. Software and hardware are discussed,¹ as are other considerations in choosing a PMS. The final section of the chapter discusses the various computer modules of the PMS as they apply to the lodging industry.²

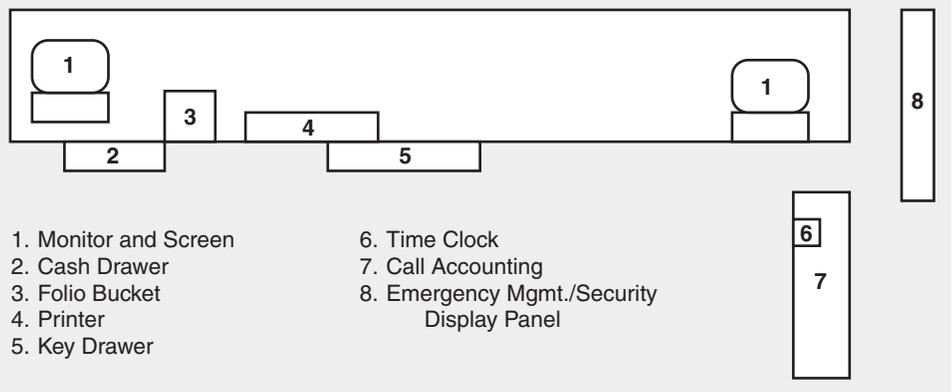
Physical Structure and Positioning of the Front Desk

Figure 4-1 shows the layout of a computerized front office. While manual equipment is still used in some independent properties, the computerized system has become the system of choice, primarily because of the needs of guests, management, and owners.

Guest First Impression

The front desk has always held a pivotal position of importance in the lodging operation. It is one of the first points of contact with the guest, and, as such, its ambience sets the tone for the hotel. Neatness, orderliness, attractiveness, quality, and professionalism are

FIGURE 4-1 The layout of computerized equipment centers on guest service and employee efficiency.



just a few of the impressions the front desk should convey to a guest. The guest wants to feel important, safe, and in the hands of professionals. The impression conveyed by the physical layout of the desk assists the front office in creating a positive image for the operation. Providing hospitality to the guest and promoting in-house sales (covered in more detail in chapters 11 and 13) are of great importance to the continued financial success of the operation. To provide an environment in which these objectives can be met, a well-planned physical arrangement of the front desk is important.

Creating a Balance Between Guest Flow and Employee Work

Equipment

The front desk should be positioned so that it accommodates the guest while enabling employees to work efficiently. Guests who wait in line for ten minutes only to be told they are in the wrong line will have a negative first impression. Likewise, a desk clerk who has to wait to use a printer or share a computer terminal will not be as efficient as possible. As you become familiar with the practice of processing guests at the front desk, you will see how easy it is to plan a layout of the physical equipment needed.

Guest Safety

The position of the front desk is usually determined by the main entrance of the building and the location of the elevator. The front desk clerk and the night auditor must be able to see anyone who enters the hotel; this helps ensure a safe environment for the guest. Positioning the front desk on the same side as the main entrance and the elevator is not recommended. Figure 4-2 shows a few arrangements that allow entrances to be monitored. In all three settings, the front desk clerk has a view of who is coming into the hotel from the street entrance and who is coming off the elevator. This view is essential to the night auditor, who assists security in monitoring the activities in the hotel lobby.

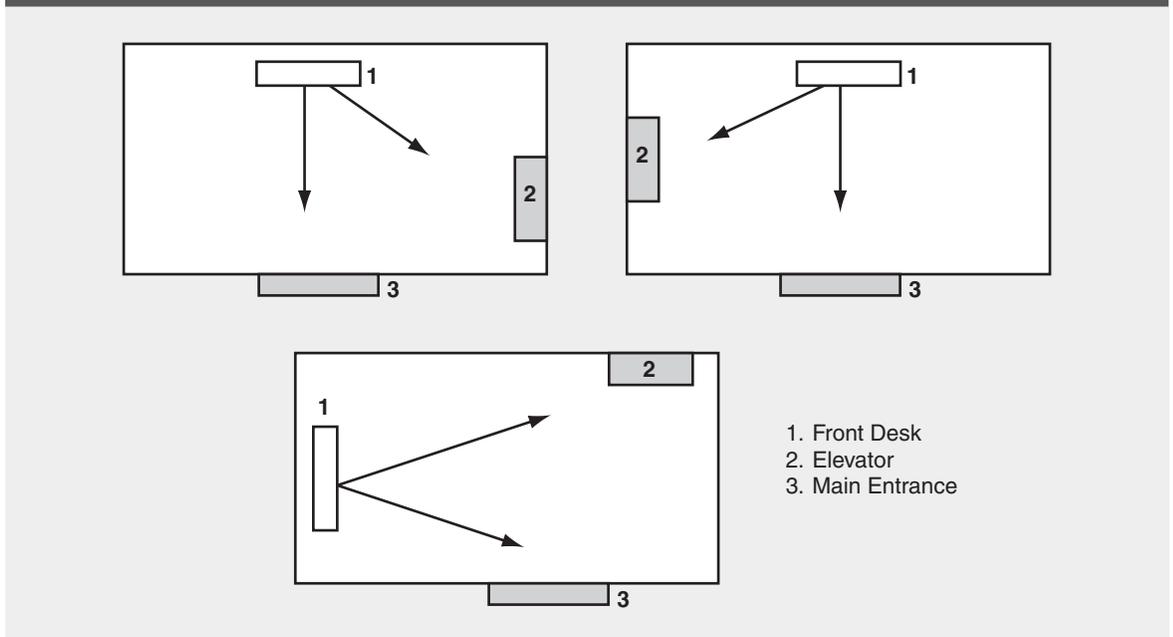
In light of the security issues that emerged after 9/11, the positioning of the front desk is even more important, allowing the front desk staff to be the front-line sentinels of the hotel. Although they may not leave their post, they must be trained to be observant and efficient in summoning the right people to investigate a situation. Positioning a hotel front desk facing the main entry and exit allows the desk clerk to more easily monitor who is entering and leaving the building—an important advantage when considering hotel security.

INTERNATIONAL HIGHLIGHTS



International translation cards, which assist foreign guests in translating travel phrases of their native language into English, are frequently kept at front desks. Foreign visitors and hotel desk clerks find these cue cards helpful.

FIGURE 4-2 Front office staff have a clear view of persons entering the lobby from the street entrance or elevator.



Selecting a Property Management System

This section focuses on the components that should be included when deciding to adopt a PMS. The decision-making process begins with understanding the importance of a needs analysis performed by a team of front-line staff members. The needs analysis should focus on the flow of the guests through the hotel and interdepartmental communication needs. A review of administrative paperwork produced by management in all areas of the hotel is also a consideration. After management has gathered relevant data concerning operational needs, it must objectively determine whether a computer will help improve guest service. Other important concepts covered here include software selection considerations and computer hardware terminology. A review of how people interact with computers and how a hotel must make provisions while hardware is being installed is also offered. The importance of computer training and planning a backup power source for continued computer operation is reviewed. The often overlooked maintenance agreement and the important financial payback complete the discussion of selecting a PMS.

Importance of a Needs Analysis

Selecting new equipment for a hotel property is best done after a needs analysis is performed.³ A **needs analysis** indicates the flow of information and services of a specific property to determine whether the new equipment—in this case, computers—can improve the flow. The bottlenecks that occur at registration or the lack of information from the housekeeping department on the occupancy status of a room can be alleviated by the use of computers at the front desk. Only after the completion of an operational flow analysis can computer applications be developed to improve the situation.

The importance of needs analysis can be most clearly seen when you consider what can go wrong if such an analysis is not made. The first area of concern for property owners and managers is cost, both initially and over the long term. As the technology has evolved and the equipment become more common, the cost of computerizing a hotel has decreased and the payback period has shortened. However, even with these lower costs, installing and operating a PMS is not inexpensive, and the cost of installing and operating a system that does not meet the specific needs of a particular property is exorbitant.

A system that works well for one downtown hotel may not meet the needs of a downtown hotel in another city or of a motel in the same area. All the technological gadgetry in the world will not impress a guest if the equipment fails to deliver service. The system must meet the needs of the staff as well as the guests. An inappropriate PMS will produce control reports that are not useful to management; the functions of such software therefore are limited, and the cost of the system exceeds its value. For example, a hotel owner who believes that a PMS will speed registrations and decides to purchase a system that does not allow housekeeping staff to input room status from the guest room phone will be disappointed.

Procedure for Performing a Needs Analysis

The following list shows the procedure for performing a needs analysis.

1. Select a team to analyze needs.
2. Analyze the flow of guests through the lodging property.
 - Reservations
 - Registration
 - Guest accounting
 - Checkout
 - Night audit
 - Guest history

3. Analyze the flow of information from other departments to the front office.
4. Analyze the administrative paperwork produced in other departments.
5. Review the information gathered in steps 2, 3, and 4.
6. Evaluate the needs that have been identified—such as control reports, communication, and administrative paperwork produced in other departments—in terms of importance.
7. Combine needs to determine desired applications.

Selecting a Team

The first and most important step in performing a needs analysis for adopting a PMS in a hotel is to select a team to determine the reports and information being generated. The analysis team should include employees at both the management and staff levels. Such a team is better able to see all aspects of the operation; management can provide input on the overall objectives, while staff is more aware of day-to-day needs. The front office manager who feels the reservation system is inefficient may find that the desk clerk not only agrees but can offer suggestions for improving the situation. This desk clerk may not know the first thing about **flow analysis processes**—preparing a schematic drawing of the operations included in a particular function—but the hands-on information provided will assist the front office manager in evaluating the reservation system. In another instance, the general manager may request that certain additional room sales analysis reports be produced by the marketing and sales department only to find the front office manager producing that information.

Analyzing the Flow of Guests Through the Hotel

The second step in the needs analysis is to analyze the flow of guests through the visit to the property, which provides a structure for this detailed analysis process. The guest stay does not start at registration but at the time a reservation is made. (In reality, the guest stay starts even before this, because guests often select a property as a result of marketing efforts.)

Issues that can be analyzed are quite diverse. They include the ease with which the telephone system can be used, the availability of room occupancy status for guests on any specific date, the length of time it takes to complete a reservation request, the method used to confirm a reservation, the procedure used to block rooms, and the means of finding a single reservation. Also subject to analysis are the methods for gathering guest information upon check-in and the processes for ensuring the correct posting of guest charges, the time required for a guest to check out, the procedure used to resolve a guest's dispute of charges, and the process for posting meal and phone charges just before check-out. How are the daily room charges and taxes posted to the rooms? How long does it

take to do this? Are any vital statistics not being produced by completion of the night audit report? How is the information assembled in the night audit? How long does it take to produce this information? Also determine if guest information already on hand from reservation, registration, and guest accounting is being applied for additional visits.

Communicating Information

The third step in the needs analysis process is to look at the information flowing from other departments to the front office. How is information concerning occupancy status received from the housekeeping department? How can a guest report an emergency or fire on the property? How do the food and beverage department and gift shop report guest charges? How does the marketing and sales department determine if blocks of rooms are available on certain dates? How does the engineering department monitor energy use in guest rooms? How does the security department ensure the integrity of guest keys? How is email used? A good PMS can embrace all of these lines of communication.

Reviewing Administrative Paperwork

The fourth step is to review the administrative paperwork produced in the hotel that is necessary to assist management. How does the human resources department maintain personnel files and former employee records? How is direct mail advertising generated in the marketing and sales department? How are function books and individual function sheets maintained? How are **tickler files** (files used to prompt notice of when certain events will be occurring) maintained? How are work orders processed? What method is used to devise daily menu specials?

Management Review of Information

In the fifth step of this analysis, management must take charge of reviewing the information compiled to determine if needs are being met. Is the marketing and sales department making mistakes because incorrect information concerning the inventory of available rooms is provided by the front office staff? Are desk clerks unable to check the occupancy status of a guest room because the housekeeping department is not providing immediate information? Have misquotes on room rates caused lost revenue for the hotel? Is the night auditor unable to retrieve room status information to confirm or guarantee reservations?

The significance of each need and the consequences if the need is not met are then established. Customer satisfaction and quality of service as well as financial implications are considered. How often have conventions not been booked because accurate information on room availability was not at hand? How much revenue was lost as a result? How frequently does a general manager receive complaints because a guest was sent to a room that was under repair or not cleaned? How often must the front office manager adjust a guest's room rate because of a misquote? How does the number of guaranteed reserva-

tions compare with the number of confirmed reservations? Why are guaranteed reservations not requested by the night auditor?

Evaluate Needs that Have Been Identified

This step requires a discussion between department managers as to the significance of the reports produced as they relate to producing customer service and financial success of the operation. Each module in the PMS will have a related cost, and the justification for that cost can be simplified if all discussions focus on the goals of the operation.

Assessing Needs Based on Findings

The final step in the analysis is to combine operational and administrative needs to determine which computer applications are appropriate for the property. Often the shared use of a room inventory database is well worth the financial investment. A word processing program to produce direct mail letters, regular correspondence, and daily menus may also justify a particular module of a PMS. The needs analysis enables you to know what you need and what you do not need and will help you choose from the many systems available.

Choosing Software

Selecting **software**, the computer programs or applications that process data such as guest information and aid in financial transactions and report generation, is more important than selecting **hardware**, or actual computer equipment such as central processing units, keyboards, monitors, and printers. The effectiveness of a PMS depends on selecting software that allows management to increase guest satisfaction and to access financial and informational data for control purposes. The information obtained from the needs analysis provides a framework for evaluating the numerous software packages on the market today.

Each software package offers numerous features; it is important to choose one package that is most appropriate for your needs. Software on the market today includes guest service, accounting, and information options that are standard in the hotel industry. Investigate the guest service features, accounting options, and information applications to determine which PMS is best for your property. Software vendor personnel will discuss with you the options that fit the size of your hotel and the needs of the guests. Hoteliers should also look forward and think of expansion and growth of their property, or perhaps change in the mix of their market. For example, one hotel may plan to add 200 rooms to the same market, while another hotel may not add any rooms but have a shift in guest type from 20 percent family and 80 percent business to 80 percent family and 20 percent business. Now the family market is doing much more dining in the restaurant (indicating a need for a point-of-sale system that interfaces with the PMS), purchasing

more in the gift shop, (another need), and indicating more gift purchases for day-trip packages (yet another need).

If you feel the applications of a particular software package will not help you manage your property, that adding a particular guest service will not increase guest satisfaction, that no significant savings will result from producing more sophisticated accounting reports, or that the arrangement of historical information about guests will not be beneficial, then you should not adopt that PMS. You control the software selection; its function is to help you do a better job. Only you can decide which applications are most useful in your facility. Some of the more common options for various departments are listed in Figure 4-3.

Examples of how the PMS modules can be applied include the following. The marketing and sales department in any size hotel will clearly find that computerization of client files, meeting room information, and guest history is useful. Preparation of direct mail for a smaller property perhaps would best be outsourced, while a larger property may make better use of a PMS module. The travel agent mode for maintaining a database of travel agents and processing their fees is useful to any size property. The night audit is almost a universal necessity to properties of all sizes. The former eight hours of labor over balancing the guest ledger and city ledger are replaced by a few keystrokes, in some cases. The front desk module, with its applications for check-in, check out, room status, postings to guest accounts, advance deposits, and cashier options, are also acceptable at both small and large properties. The call accounting system is an option that found its way into the hotel's front desk (even at smaller hotels because of the deregulation of telecommunication systems in the U.S.) before some of the other modules, such as the point-of-sale in the restaurant. A maintenance module is more appropriate for a large hotel, whereas a small hotel can rely on an in-house email system, telephone, or paper mail system. These examples, as any other technologies that are developed, should always be evaluated against goals of the hotel, the needs of guest, and a budget.

Future hoteliers should maintain a library of current PMS vendors. The Internet provides a useful and immediate resource for most hoteliers. This first step is accomplished by going to your favorite Web browser and typing in such key phrases as "property management system," "hotel pms" "hotel computer," or "HITEC" (Hospitality Industry Technology Exposition and Conference, which features all the latest computer software for the hospitality industry.) Another method of keeping your PMS file up to date is to attend local and regional trade shows. Stopping by a booth at the hotel show and discussing your current needs with a software vendor will assist you in maintaining awareness on the developments in the industry and matching them with the needs analysis of your guests.

Choosing Hardware

Choosing hardware for a PMS is not as difficult as choosing software. Today, most available hardware is compatible with standard computer operating systems (such as The Opera PMS offered by MICROS®FIDELIO, which connects with [Network] Windows NT Server 4.0 or Novell IntraNetwork 4.1; [Database] xBase running under DOS

FIGURE 4-3 Common software options in a PMS.**Marketing and Sales**

- Client file
- Direct mail
- Guest history
- Travel agent
- Meeting room information

Night Audit

- Room and tax posting
- Various operational reports

Accounting

- Accounts payable
- Accounts receivable
- General ledger
- Payroll
- Profit-and-loss statement
- Balance sheet

Human Resources Management

- Personnel files
- Time and attendance

Electronic Mail**Security****Reservations**

- Room availability
- Yield management

Front Desk

- Check-in
- Room status
- Postings to guest accounts
- Guest credit audit
- Advance deposits
- Cashier

Call Accounting

- Guest information
- Phone call posting

Housekeeping

- Room status

Maintenance

- Work orders

Food and Beverage

- Point-of-sale
- Menu profitability
- Inventory
- Recipes

6.22/Windows 3.11; or [Client] Windows NT 4.0 Workstation or Windows 95). This consideration is essential because most software programs are written to run on these standard operating systems. In short, you must choose your hardware based on its ability to handle the software; review this with your hardware vendor.

Other technology factors to consider include the following working concepts:

Processor speed: how fast a central processing unit (CPU) makes calculations per second; expressed in megahertz (MHz)

Disk drive: a place in the computer where data is stored or read; CD or DVD drive or 3½-inch floppy drive

Megabyte: 1,024 kilobytes of formatted capacity

Gigabyte: 1,024 megabytes of formatted capacity

Access time: the amount of time required for a processor to retrieve information from the hard drive; recorded in milliseconds

Internet: a network of computer systems that share information over high-speed electronic connections

Intranet: a computer network for in-house users to share timely operational information to conduct business

I/O ports (input/output devices): keyboard, monitor, modem, mouse, joystick, light pen, printer, and trackball

Monitor: a television screen with color or monochrome capacity to view input and output data, control column width and line length of display, adjust height of character display, and allow visual control

Keypad: a collection of numeric typewriter keys and function keys that allow the operator to enter numbers or perform math functions in a computer

Keyboard: a standard or Dvorak-type typewriter-style keypad that allows the operator to enter or retrieve data

Printer: computer hardware that produces images on paper

Inkjet: produces small dots printed with liquid ink on paper

Laser: produces photo images on paper

Letter-quality: a better type of dot-matrix print

Single-sheet: a type of printer that uses single-sheet paper

Modem: computer hardware that allows for transfer of data through telephone lines; expressed in baud—information transfer—rates

CPS (characters per second): measure of the speed with which individual characters are printed

Computer supplies: paper, forms, ribbons, ink cartridges, and floppy disks needed to operate the system

Megahertz (MHz): one million cycles per second; indicates computer speed

PPM (pages per minute): printing speed capability

The front office manager must be aware of the operational capabilities of the PMS. Computer texts and trade journals can help you understand the hardware options available; *Personal Computer PC* magazine, in particular, is helpful for keeping up to date with hardware configurations and software applications. Visits to hospitality industry trade shows also help keep you informed on state-of-the-art systems.

The standard hardware used to operate a PMS is shown in Figure 4-4. The basic hardware requirements are organized around the point-of-sale and customer service areas. Keyboards, monitors, disk drives, and printers constitute the basic user setup. The data manipulation and storage area is part of the mainframe, minicomputer, or personal computer.

FIGURE 4-4

Computer hardware, such as keyboards and monitors, typically have a standard setup. Photo courtesy of PhotoDisc, Inc.



The ability to interface among computer databases (sharing or networking of information) is very important. This concept must be designed into the PMS for it to contribute to the effective delivery of hospitality to the guest and to generate a return on its investment. As computer applications become more sophisticated, sharing databases is essential. For example, the information secured at the time a reservation is made can be used by the marketing and sales department to generate more business. The point-of-sale data captured in the restaurants can be reviewed by front office staff to check how they can sharpen their hospitality delivery skills for guests on arrival. For example, if the staff knows a guest likes to order a certain Italian pastry as part of his meal, then they can perhaps use that as part of the welcoming chat upon arrival. Or if a review of a guest folio reveals that she played a particular sport during her previous stay, the staff could mention the opportunity to set a start time for that sport. All of these ideas help make the guest feel important and help make a positive return on the investment for the PMS.

The positioning of the hardware at workstations should be based on the same workflow analysis used for any new process or equipment. Consider the needs of the guest (who will be the end user), the employee who will operate the equipment, and the other staff who will want access to information. The information you gain from the needs analysis will assist you in explaining your particular needs to the computer consultants who will install your PMS.

The installation of the electronic cables that connect all of the hardware must also be analyzed. Installation and replacement of cables that run through walls and floors can be costly. Proper computer functioning requires an air-conditioned environment; in guest service areas, this may not present a problem, but in other areas, it may pose difficulties.

Ergonomics, the study of how people relate physiologically to machines, is also a consideration for the front office manager. Glare and flicker from the **cursor**, a flashing point on a monitor that indicates where data can be entered, and movement on screens can cause eyestrain. In fact, it is fairly common for computer operators to require lenses to correct eyestrain. Another common complaint is neck pain due to improper positioning of the monitor. The swivel base provided on most hardware helps eliminate these problems. Pain in the wrist may also occur if the keyboard is positioned above the waist of the operator. Carpal tunnel syndrome, or compression of a nerve in the wrist and fingers, is another unfortunate result of overuse of computer keyboards. Because carpal tunnel syndrome causes extreme pain for a computer operator, the keyboard should be positioned at or below waist level. Also, pain in fingers and hands can occur with extensive entry of data on a keyboard.

Other PMS Selection Considerations

Other factors to consider in choosing a PMS are vendor claims, installation plans, training, backup power sources, and maintenance.

Vendor Claims

The prospective PMS purchaser should contact current users of the system being considered and ask relevant questions: How easy is it to operate this system? How useful are the reports you obtain? Has the vendor been available to help train staff and provide emergency service? Answers such as “I don’t know how the property could manage without it” or “It is difficult to operate, and the reports are awkward” may alert you to potential advantages or problems. (Remember, however, that different properties have different needs and priorities; a rave review because the system provides an option you consider unimportant is meaningless for your purposes.) Consider the amount of time these properties spent on needs analyses. A visit to the hotel property is worth the effort. Learning how different features of the system work, how various departments interact with the PMS, and what kinds of forms are used will help you with part of your decision. You will also develop a feeling for how guest services are affected.

Hardware Installation Plans

A careful plan for hardware installation will help the management maintain guest service and employee morale. First, it is key to determine who will install wiring or cables. Next to be determined is which hardware will be installed and at what times, followed by which departments will receive hardware first and what methods will be required to get all departments of the property **online**, a term used to indicate that a computer is operational and connected with a central computer. This information should be used to develop a flowchart, which will help departments adapt and interact using online operations.

Computer Training Programs

The training offered by a computer company ranges from classes held at the corporate headquarters to on-the-job training sessions and informal consultant hot lines. The staff that will use the computers must be thoroughly trained if the equipment is to be put to its best use. Training at the terminals should be preceded by an explanation of how the system will help staff members in their work. Some computer companies lend a dummy computer setup to a lodging property so the staff can experiment with the training modules (Figure 4-5). This allows them to make mistakes in private and to become familiar with the keyboard configuration. Documentation of procedures will also assist the staff in developing an awareness of the system’s capabilities, as will individual hotel-developed step-by-step computer application cue cards.

It is also important to note that employee resistance to change can be overcome with an early buy-in to a new concept and a user-friendly training program. The team concept will help employees overcome resistance to change because they are included on the team. Members of the needs analysis team will see an idea develop from concept to

FIGURE 4-5

Employees need time to practice using computer hardware and software. Photo courtesy of Red Lion Hotels.



fruition. Many employees resist change because they fear they will be unable to perform a new task; a training program that allows adequate time and practice will help introduce the technology and decrease this fear.

Backup Power Sources

What happens if the power goes out? This concern, as well as the possibility of **brownouts**, partial loss of electricity, and **blackouts**, total loss of electricity, is addressed by computer dealers. Battery-powered temporary energy units are used when power is lost or cut to ensure that operational data are not lost. Hotel managers who have experienced power losses are well versed in maintaining communication among the departments and posting charges as required. Once the power returns in full, the staff can catch up on posting to the electronic folio.

Maintenance Agreement

One final consideration in adopting a PMS is the maintenance agreement, which should spell out the related costs of repair and replacement of hardware and software. Allowance for emergency service and times available for general service should also be listed. Loaner or backup equipment availability enhances the attractiveness of the agreement.

Financial Considerations

Purchasing or leasing a PMS for hotel use is a major financial decision. Such an investment can tie up cash flow. If the costs and benefits are not realistically projected, profits may be in jeopardy. The first part of this chapter stressed the importance of performing a needs analysis. Hotel properties that match computer applications with needs by going through this process will achieve the most realistic assessment of costs versus benefits when adopting computers.

The controller of a lodging property usually prepares a budget in consultation with the general manager. Sales of room-nights, food and beverages, and other products and services are projected. Considered with these projections are the related costs of producing those goods and services. The controller is usually aware of the specific costs in each department—the amount of overtime pay required at the end of the month to produce the monthly inventory in the food and beverage department, the extra part-time help required to staff the front desk for a busy checkout or check-in, the cost to produce a direct mail piece for the marketing and sales office, and the fee charged by the outside accountant to produce a monthly profit-and-loss statement. This knowledge is helpful in determining how much money can be saved if a PMS were to be introduced. The amount of money that can be saved (along with tax depreciation advantages) must be equal to or greater than the amount spent on the computer system. Sometimes management may feel that less tangible benefits, such as greater service to the guest or improved morale among employees, justify the cost even when dollar savings are not quite equal.

The decision about whether to purchase or lease must also be made. The outright cost of purchase, related finance charges (if applicable), discount for cash, and depreciation are only a few of the points to review if the hotel decides to purchase. These considerations must be weighed against continuance of cash flow, application of lease payments to the purchase price, and tax advantages of leasing.

Determining the **payback period**—the time required for the hotel to recoup purchase price, installation charges, financing fees, and so forth through cost savings and increased guest satisfaction—will also assist management in deciding whether or not to install computers. If the controller reports a series of financial problems such as the following, the payback period becomes clearer:

- 5 percent of all local phone calls are not posted at the front desk
- 2 percent of sales are lost every month because guest checks are inaccurately totaled in the food and beverage department
- 10 hours of overtime could be saved through internal preparation of paychecks for each pay period

As the department directors go over their respective profit-and-loss statements with the controller, additional areas for cost recovery can be noted. The time invested in preparing an accurate needs analysis will pay off in the long run.

The above concerns of the controller include areas in addition to the front desk. Remember that the adoption of a PMS includes the management of all guest services and accounting functions. While the needs of the front desk alone—for a call-accounting system or the rental of a reservations system—may not justify the expense of a PMS, the needs of all departments can make such a system cost-effective.

PMS Applications

The property management system is organized around the functions needed to assist in delivering service to the guest. The software options listed earlier in this chapter are only a few of the many available to hoteliers. For purposes of this review, assume that the lodging property is equipped with a state-of-the-art PMS and that the system is up and running. The software program **main menu** lists on the screen all the available individual programs (modules) included in the system. Refer to Figure 4-6. These modules lie at the heart of the front office manager and his or her staff's ability to deliver excellent service to the guest because of the underlying role of communication between departments and sharing of financial information. The PMS has become so much an essential part of lodging operations that to operate a hotel without one would be very difficult. The front office manager relies on the reservation module almost hourly to check changes that may affect the day's service and financial operations. The night audit, if completed as it was in previous years—tallying columns or using a mechanical audit machine—would take much training and many labor hours. The posting module is another timesaver that produces a much more accurate and efficient-looking guest ledger.

The options shown in Figure 4-6 are similar to those previously listed in this chapter. The front desk clerk can access any of these individual programs by typing the designated

FIGURE 4-6 Main menu of a property management system.

- | | |
|----------------------|-------------------------|
| 1. Reservations | 10. Back Office |
| 2. Yield Management | 11. Housekeeping |
| 3. Registration | 12. Food and Beverage |
| 4. Room Status | 13. Maintenance |
| 5. Posting | 14. Security |
| 6. Call Accounting | 15. Marketing and Sales |
| 7. Checkout | 16. Personnel |
| 8. Night Audit | 17. Electronic Mail |
| 9. Inquiries/Reports | 18. Time Clock |

keystrokes or following directions on a **touchscreen**, a type of computer monitor that allows the operator to input data with the touch of a finger. The documentation, which consists of either printed or on-screen (monitor) instructions, explains how to operate the hardware or software that accompanies a specific PMS. This documentation comprises written step-by-step instructions as well as a flowchart of individual programs and sub-programs, all of which are valuable in training staff. The flowcharts are comparable to the blueprints of a building. The following discussion of individual modules and sub-programs highlights the applications of these software options in a property management system.

Reservations

The reservations module (refer to Figure 4-7) consists of subsystems that can receive individual guest or group data, check a guest's request against a data bank of available rooms, and store this information. The guest data are received through a personal phone call, through another computer in the referral system, or via the Internet. All of the possibilities or room types and locations, room rates, and special requests can be matched with the existing room inventories. This information can be stored for up to 52 weeks (or more) in most systems.

Information concerning guarantees with credit cards or confirmed reservations is captured at this time. Details on deposits, blocking, times of arrival and departure, VIP guest lists, and projected occupancies, and reports on these reservation functions assist the front office manager.

The guest who is checking out of the Limited-Service Inn in Dallas, Texas, and wants to make a reservation at the Limited-Service Inn in Chicago for that evening can have the reservation confirmed within seconds. The guest information is already available in the data bank, and through electronic transmissions, the request is verified (via a check of the existing room inventories held in the data bank for the Limited-Service Inn in Chicago) by a central computer. Other referral agencies follow similar procedures. (Further examples of computerized reservations options are provided in chapter 5.)

FIGURE 4-7 Reservations module.

- | | |
|---------------------|------------------------|
| 1. Guest Data | 7. Departures |
| 2. Room Inventory | 8. VIP |
| 3. Deposits | 9. Projected Occupancy |
| 4. Special Requests | 10. Travel Agents |
| 5. Blocking | 11. Guest Messages |
| 6. Arrivals | 12. Reports |

Revenue Management

Revenue management, a process of planning to achieve maximum room rates and most profitable guests (guests who will spend money at the hotel's food and beverage outlets, gift shops, etc.), encourages front office managers, general managers, and marketing and sales directors to target sales periods and develop sales programs that will maximize profit for the hotel. This module (Figure 4-8) shares similar databases with the reservations module—room inventory, room rates, reservation status, and guest information. If a hotel is entering a maximum demand sales period, the yield management module allows the reservations manager to block out that period to prevent guest requests for room reservations for less than the minimum time. Also, the computer prompts the reservations clerk on which room rate category to apply. Daily reports on how well the front office achieved maximum yield of **rack rates**, the highest room rate charged in a hotel, provides feedback to the general manager and owners. A history of guest sales in food and beverage also assists sales and marketing managers in determining if a group reservation has potential for profitability.

Registration

Guest registration modules have greatly improved the check-in process. Because information has already been captured at the time of reservation, less time is required for registration. The front desk clerk need only verify the guest's request for room type, location, and rate with room inventory and room status. Provisions for walk-in guests without reservations are similarly handled. Method of payment is also established. The hard plastic key can be issued after the security module has changed the entrance code for the room. The guest registration procedure can also be completed by the **self-check-in process**, a procedure that requires the guest to insert a credit card having a magnetic stripe containing personal and financial data into a self-check-in terminal and answer a few simple questions concerning the guest stay (Figure 4-9). (Self-check-in is discussed in more detail in chapter 7.) Also note the inclusion of the intranet in this module; it greatly supports the communication process required by the front office staff in delivering hospitality at the time of check-in.

As an example of how this module works, consider the guest who flies to Chicago from Dallas, signs a guest registration form, waits until the desk clerk checks the status

FIGURE 4-8 Revenue management module.

1. Master Rate Table
2. Per-Person Increments
3. Guest Type Increments
4. Revenue Management

FIGURE 4-9 Registration module.

- | | |
|----------------------------|------------------|
| 1. Reservations | 5. Security |
| 2. Guest Data/Registration | 6. Reports |
| 3. Room Inventory | 7. Self-Check-in |
| 4. Room Status | 8. Intranet |

of the room, and receives a key—check-in is complete. All guest information was captured when the initial reservation at the Dallas Limited-Service Inn was made. The data bank of room occupancy information provided by the housekeeper is available to the front desk via the computer. The front desk clerk chooses the room the guest will occupy and issues a key. The total time required for registration is less than five minutes.

Room Status

Access to the **room status** module provides information on availability of entry to a guest room. There are two types of room status: reservation and housekeeping. Reservation status can be open, confirmed, guaranteed, or repair. Housekeeping status can be ready, on change, or out of order. Reservation status is maintained by the reservation department or reservation system, while housekeeping status is provided by the housekeeping department. The room status feature is one of the most valuable features of the PMS (Figure 4-10). It streamlines the operation problems of check-in and assists other departments as well. This module, which may share the same room data bank with reservations, provides reports used by the housekeeper, front office manager and staff, maintenance engineer, night auditor, reservations clerk, and marketing and sales department. The housekeeper must know which guest rooms have been occupied and need cleaning; desk clerks must know if the guest room is reserved or open for sale; the maintenance engineer must plan for routine painting and refurbishing; the night auditor must verify which rooms have been sold to complete the night audit; the reservations clerk needs information on the availability of guest rooms; and the marketing and sales department must have current information on room availability for conventions. This is another module that might include the intranet; however, room status information is immediate in nature, and the posting of a message with a delayed response time may not be appropriate. On the other hand, if a series of rooms will be taken out of use for an extended period, the

FRONTLINE REALITIES



The general manager of the hotel asks you to help determine the payback period for a \$20,000 PMS. How would you begin?

FIGURE 4-10 Room status module.

1. Room Inventory
2. Availability
3. Reports
4. Intranet

intranet could be the appropriate place to post an advance notice for the marketing and sales department and the front office. Such a notice would prevent taking reservations for unavailable rooms.

Posting

The **posting** module of a PMS often supplies one of the first benefits realized by the front office manager: immediate posting of charges incurred by the guests (Figure 4-11). Not only is the posting operation streamlined but also accuracy is ensured. A PMS allows the posting to occur at the point of sale in the restaurant, lounge, or gift shop. Similarly, room and tax charges or telephone calls can be posted to the electronic folio in a very short time. Transfers and adjustments of guest charges (with approval by management) to folios are easily made. Charges incurred on behalf of the guest can be posted to the electronic folio by entering room number, amount of charge, department, and transaction type. These data are stored in memory and retrieved after an inquiry, during report generation, or at checkout. The accuracy of these charges still depends on the employee operating the point-of-sale terminal in the restaurant. Entering an inaccurate room number (room 412 entered as 712) or a reversed amount (\$32.23 entered as \$23.32) will still result in an incorrect posting.

Our guest at the Limited-Service Inn in Chicago wants to charge his valet expense of \$20.95 to his room account. After the desk clerk has processed the paid-out to the deliveryperson, this charge is posted to the electronic folio by entering the room number, amount of charge, department, and type of transaction. The night auditor verifies the integrity of all department totals.

FIGURE 4-11 Posting module.

- | | |
|------------------|--------------------------|
| 1. Point-of-Sale | 6. Paid-out |
| 2. Room | 7. Miscellaneous Charges |
| 3. Tax | 8. Phone |
| 4. Transfer | 9. Display Folio |
| 5. Adjustment | 10. Reports |

FIGURE 4-12 Call accounting module.

- | | |
|-------------------------|------------------|
| 1. Guest Information | 4. Messages |
| 2. Employee Information | 5. Wake-up Calls |
| 3. Post Charges | 6. Reports |

Call Accounting

The **call accounting** module of a PMS is a system that automatically posts telephone charges and a predetermined markup to a guest's folio (Figure 4-12). The individual subscriber to the telephone system (the lodging property) can charge a service fee for any local or long-distance call. The hotel can now use the telephone system to generate profit rather than to simply supply service to the guest. The ability to make a profit through adding service charges, combined with the increased frequency and accuracy of electronic posting, has made the call-accounting option a desirable one. However, with the increased use of cell phones, phone cards, and personal digital assistants (PDAs), telephone revenue has declined in some properties. The PMS call-accounting feature retrieves data for time, charges, and service fee and then posts these charges to the electronic folio. The accuracy of processing telephone charges is greatly increased through the use of a PMS call-accounting feature.

Checkout

The inconvenience of guest checkout (long lines, disputes over charges) is greatly reduced with the PMS checkout feature, which prints out an accurate, neat, and complete guest folio in seconds (Figure 4-13).

Disputes over guest charges still occur at the time of checkout, but not as often. The posting of a long-distance telephone call to room 295 instead of room 296 is less likely to occur with a PMS, because the PMS interfaces with the call-accounting system and the phone charge is automatically posted to the guest's electronic folio.

Efficiency at time of checkout is also improved when the desk clerk retrieves a hard copy of the folio and presents it for review to the guest. The guest has already indicated method of payment at check-in. An imprint of the credit card has been made, or prepayment has occurred. The **floor limit**, a dollar amount of credit allowed by the credit card

FIGURE 4-13 Checkout module.

- | | |
|----------------|-------------------------|
| 1. Folio | 4. Back Office Transfer |
| 2. Adjustments | 5. Reports |
| 3. Cashier | 6. Guest History |

agency, and **house limit**, a dollar amount of credit allowed by the hotel, have been monitored by the PMS. These controls help avoid high **debit balances**, the amount of money the guest owes the hotel. Last-minute purchases of products or services are automatically posted at the point-of-sale terminals.

The guest completes the checkout process by confirming the method of payment. The desk clerk may suggest making future reservations at this property or other properties in the chain or referral group. Transfers to the city ledger are made electronically at this time. Cashier activity reports are monitored, as is other information about the day's checkouts (such as number of guest departures and time of departures). A PMS can generate a **paid in advance** (PIA) listing, which monitors guests who paid cash at check-in. The PIA prevents guests from charging products or services to their guest folio.

Guests can avoid checkout lines by using **in-room guest checkout**, a feature of the property management system that allows the guest to use a guest room television to check out of the hotel. For this process, the night desk staff slips a copy of an updated guest folio under the door the night before checkout. The guest enters a few digits on the television control panel to start the process. After he or she answers questions about multiple guest accounts in the same room, accuracy of charges, and method of payment, for example, the process is complete. The guest can pick up a copy of the folio at the front desk if desired.

Night Audit

The night audit has always been labor-intensive. In addition to acting as a desk clerk and posting the room and tax charges, the night auditor must balance the guest transactions of the day. To extend credit to guests, debits and **credits**, the amount of money the hotel owes the guests, must be balanced daily. The debits originating from the various departments must be checked against the totals posted to the guest folios. The credits, in the form of guest payments, must be accounted for by reviewing the guests' outstanding balances. Although this sounds like a simple process, the procedure can be very involved (Figure 4-14).

The PMS simplifies the night audit by producing totals from departments and guest folios. These data are assembled into standard report forms. Financial information is presented in the daily report, used by the management of the lodging property to determine the financial success of a particular day. Note that the intranet can also be included in this module because the night auditor can post emails to departmental employees concerning the final night audit or other operational details from the previous evening.

FIGURE 4-14 Night audit module.

- | | |
|----------------------|----------------------|
| 1. Guest Charges | 5. Financial Reports |
| 2. Department Totals | 6. Housekeeping |
| 3. City Ledger | 7. Intranet |
| 4. Cashier | |

FIGURE 4-15 Inquiries/reports module.

1. Reservations
2. Registrations
3. Checkouts
4. Housekeeping
5. Credit Balances

Inquiries/Reports

The **inquiries/reports** feature of the PMS allows management to retrieve operating or financial information at any time. The front office manager may want to check the number of available rooms in the room inventory for a particular night, the number of guests expected to be checked in, the number of guests to be checked out for the day, the current room status from the housekeeping department, or the **outstanding balance report**, a listing of guests' folio balances. These reports can be produced easily on a PMS (Figure 4-15). The inquiries/reports feature of the PMS enables management to maintain a current view of operations and finances.

Back Office

The hotel's accounting office, known as the **back office**, uses the accounting module of a PMS, which assists in the overall financial management of the hotel (Figure 4-16). The PMS simplifies the accounting processes, which include the labor-intensive posting procedure of **accounts payable**, which is the amount of money the hotel owes vendors; the transfer of **accounts receivable**, which is the amount of money owed to the hotel, based on the guest ledger and city ledger; compilation and production of the payroll; budget preparation; the production of the **profit-and-loss statement**, which is an official financial listing of income and expenses; and the **balance sheet**, which is an official financial listing of assets, liabilities, and owner's equity at a certain point. For example, financial information concerning a certain vendor is entered once on a terminal located in the back

FIGURE 4-16 Back office module.

- | | |
|------------------------|-------------------|
| 1. Accounts Payable | 5. General Ledger |
| 2. Accounts Receivable | 6. Reports |
| 3. Payroll | 7. Intranet |
| 4. Budgets | |

office (also referred to as controller's office). This information is then reflected throughout of the accounting process. Likewise, the financial information produced through the night audit can be accessed for various reports. These and other features assist in streamlining the accounting process. The intranet is another feature on this module that is most useful in communicating to front desk staff about situations where a guest's charges may need clarification after check out or about cost centers that have incurred charges that need clarification.

Housekeeping

Obtaining current information concerning guest room status has always caused problems for the front desk staff. Guests become impatient when they are delayed check-in. Desk clerks who have not received a room release from housekeeping have no choice but to remain calm and try to appease the guests. The process of obtaining ready status is quickly achieved with a PMS (Figure 4-17). The maid or houseman enters the ready status immediately through a computer terminal on the guest floor instead of waiting to report a block of rooms to the floor supervisor. The housekeeper no longer needs to make several trips per day to the desk clerk to release blocks of rooms. The efficiency of this module depends on the continued efforts of the housekeeping staff in reporting room status.

Assigning room attendants to clean rooms can be done easily. Labor analysis of number of guest rooms cleaned by room attendants and number of labor hours required to clean guest rooms is performed faster, and the daily housekeeper's report is quickly generated. Inventory of equipment and guest room supplies is also readily available.

Maintenance requests for guest rooms can be communicated instantly through the PMS. The maintenance department staff can also check room status information to determine if the housekeeping staff noted repairs to be made. If the maintenance department wants to take a room out of service for a few days to perform repairs, this information can be relayed to the housekeeping and front desk staff through the housekeeping module on the intranet.

Food and Beverage

The food and beverage module reduces paper flow (vouchers) as well as telephone calls from the restaurants and lounges to the front desk (Figure 4-18). It also facilitates the

FIGURE 4-17 Housekeeping module.

- | | |
|-------------------------|---------------------------------|
| 1. Room Availability | 5. Equipment/Supplies Inventory |
| 2. Personnel Assignment | 6. Maintenance Requests |
| 3. Analysis | 7. Intranet |
| 4. Housekeeper's Report | |

FIGURE 4-18 Food and beverage module.

- | | |
|----------------------------|------------------------------|
| 1. Point-of-Sale | 5. Recipes |
| 2. Posting | 6. Sales Control |
| 3. Cashier Reports | 7. Sales Production Analysis |
| 4. Food/Beverage Inventory | 8. Labor Analysis |

accounting process, verifying the integrity of the point-of-sale system. Cashier reports (cash, credit, room service) are easily produced. Other features include inventory control and calculation, recipe development, pricing, item profit evaluation, and sales projections. Sales production analysis and labor analysis are also possible with this module.

Maintenance

Using a PMS streamlines the processing of work orders. Repair orders are entered by various department members. Incomplete jobs can be prioritized, and completed jobs can be analyzed for cost. Inventories of equipment and parts can be maintained. The maintenance module is also used to track energy costs and areas of use. In fact, heating and air conditioning in guest rooms can be activated at the front desk. This module enables the management of a hotel to analyze operational information of this vital department (Figure 4-19).

Security

Electronic key production has enhanced key control. Each guest receives an electronic key that has a unique electronic code, because the PMS changes the key configuration or combination for each new guest room. Blank key cards (plastic or metal) can be coded at the front desk for each new guest.

Continual monitoring is a feature of the security module of the PMS. Fire alarm systems, including sprinklers and smoke detectors in guest rooms, public areas, and operational areas are kept under constant surveillance via a **fire safety display terminal**. An

FIGURE 4-19 Maintenance module.

- | | |
|------------------------|---------------------------|
| 1. Review Work Order | 5. Repair Cost Analysis |
| 2. Room Status | 6. Energy Usage Analysis |
| 3. Cost/Labor Analysis | 7. Guest Room Power Start |
| 4. Inventory | |

FIGURE 4-20 Security module.

1. Keys
2. Fire Alarm
3. Burglar Alarm
4. Security Code Transactions

alarm system or a voice telephone monitoring system alerts guests to a fire anywhere on the property. Elevators return automatically to the main lobby or other designated floor. Burglar alarms are also monitored through this module. The security feature of a PMS monitors security codes in other modules as well (Figure 4-20).

Marketing and Sales

The marketing and sales department makes extensive use of the PMS (Figure 4-21). This department can retrieve **guest histories**—information on guests' previous stays that reveals geographic origin, telephone information, organizational affiliation, credit card usage, room accommodation preferences, and the like—from reservation and registration files. The source of the reservation (secretary, group, travel agent), type of accommodation requested, and ZIP code of business office or personal domicile are only some of the data that can be obtained from the reservation files. Additional marketing data (newspapers read, radio stations listened to, source of recommendation) can be collected at the time of registration to give the marketing and sales department information on advertising media for target markets.

Another PMS application that the marketing and sales department can use is the ability to produce **direct mail letters**, which are letters sent directly to individuals in a targeted market group. Individual letters advertising certain products and services, together with mailing labels, can be prepared. Weekly **function sheets**, listings of the daily events in a hotel such as meetings, banquets, and receptions, can be produced by assessing individual **banquet sheets**, listings of the details of an event at which food and beverages are served. Information on clients can be stored and updated as required. Contracts can also be produced. Tickler files on upcoming events are a great asset in keeping an edge on the

FIGURE 4-21 Marketing and sales module.

- | | |
|--------------------|------------------------------|
| 1. Guest History | 5. Desktop Publishing |
| 2. Word Processing | 6. Reports |
| 3. Client Files | 7. Travel Agencies |
| 4. Banquet Files | 8. Room Status—Meeting Rooms |

FIGURE 4-22 Personnel module.

1. Employee File
2. Job Control List
3. Word Processing
4. Analysis
5. Reports

competition. In addition, monthly newsletters can be produced through the word processing and desktop publishing applications. This module maintains reserved occupancy status of meeting and banquet rooms—a great organizational feature.

Personnel

The maintenance of personnel files is greatly enhanced by using a PMS (Figure 4-22). Information concerning job category, date of hire, record of orientation and training, rate of pay, last evaluation date, promotions, pay increases, payroll deductions, and the like assist management in developing a well-operated human resources department. The amount of paper involved in employee recordkeeping can be kept to a minimum. The word processing application is used to generate form letters, job descriptions, reports, employee procedures, and policy manuals. The PMS also permits labor analysis to be performed with ease.

Electronic Mail

The electronic mail feature, often called **email**, is a communication system that uses an electronic network to send messages via computers. It is helpful in distributing current information on policies and procedures to a large staff as well as communicating with current and former hotel guests. When email is used, security codes are issued to maintain privacy. Staff members are able to check their email at the computer terminal. Copies of email can be printed if needed for future reference (Figure 4-23).

In a large corporation with many company-owned properties or franchises, email allows for communication among establishments. In a hotel with many operating departments

FIGURE 4-23 Electronic mail module.

1. Security Codes
2. Mail
3. Hard Copy
4. Intranet

FIGURE 4-24 Time clock module.

- | | |
|-----------------------------------|-------------|
| 1. Security Codes | 4. Time Out |
| 2. Personal Identification Number | 5. Analysis |
| 3. Time In | 6. Reports |

and thus many department heads, this feature is a great asset to the communication process. Regardless of the size of the lodging property, the email function in an intranet configuration is a useful communication tool. Throughout this section, applications highlight its value to the front office manager and his or her staff as well as the other department managers and their staffs.

Time Clock

Individual employees are issued a security code and an individual personal identification number. Upon entering their work area, they need only enter that number to record their start time. As they leave the work area for breaks or at a shift's end, they again need only enter that number. This information is stored and used by the controller's department when compiling the payroll. This feature saves a great deal of time in calculating the number of hours an employee worked on any given day (Figure 4-24).

Solution to Opening Dilemma

Prior to the PMS vendor's visit, it is advisable to perform a needs analysis. Although such an analysis may have been performed five years ago, the needs of hotel guests, management, and operations change over time. Forming a team of frontline employees and supervisors allows for a good decision. This team should analyze the flow of guests through the duration of their stay to establish a list of guest needs that could be enhanced through PMS technology. Because the team is composed of employees from different departments, other departmental requirements, including administrative paperwork, must also be discussed. These discussions enable the team to prepare a list of ways to enhance the guest's stay, assist departments in preparing reports, and improve communications among departments. The final step is to prioritize the needs and measure them against the budget. Other considerations include verifying vendor claims, developing installation plans, discussing training programs provided by the computer company, finding out about the availability of backup power sources, and securing a reasonable maintenance agreement. Financial considerations include cost-benefit analysis, the decision to purchase or lease, and working out a realistic payback period.

Chapter Recap

This chapter reviewed the importance of positioning the front desk to allow front office personnel a view of guests who enter the lobby from the street entrance and elevators to underscore the hotel's responsibility for guest security for the guest. The guest's first impression is enhanced by the ambience, physical appearance, and orderliness of the equipment and personnel. The front office manager must establish a balance between guest service and work processing to allow for efficiency.

This chapter examined the use of computers by a hotel property, particularly in the front office. Deciding to purchase a computer system and choosing the system begins with a thorough needs analysis, a detailed procedure that allows the front office manager (and other department managers) to assess the value of automating particular systems. The process of evaluating software is a prime prerequisite in determining which computer applications best meet the needs of a particular property. The front office manager should also evaluate the hardware needed to operate the selected software package. The decision to adopt a system is further clarified by considering vendor claims concerning operation, installation, training, backup power sources, and the maintenance agreement. The financial considerations of purchasing or leasing complete the computer decision. Front office managers should be aware of the computer applications—reservations, registration, room status, posting, call accounting, checkout, night audit, inquiries/reports, back office, housekeeping, food and beverage, maintenance, security, marketing and sales, personnel, electronic mail, and time clock—of a property management system as they relate to the successful operation of a front office.

End-of-Chapter Questions

1. When arranging equipment at the front desk, what factors should be considered?
2. Why is the position of the front desk in a hotel lobby important?
3. Describe the evolving role of computers in the hotel industry.
4. Explain in your own words what a property management system is. How does a property management system help provide hospitality to guests?
5. Why should a needs analysis be performed before computers and software are purchased? What are the components of a needs analysis?
6. Why are computer software considerations more important than computer hardware considerations?
7. If you are employed at a hotel that uses a property management system, which of the software options described in the text do you use? Explain the advantages of these modules.

8. If you are employed in a hotel with a property management system, discuss computer hardware descriptions with your front office manager. What equipment does your manager find most valuable? Why?
9. Why is interfacing important in a property management system? What are some examples of interfacing?
10. What is ergonomics? How does the ergonomics of computer terminals affect the front office staff?
11. How would you go about verifying vendor claims when considering the purchase of a property management system?
12. How does a well-developed installation plan for a property management system assist hotel management?
13. Why should management be sure employees are properly trained to use a property management system?
14. If the power goes out in a 200-room lodging property for four hours, how would you preserve the data in the property management system?
15. If you are employed in a hotel, ask your front office manager if there is a maintenance agreement for the property management system. What items are covered? How well has the computer company stood behind the agreement?
16. Discuss the purchase versus lease consideration in terms of financial profitability.
17. What does the main menu of a PMS tell an operator? How is it organized?
18. Review the computer applications described in this chapter. Explain how they are used to provide better service to the guest and to improve financial control in the hotel.
19. What is an intranet? What are some uses for it in a lodging property?

CASE STUDY 401

Ana Chavarria, front office manager, and Lorraine DeSantes, director of marketing and sales, have just returned from a computer conference at which they were able to look at the latest property management systems for hotels. Ana is enthusiastic about updating and adopting front office applications for reservations, registration, room status, posting, call accounting, checkout, and night audit. Lorraine is sure the marketing and sales applications will help her department be more efficient.

Both realize the cost involved in obtaining modules for a property management system. What would you suggest they do prior to discussing this issue with Margaret Chu, general manager of The Times Hotel?

Assuming Ms. Chu is willing to consider the purchase of a PMS, how should Ana and Lorraine proceed? Whom should they include in developing a PMS adoption plan and why? What areas should they investigate?

CASE STUDY 402

The computer team of The Times Hotel is in the process of updating a computer needs analysis. The team is ready to decide which new modules should be adopted. Ana Chavarria, front office manager and chairperson of the committee, is seeking consensus on whether the team should recommend the purchase of a point-of-sale module for the restaurant operation or a guest history module for the marketing and sales department. Eric Jones, food and bev-

erage manager, says the point-of-sale module will pay for itself in six months because guests are walking out of the hotel without having their breakfast charges posted to their folios. Lorraine DeSantes, director of marketing and sales, says the purchase of the guest history module will increase business by 25 percent in the first year. The budget will allow for only one purchase. What concepts would you recommend to the team to break the stalemate?

Notes

1. CARA Information Systems, Inc.; Computerized Lodging Systems, Inc.; ECI/EECO Computer, Inc.; Hotel Information Systems; and Lodgistix, Inc.
2. Ibid.
3. Reprinted from *Hospitals* 56, no. 9 (May 1, 1982), by permission. Copyright 1982 by American Hospital Publishing, Inc.

Key Words

| | |
|-----------------------------|------------------------------|
| access time | debit balance |
| accounts payable | directmail letters |
| accounts receivable | disk drive |
| back office | email |
| balance sheet | ergonomics |
| banquet sheet | floppy drive |
| blackouts | fire safety display terminal |
| brownouts | floor limit |
| call accounting | flow analysis processes |
| computer supplies | function sheets |
| CPS (characters per second) | gigabyte |
| credit | guest histories |
| cursor | hardware |

house limit
inkjet
inquiries/reports
in-room guest checkout
interfacing
Internet
intranet
I/O ports (input/output devices)
keyboard
keypad
laser
letter-quality
main menu
megabyte
megahertz
modem
monitor
needs analysis
online
outstanding balance report
paid in advance (PIA)
payback period
point-of-sale
posting
ppm (pages per minute)
printer
processor speed
profit-and-loss statement
property management system (PMS)
rack rate
revenue management
room status
self-check-in process
single-sheet
software
tickler files
touchscreen