

# Real-World TECHNOLOGY

SUMMER 2003

Field-proven solutions for the hospitality industry

## RESTAURANT CONSULTING

### Real-World Flexibility

NCR's proven consulting services help restaurants find the right solution



### CASE STUDIES

- ▶ Flexibility For All
- ▶ Making A Strong Business Case
- ▶ On The Fly Customization
- ▶ Kitchen Displays At The Forefront



*Supplement to Hospitality Technology*

## FINDING THE RIGHT FIT

*NCR's consulting services reduce the risk of technology decisions*

**M**ost restaurant executives know all too well the risks associated with operating foodservice establishments. Even if a restaurant is situated in an ideal location (typically the first consideration for any store plan), it can fail for a variety of other reasons.

A point-of-sale (POS) solution for a typical quick-service or table-service restaurant can run tens of thousands of dollars. It is critical for operators to do everything possible to mitigate the risks that come with such investments and make sure that the system will work in real restaurant environments. According to restaurant executives who participated in the Fifth Annual Restaurant Industry Technology Study from *Hospitality Technology*, the most often cited risk associated with IT investments was the adverse impact on day-to-day operations.

### **Pre-Testing**

That's why it's important for any new store-level system to be pre-tested in "live" environments. And because restaurants of all shapes and sizes have varying sets of technology requirements, they need to be able to combine proven hardware with multiple software modules to create flexible and customizable solutions.

"Given the intense competitive environment in the



*Clyde Dishman,  
Hospitality Industry  
Vice President, NCR*

restaurant industry, operators increasingly need realistic and objective ways to evaluate the economic value and payback of technology," explains Clyde Dishman, NCR's hospitality industry vice president.

NCR offers a broad range of consulting services to help foodservice operators minimize risk by collecting and analyzing quantitative data on store performance and quantifying the business value and return on investment of store-level systems.

These are accomplished via two key practice areas. NCR's Human Factors Engineering (HFE) team provides the quantitative data for

evaluating current store-performance levels and user-interface designs, while its Business Impact Modeling assesses the value of technology, allowing restaurant operators to make informed and strategic business decisions.

### **System Usability**

HFE concentrates on store performance improvements that allow the foodservice operator to identify areas to increase revenues and improve operational efficiency and customer service. "HFE has demonstrated the ability to assist the restaurateur in many facets of the business, whether in technology or purely operational areas, such as work flow design or ergonomic assessments," Dishman adds.

The two focus areas of HFE are store performance and user-interface design. The store performance group measures key store-level metrics to assess pro-



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ductivity at the point of sale, as well as ergonomics and technology, and then compares that to other best-in-class restaurant practices. The resulting quantitative data is used to conduct cost/benefit analyses of recommended solutions.

The second focus area relates to the usability of the system. When a restaurant's employees are not productive and customer-service levels are not up to snuff, such problems can often be traced to the design of the POS interface, ranging from complicated screen layouts, inappropriately sized buttons and the poor use of colors for different menu items. HFE quantifies productivity levels of an existing system by surveying the needs of front-line restaurant employees to ensure that any recommended solution is easy to use and easy to learn.

For example, HFE developed a series of more than 200 guidelines for touch-screen POS applications, which outline the best practices for designing software that improves productivity, reduces training times and facilitates usability.

### **Mitigating Risk**

Operators are clearly concerned about the financial risks associated with investments in technology. The study conducted by *Hospitality Technology* asked survey participants to indicate the methods they use to measure IT success. More than 70 percent indicated that their firms employ measures of customer satisfaction and return on

investment (ROI). Yet, it can be difficult to calculate the business value of those measures.

NCR's Business Impact Modeling (BIM) can address those difficulties by assessing whether the benefits outweigh the expense of a new technology. This service uses a vendor-neutral, predictive tool that quantifies the value of technology using an operator's existing performance measures, which can be either financial (e.g., revenue gains, expense reductions and profit improvements) or process-related (e.g., reduced service times and higher customer counts).

"This model allows our customers to make sound business cases that their investments will deliver improved operational excellence and true benefit, even before any system is installed," Dishman says. "These two strategic tools are further evidence of

how NCR assists operators in making IT and operational decisions that will help them meet their strategic goals."

The case studies that follow exemplify how NCR and NCR RealPartners have developed solutions tailored to the needs of restaurant operators, reducing risk and delivering quantifiable benefits through greater return on investment and lower total cost of ownership. Four NCR partners tell how they have adapted their technology to meet specific restaurant needs. ▲▼

## **Flexibility in Action: Four Case Studies**

### *Flexibility for All*

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- ▶ Aloha Technologies and NCR partner to provide flexible hardware and software combinations. Even small restaurant operators can find the ideal combination of software power and hardware platform to meet their exact needs in each restaurant location.

### *Making a Strong Business Case*

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- ▶ It is hard enough running a restaurant without trying to figure out a cost-benefit analysis for every technology implementation. Fortunately, NCR's Business Impact Modeling service and Compris software mitigate the risk of a technology upgrade.

### *On the Fly Customization*

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- ▶ By applying NCR's Human Factors Engineering analysis to Progressive software, restaurants can tailor their systems to work in real-life environments.

### *Kitchen Displays Move to the Forefront*

Page 10

- ▶ Flexible solutions combining Select Electronics kitchen display systems and NCR hardware help restaurants improve quality control and enhance customer satisfaction.

# FLEXIBILITY FOR ALL

*Hardware, software partnership benefits operators of all shapes and sizes*

Increasingly operators are seeking ways to reduce total cost of ownership (TCO), be it a global sandwich chain or a small-town diner. And smaller multi-unit operators and even single-unit operators are demanding the same solutions used by national chains.

## ► A platform to build on

“Operators want to have something that is scalable, and a platform that they can build on rather than have to rebuild a few years out,” says Randy Smith, president of Forum Systems Group, an Aloha Technologies reseller based in San Antonio. Smith’s typical customers are operators who own or franchise up to 25 units and high-volume independent restaurants.

But it also means being flexible when it comes to platforms and migration paths. From an OS standpoint, Smith states that the award-winning Aloha point-of-sale solution can be ported to various versions of Microsoft® Windows® and connects from the basic PC on a cash drawer to today’s advanced terminals, like the NCR RealPOS 7454, with no changes to the user interface.

Aloha customers have also been able to take advantage of consistent enhancements to the application, which addresses TCO concerns. “A customer who bought a system in 1996 can run the same as someone who bought a new system today,” Smith adds. He noted that the only expenses over that seven-year span were software maintenance and hardware upgrades.

For example, Smith alluded to consistency benefits realized by MTC Inc., which owns and operates three high volume Mexican restaurants in San Antonio—La Margarita, Pico de Gallo, and the landmark Mi Tierra, which has been open for more than 50 years and is open 24 hours a day, seven days a week.

## ► Consistent user interface

“They upgraded to a new system after five years but because the user interface remained consistent, they didn’t have to retrain their staff at all,” Smith recalls. The only changes were either new functions like the ability to scan bar-coded checks into the registers, or new hardware, like the NCR RealPOS 7454:3200 terminals that were installed last year at Pico de Gallo.

As with solution partner Aloha, NCR Corporation was flexible in serving the needs of MTC Inc., which is one reason MTC has been an NCR customer for 21 years. For example, Mi Tierra’s 18-terminal site required high mega-hertz processors in 1999, but the company was able to purchase the same hardware for the Pico de Gallo restaurant, reducing their costs by installing terminals to match the necessary processing speed and data capacity of MTC’s smaller concept.

Smith, whose company also migrated MTC’s restaurants from previous NCR systems to its current terminals, also notes NCR’s post-sale support and service. “NCR is able to provide service and parts to all operators, irrespective of their size or unit counts. This is a real benefit to independents and other operators who do not have IT staffs,” he says. ▲▼

“Operators want to have something that is scalable, and a platform that they can build on.”

Randy Smith

Restaurant Clients:  
Checkers  
Jamba Juice  
Main St. and Main  
RARE Hospitality

### HARDWARE AND SOFTWARE FLEXIBILITY

*MTC’s family of Mexican restaurants all use Aloha point-of-sale software running on NCR hardware, but have adapted the configuration to meet the differing needs of each restaurant concept.*

RESTAURANT	POS HARDWARE MODEL
La Margarita	NCR 7454: 2200
Mi Tierra	NCR 7454: 2100
Pico de Gallo	NCR 7454: 3200

[www.alohapos.com](http://www.alohapos.com)

# MAKING A STRONG BUSINESS CASE

## *Business impact modeling mitigates risk for operators*

Quick-service businesses face critical challenges that affect their need for speed and efficiency. Oftentimes, operators know these challenges must be addressed by upgrading their systems, but are concerned about getting a return on their investment. NCR helps to mitigate that risk by identifying and quantifying the expected benefits of deploying the quick-service solution from Compris, a wholly owned subsidiary of NCR, with NCR RealPOS touch-screen terminals.

### ► Lab testing solutions before implementation

“We have a team that assists operators to determine payback by providing business impact models (BIM) and lab testing of solutions before any implementation,” states Clyde Dishman, hospitality industry vice president for NCR Corporation. The BIM framework quantifies the value of technology using customer-specific performance measures and financial metrics.

Dishman notes that an NCR business impact analysis was recently performed for a quick-service operator that was looking to replace its point-of-sale system. The Compris application was found to increase speed of service by 30 percent, which improved worker productivity levels and allowed for more transactions to be processed. Based on the client’s transaction volume during peak periods and a 20-percent improvement in productivity (attributed to optimized graphical user interface of the Compris solution), the average store could potentially realize additional revenues per unit of more than \$40,000 a year.

The analysis also demonstrated how the Compris/NCR touch-screen implementation helped reduce food and labor costs. Based on a reduction in order entry errors, the projected food cost savings was about \$1,000 per store/per year. Additionally, the training module of the Compris application allows new associates to learn the solution unattended. The operator found that this feature could reduce training times by 33 percent and decreased dedicated “shadowing” time for managers by 74 percent, creating annual store-level savings of more than \$800.

#### Example of Business Impact Modeling Results for One Restaurant

*Projected Annual Benefit (Speed of Service)*

Productivity Improvement Factor	Annual Sales Increase
20 %	\$42,098
40 %	\$84,195
60 %	\$168,391

“We have a team that assists operators to determine payback by providing business impact models and lab testing of solutions before any implementation.”

*Clyde Dishman, NCR*

Restaurant Clients:  
 Au Bon Pain  
 Burger King  
 Fuddrucker's  
 Taco Bueno

### ► Making the case for ROI

All told, the projected revenue gains and operational efficiencies total close to \$100,000 per store, which makes it a very good investment. Other areas of potential impact, such as at the drive-thru lanes, represent more than 60 percent of an average fast food restaurant’s annual sales.

The Compris solution improves front-end speed of service by close to 30 percent, thus further impacting the drive-thru efficiency. These types of ROI analyses make a strong case for why leading quick-service chains have chosen the Compris solution. Such ROI makes a strong case for why leading quick-service chains have chosen Compris. ▲▼



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# ON THE FLY CUSTOMIZATION

## *Human factors engineering for customized technology solutions*

**D**esigning software with human factors in mind helps Progressive Software provide technology solutions that assist its customers in operating and managing their restaurant chains more effectively.

How does this leading software provider assure its solution is on target with customer needs? One way is through its partnership with NCR. Benefiting from its alliance with NCR, Progressive's IRIS (Intelligent Restaurant Information System) point-of-sale (POS) and back-office solution was put to the test.

Using a set of best practice guidelines developed by NCR's Human Factors Engineering (HFE) group, IRIS was evaluated against more than 200 guidelines measuring usability, user interface design, and visual design. In-store usability was evaluated as well, through observations and interviews conducted by HFE with sales associates during on-site visits.

### ► Meeting the guidelines

The evaluation process served two purposes for Progressive. First, it validated their focus on human factors and the value of a corporate culture rooted in real restaurant experience acquired from owning and managing restaurants. Second, it identified areas needing attention for continuous improvement.

The results were as visually pleasing as the IRIS user interface. Of the guidelines that applied to IRIS, 85 percent were met in some form, and of those, close to 90 percent were met completely.

The in-store observations reinforced these findings as interviews with cashiers revealed a consistently positive experience in ease of use and cashiers' ability to use the system without assistance. NCR agreed and presented Progressive with an Interactive Design Award recognizing Progressive's outstanding IRIS application for its usability, user interface design, visual design, and end-user feedback.

### ► On-site tests

Such on-site tests are critical because they allow Progressive to identify areas for improvement and customize solutions to optimize worker productivity, minimize usability issues, improve customer service levels and reduce training times. For example, one recommendation was to add a visual cue when a button is touched (such as a change in the button's color), in addition to the existing audio cue, as background noises in a quick-service restaurant can muffle the audio feedback.

"We are delighted to have won this award as it is a testament to our 20-year focus on the customer partnership process," said Tom Saari, Progressive's senior vice president of sales and marketing. "This project had the customer at its heart and was about more than technology. We feel our products and services are unique in this regard. This award reinforces our efforts and is a great measure of success."

"This project had the customer at its heart and was about more than technology. NCR's Interactive Design Award reinforces our efforts and is a great measure of our success."

*Tom Saari, Progressive*

Restaurant Clients:  
Burger King  
Hardee's  
Jack in the Box  
Steak 'n Shake

### Human Factors Engineering

*NCR measures more than 200 guidelines in 24 separate areas in its Human Factors Engineering. Here are some examples of the focus areas and the number of specific criteria for each.*

FOCUS AREA	# CRITERIA MEASURED
Accessibility	14
Alert messages	9
Button design	18
Electronic receipt	20
Use of sound	16



# KITCHEN DISPLAYS MOVE TO THE FOREFRONT

*Select, NCR let operators find the optimum hardware combination*

Once upon a time, kitchen display systems (KDS) were viewed as a static, or even generic, part of a restaurant's point-of-sale solution set. Not any more. Leading that charge is Select Electronics Corporation, an NCR partner for more than seven years.

## A select history

Since introducing its first KDS in 1993, the KC4000, Select has forged a history of innovation and developed three generations of products to meet the diverse demands of quick-service and casual chains.

Many restaurants still have limited networking capacity. To address this demand, in 1998, Select Electronics introduced the OAsys, an integrated, 32-bit KDS. With OAsys a restaurant can operate up to four video display stations within a compact architecture. Hence all displays run on either a single RS232C port, or from a single IP address on their LAN or WAN.

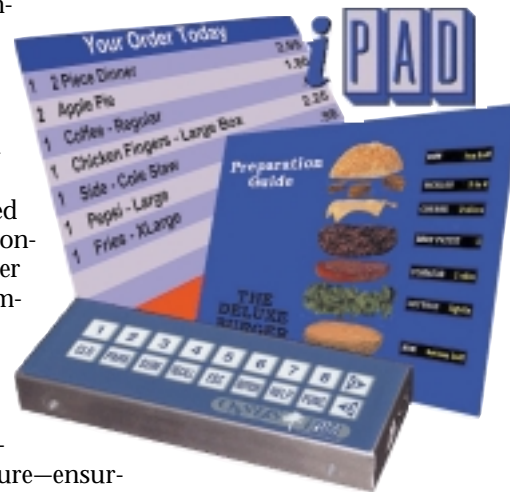
The OAsys sports an easy-to-use bump bar with customizable keys, direct hookups for RS-232 and Ethernet connections, built-in help screens for food prep instructions and various on-screen diagnostic tools. For example, SEC's Dashboard utility provides instant Ethernet or RS-232 access to each kitchen display for checking operational status, conducting diagnostic tests and flashing software updates from any Windows-based PC or register. The Dashboard also monitors and logs activities verifying proper installation and operation of each component of the kitchen network.

Restaurant chains that run distributed systems either run geographically dispersed terminals at a single site, or simply want extra protection against a single point of failure—ensuring that the point-of-sale and kitchen subsystem will still operate seamlessly should one device on the network go down. With greater networking integrity in mind, Select's newest addition to the OAsys product line is the OAsys Ipad KDS. Recently introduced to be compatible with the OAsys KDS, it offers the same features of the OAsys KDS, but each display unit is its own video-processing center.

## Custom fitting bump bars

Both the OAsys and OAsys Ipad come with kitchen printer support, multiple display screen modes and formats, upgradeable memory, flash-able programming, unlimited video port expansion and a universal position bump bar mounting bracket, allowing operators to fit the bump bar to their needs.

As an NCR partner, Select Electronics has performed installations with virtually all point-of-sale vendors; thus it can provide efficient interfaces to virtually all software applications. And whether operators opt for its hardware, remote order display software, or utilities/diagnostics offerings, Select's products have a history of reliability. All products in use for the last seven years are included in its annual product reliability performance criteria. ▲▼



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Restaurant Clients:  
Golden Corral  
Krystal Co.  
Long John Silvers  
Olive Garden





NCR's best-in-class software, hardware and service solutions address the operational needs of the hospitality and foodservice industries. With real-world technologies that use the world's most advanced open software and innovative hardware solutions, NCR delivers products that are quickly and easily configured for every functionality from quick service to fine dining.

This is the third of four special supplements produced in affiliation with *Hospitality Technology* magazine. For further information about NCR's real-world solutions for the hospitality industry be sure to contact:

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