



Home Technology Products



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The Recipe for a Smart Kitchen

Connected kitchen solutions help families control their hectic lives

By Jay Heuer



Today's busy families need solutions. With [Ads by Google](#) soccer games, dance rehearsals and late business meetings, parents and kids are on the go now more than ever. There are always a million things to do and never enough time to do them. Fast food and convenience meals supercede nutritious fresh foods and home cooking, and the quality time families plan to spending together is often squeezed out by work, extra-curricular activities and chores.

What is driving the integration of smart technology into residential kitchens? Consumers are beginning to seek better ways to take control of their hectic lives. People are demanding a new level of

convenience--a way to enhance and simplify their lifestyles. Many are finding the answers to some of their everyday problems with connected kitchen solutions.

A Pilot Program

After years of speculation, the connected kitchen is finally a reality. Internet Home Alliance, a cross-industry network of leading companies advancing the home technology market, and a group of its members--Whirlpool, Hewlett-Packard, IBM, Icebox and Sears--are working together to perfect a system that will enable consumers to use network-enabled appliances to simplify kitchen and meal preparation tasks. The initiative, called Mealtime, allows consumers to access recipes, develop shopping lists, order groceries, manage the family calendar and have a meal prepared at a set time.

Tomorrow's kitchen will boast better entertainment capabilities, using TVs and Web tablets. It will allow the caretaker to control appliances through those devices as well as monitor their status. The kitchen also will extend beyond its four walls. For those appliances that perform operations without the direct involvement of the consumer, remote access will be available. Family members can access their

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family's e-mail, calendar and to-do lists both in the kitchen and anywhere through the Web. Online grocery shopping will be done right there in the kitchen instead of on the computer in the den or office.

When it comes to home technology products and services, consumers are going to buy appliances that help them get things done with less effort. These smart appliances will help families carve out more time for the truly important things in life.

As people continue to see their homes as a "refuge" from the hectic world, the kitchen continues to be the focal point of the house. In most homes, the kitchen is a social center as well as a food preparation area. Consumers take great pride in providing home-cooked meals for their families and enjoy spending time together at the dinner table. But it appears the activities around meal preparation may be a tremendous source of frustration.

With the numerous everyday pressures of most families, getting everyone together for a meal may sometimes seem like a monumental effort. According to a recent survey, some of the biggest challenges facing families at mealtime are preparing meals that please the whole family, getting family members to try new foods, coordinating family members' schedules and quickly getting dinner on the table.

Because every family's lifestyle is unique, it is a must that the solutions remain flexible and upgradeable so that as a family's needs change or technology advances, the products and services still remain relevant and valuable.

There are new products on the market that are helping consumers tackle these dinner dilemmas. The Polara Refrigerated Range from Whirlpool allows the cook to put a casserole in the oven in the morning, keep it refrigerated, set a time for it to begin cooking and have a meal ready when the family gets home.

The Mealtime pilot developers also have addressed the concern of changing schedules and unforeseen delays. They've added a network interface card inside the Polara to provide remote access to it through either the Internet, a mobile device like a Web tablet or even a cell phone.

"One day, my family went to see my daughter perform in a ballet. I had slipped dinner into the oven before leaving the house. After the show, we stayed out a little longer than expected, so I was able to call my oven and extend the warm," said Richard Baughman, Boston Pilot participant. "Dinner was perfect when we got home, happy and satisfied after seeing a wonderful show and hungry and ready to enjoy a meal right away."

Ever wondered whether the stove was on when you left the house? Now, the nagging question can be easily answered. By accessing the kitchen through a cell phone, the stove can even be turned off remotely. Even the safety aspects have been thought through. The oven cannot be turned on remotely unless it was put in a control-remotely mode. This feature prevents accidents.

The networked kitchen creates a wide range of useful applications for homeowners.

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Consumer Response

Consumers have become accustomed to technology that enables them to customize products and services to their habits and needs. While the actual interface remains the same for all Mealtime applications, what the interface does may vary from family to family.

Now, consumers can have access to their family's calendar, recipes and the Internet at their convenience. The benefit isn't necessarily saving time, but better use of time. The ways the Boston participants are using the applications are all over the board, as are their responses to how the proposed concept might benefit them as individuals and families.

"I enjoy being linked to the outside world through my kitchen. I can order groceries easily, my kids can check e-mail from grandparents, as well as work together as a family in the kitchen," Carla Graham said. "There is something for everyone in that room now, so while I'm preparing meals, my family is with me and we're doing things together that we weren't able to do before."

Most busy consumers would agree that if something is a pain to figure out, they are not going to waste time trying.

Life itself is complex. Consumers would surely reject any solution that adds another level of complexity. Easy to use isn't easy enough. Interface usability was a major concern in project planning and design from the beginning. Most busy consumers would agree that if something is a pain to figure out, they are not going to waste time trying.

Instant gratification also is an expectation of most consumers. That means manufacturers must address perceived needs and deliver compelling value in the first few uses. People seem to accept that advancements in technology may require a shift in behavior, but they evaluate it in terms of improving the quality of life, not just technology for technology's sake.

Product reliability is critical. When integrating technology into everyday tasks, the consequences of any failure may disrupt the family's activities, resulting not only in inconvenience but in emotional distraction. The speed of development cannot compromise reliability.

The Next Step

The home networking market is in the early adopter stage and has yet to cross the chasm into mainstream. In order to make that transformation, consumers have to feel that they are making an investment in their quality of life.

Today's home networking visionaries are willing to do much of the work in pulling their system. Yet the next segment of users will want a totally integrated solution that requires no such effort and comes with positive reviews by peers. The availability of non-intrusive network technology and intelligent, affordable

applications will escalate consumer demand and drive the market.

People will see how technology, backed with the power of the Internet, can have a positive impact on the way they work, play and live. Only then will consumers truly realize that these products can provide them with the freedom, control and peace of mind that they have been seeking in their own homes.

Eventually, homes will monitor, predict and adjust to stimuli, human activities and environmental conditions. Arrays of sensors will feed home agents that learn habits, preferences and lifestyles, thus acting on our behalf as personal concierges.

In the meanwhile, this alliance delivers a clear signal that its member companies are committed to meeting the consumer-directed specifications that will make the connected home a reality.

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