

# The Integrating Technology Consortium:

## A Strategic Alliance for Integrating Hotel Applications

by Galen Collins, Assistant Dean, School of Hotel and Restaurant Management, Northern Arizona University and David H. Tobey, President, Integrating Technology Consortium™

**F**ragmented hotel markets, declining or highly variable occupancy rates, and global competition are changing the way hospitality industry people access and utilize information. As a result, the automated systems used to support these activities at both the property and the chain levels must be connected in ways that accommodate changing market conditions and allow for complete information exchange. The Gartner Group, an information technology research firm, sees this as part of an emerging trend that it calls "electronic commerce."

### **Integrating Dilemmas**

---

Today almost anything can be a source of information. The point-of-sale terminal, the guest-room television, the telephone, and even the door lock are all waiting to "engage" guests or employees in electronic conversation. And increasingly, both individuals and hotels alike are interested in communicating with these smart devices. Unfortunately, very few devices or systems speak the same language, and without a common language they cannot effectively communicate.

Historically, hotels have chosen to automate discrete functions or tasks within the hotel, e.g., procuring systems for property management, telephone, central reservations, point-of-sale, etc. Selection has traditionally been based upon a system's ability to deliver specific features important for a given area of operation. Most purchases were made under the direction of a department head subject to recommendations from systems managers or affiliated chain- or management-company staff. Little or no thought was generally given as to how the system under evaluation would cooperate with other systems within the property or chain. Only when faced with duplicate entry or reporting difficulties did property managers see the need for smooth interfacing between new systems. Even then, the sole focus was likely to be limited to the sharing of discrete data in order to produce a folio or reduce redundancy.

To make matters worse, vendor support for many of these operational areas was fragmented and rivalrous, with, in some cases, more than one hundred vendors competing for market leadership. Given the wide variety of competing choices, the technology marketplace became a

hubbub of confused buyers and stymied sellers unable to make a profit. The frustration that naturally followed had several effects.

- an increased number of product versions in the market
- a tempered appetite for product upgrades and replacements
- a deterioration of customer support and satisfaction

## **Upgrades, interfaces, and tight profit margins**

---

Driven by competition and paced by technological advances, software and hardware evolved rapidly, adding functionality and features. As a result, each vendor had to increase the number of new versions it put into the market—either for general release or customized for a particular property or chain. As hundreds of vendors produced new versions of products, they stimulated a flurry of interfacing activity among other vendors whose systems gave input or accepted output from the new or modified systems. This led to high development costs for both new product releases and interface alignments that, in an ultracompetitive market, could not be balanced with price increases. Profit margins tightened.

Product developers were caught in a bind. Upgrading or replacing a single product meant, in many cases, coordinating the development, procurement, and installation of an unknown number of other vendors' products. To be competitive, developers wanted to introduce improvement but, in some cases, declined to do so because of the attendant expenses. This had the effect of elongating product life cycles. Customers were hesitant to purchase expensive upgrades since unforeseen incompatibilities could cause costly delays in time, efficiency, and service.

All of these factors contributed to a decline in the quality of vendor support. Help lines were deluged and troubleshooting staff were often stretched thin responding to problems with new releases. Clients became increasingly frustrated with the extensive vendor coordination necessary to achieve smooth interfacing. With less money to spend on development and customer support, vendors were forced to reallocate their resources. Customer satisfaction dropped further.

## **Addressing the problems**

---

As might be expected this vexing situation encouraged fingerpointing. Vendors naturally adopted a vendor-centric approach, e.g., tracing the problem to poor product development and the practice of assembling systems from eclectic sources. Vendors asserted that if one vendor developed all of the products a property or chain used, the problem of interfacing disparate products would be significantly reduced or eliminated.

During a similar period in the development of the office automation market, Lotus™ and Ashton-Tate™ unsuccessfully applied a vendor-centric strategy. Lotus introduced Symphony™ and Ashton-Tate introduced Framework™ to meet demands for integration among word processing, spreadsheets, and databases. However, in both of these cases the

product failed because the developers assumed that integration was more important than best-of-breed functionality. While Lotus provided the best spreadsheet, Ashton-Tate produced the best database. Their assumption, that competence in a functional area meant competence in producing anything, resulted in integrated mediocrity—and a market that disintegrated. Vendors in many industries have made the same mistake.

Customers responded user-centrally, certain that the proprietary solutions advanced by vendors were based on recalcitrance and desire for a bigger piece of the market. Given their way, round holes and square pegs would be eliminated and vendors would be coerced into providing standard, interchangeable products by a unified group of users—or by the government. However, this solution works only when consumers are satisfied with standardized products. When they are given access to a new technology that promotes their own competitive advantage (e.g., an enabling technology such as network topologies), they soon abandon the party line. In such cases, there is little incentive for a single buyer to boycott technological advances in favor of vendor support for the mandated standard. Given this context, it is easy to understand the inability of the American Hotel and Motel Association to develop or enforce a standard.

## **A New Approach**

---

What can the deficiencies of the above approaches teach us about improving communication and standardization among products? In its own way, each approach requires new development of an integrated suite of products, whether from one or multiple vendors. Both advocate some kind of least common denominator and would require redesign of all related products. However, another solution exists that has been successful in many other industries—the development of an integrating standard that allows for product diversity while ensuring interapplication communication of information.

This integrating approach uses a vendor tool kit to provide a standard communications platform to which proprietary vendor products can be connected. The proposed solution enables one vendor's product to publish information to which another vendor's product would subscribe. Users can then select information they would like to consolidate and analyze across departments or throughout a chain.

To explain this approach, let's return to the example set by the office automation market. Microsoft observed the failure of the integrated solutions and, along with its vendor alliances, created an information-centric approach which focused not on the feature sets of the products but on the information that had the greatest utility of both products and users. By creating the technologies of Dynamic Data Exchange™ and Object Linking and Embedding™, Microsoft enabled diverse products to interchange information, giving the appearance of an integrated solution

without losing the value of the specialized expertise that each vendor brought to the market.

## **The Integrating Technology Consortium**

---

The Integrating Technology Consortium™ was established in 1993 by a group of leading hotel technology suppliers to promote the development of an integrating standard that allows for product diversity and true information exchange. Through the support of an industry standard, the ITC will enable the user to choose best-of-breed feature sets for each functional area of operation (the preferred approach of users) while ensuring communication and integration among the products. At the same time, vendors supporting the standard are assured that their proprietary differentiations are protected.

The ITC Seal of Approval will guarantee users an easy upgrade path, lower ITC vendors' support- and development costs, and increase customer satisfaction. The result should be an increased use of technology by hotels and improved profitability for ITC members.

Alliances such as the ITC have frequently been formed to accomplish specific goals that were too demanding for any one vendor or party to achieve. With the ever-accelerating pace of technological change and the globalization of business, vendors cannot act alone to accomplish seamless exchange and navigation of information independent of location, media, or technology platform. In this environment, an information partnership becomes an especially cost-effective strategy to dissolve integration obstacles and to speed product innovations.

The development of an integrating standard can also be seen as of the highest strategic importance to the hotel user community, because it redefines the industry competitive structure in favor of the customer, resulting in more powerful, less costly products.

## **Conclusion**

---

Today's competitive environment requires information consolidation for decision support and streamlined work flow. This, consequently increases the need for integrated information. The challenge today is how to enable these systems to achieve integration without requiring them to undergo extensive modification or expensive upgrades. The only way to meet this need is to adopt an integrating technology strategy. The ITC has been hailed as a viable vehicle for making this happen.

## **ITC corporate structure**

---

The corporate structure of the ITC is modeled after that of the Microelectronics and Computer Technology Corporation, a cooperative enterprise that has successfully developed standards and enabling technologies for the data processing, electronics, aerospace, and manufacturing industries. Both MCC and the ITC are private corporations that license products to their members. In many cases, the members also choose to become shareholders. Both organizations were founded according to the guidelines of the National Cooperative Research Act of 1984, enacted by

Congress to promote joint research and development, encourage innovation, and stimulate trade. Under this act, research and development of standards and "basic engineering techniques and tools" can be accomplished jointly, and member companies are afforded limited protection against antitrust actions. However, an organization developing products under the protection of the NCRA cannot:

- allow the exchange of competitive data regarding costs, sales, prices, profitability, etc.
- restrict the production or marketing of any product other than that developed by the consortium
- restrict the sale, licensing, or sharing of technology developed by its members
- restrict the participation of a party in other research and development activities

## **Membership**

ITC has emulated MCC's tiered membership structure, basing it on the level of involvement and financial stature of member companies. Annual membership dues range from \$150 to \$25,000, based upon the level of participation and the member's revenues in the travel, restaurant, and lodging (hospitality) industries. All interested parties in the hospitality market are encouraged to join. Vendors and development organizations may join as either contributing or supporting members. Contributing members contribute to the development of the standard; supporting members receive the resultant program specifications. Users, consultants, and educational institutions may join as associate members.

## **Founding Members of the ITC**

### **Vendor Members**

Aeronomics  
 American Express  
 AT & T GIS  
 Cyntergy  
 Hitachi  
 Homisco  
 Hotel Information Systems  
 RESCOM Service  
 Senercomm  
 Southern DataComm  
 SpectraVision  
 SPS Payment Systems  
 THISCO

### **Associate Members**

Forte  
 HIT A  
 Holiday Inn  
 Marriott Corporation  
 O'Neal Communications  
 Radisson International  
 Ritz-Carlton