

Mobile Handset analyst

THE INTERNATIONAL BUSINESS NEWSLETTER OF DEVICES, COMPONENTS, SOFTWARE AND SMART CARDS

Copyright

Usage of this PDF and any files attached to it are restricted by your licence agreement with Informa Telecoms and Media. Exceeding the terms of your licence by distributing this PDF or placing on any internal or external network is considered breach of copyright. Such instances are punishable by fines of up to US\$100,000 per infringement

To check the status of your licence or arrange for additional user access please contact:

corporate.sales@telecoms.com

FROG DESIGN

Design firm says mobile players could learn a thing or two from PC brethren

Mobile content is suffering a malaise caused by lack of attention to the way it is presented and accessed on mobile phones. That is the view of U.S.-based design agency Frog Design, which is pushing for a fresh approach to mobile applications based on creating an ecosystem that benefits all players in the value chain, writes Michael Carroll.

The growing capabilities of mobile phones often lead to comparisons between handsets and personal computers. Mobile devices are now easily on par with early PCs in terms of processing power and functionality, but the industry has struggled to cash in on the capabilities with “killer” applications.

The search for cash cows has been going on for five years. Multimedia content in the form of mobile music and television have provided some hope, but Frog Design says mobile players has not gone far enough in terms of creating an industry setup that benefits all links in the chain: the applications developers, carriers, and handset vendors.

The firm has developed a widget-based approach for U.S. carrier Alltel that is due to be deployed on all the carrier’s devices by end-2007. Widgets are graphical web-based applications that run over a browser and have been used by the PC industry to boost the number of third-party applications available.

Mark Rolston, a senior vice president at Frog, says the wireless industry must learn the lessons of the PC world. “PCs have a healthy ecosystem of players,” he told *MHA*. “Original [PC] vendors, software firms, individuals and retailers can all take part in defining what a PC is.” He added that the basic unit shipped by PC manufacturers is quickly customized to suit the needs of individuals or companies.

Customization is something of a mantra at Frog. The firm says it believes in designing products that satisfy functional and emotional needs. Rolston uses clothing as an example, saying that we all need clothes to keep warm but that they can also make a statement about who we are. “Design is all about solving a need and satisfying the emotion,” he said.

The question for the mobile industry is whether the current crop of applications ticks either box in the design equation. Rolston says the level of customization available on handsets is too low, pointing out that the after-market parts industry for automobiles is a billion-dollar industry. “They

have a whole ecosystem for customizing the car ... and you can then put aftermarket parts on it,” he said, pointing out that all of the elements enable customers to make their car as individual as possible.

Leading mobile-operating-system firms might argue that their products have already created an ecosystem for mobile applications, with market leader Symbian able to offer applications developers the chance to deploy their product on devices from leading global vendors. Symbian’s closest rival, Microsoft, offers mobile applications from thousands of developers, in part because of its strong position in the PC market. But Rolston wonders whether the current range of mobile OSes satisfy any emotional need the end-user has, adding that the bulk of today’s mobile applications are fairly “superficial” and do not go far enough in terms of offering the services subscribers want. “The end-users are a much more powerful force [in application development] than designers,” he said.

In other words, because end-users haven’t been consulted in the process of creating mobile applications, those applications and the way they are presented on the handset are unsatisfying.

The Alltel affair

Alltel hired Frog to address the situation, giving the design outfit the tasks of promoting application development and of designing a user interface that grants subscribers easy access to the application and simple ways to customize how each service is presented on the handset’s screen. Rolston says one of Frog’s unique selling points is that it is not a technology company. Rather, it will find the technology to suit the invention.

In the Alltel project, the invention is Celltop, and the technologies are Qualcomm’s Binary Runtime Environment for Wireless (BREW) and UiOne user-interface software. Rolston said the Qualcomm products were chosen because they allow better access to the handset than competing products do and therefore enable applications to be displayed in a more compelling way. “Portal’s failure was presenting all the information in the same way,” he says. “We need some visual context.”

Celltop was developed in 12 months and was deployed on the first Alltel device – Samsung’s u520 – in mid-January. Frog says the high level of cooperation between it, Alltel, Qualcomm and handset vendors, including Motorola, LG Electronics and Samsung, helped speed the development of the program along. Frog also called on its parent company,

Aricent, to help with development, because of the latter's expertise in software development.

The firm decided to adopt a widget-based approach after consulting with Alltel and its subscribers. Alltel's job was to design a product that would make the mobile phone a more central part of its customers' lives by making it easier to access digital content. Frog's research indicated growing demand for customization, access to personal media and online data, and access to social-networking sites. The information was used to identify opportunities for Alltel to explore, and the original list contained about 100 potential concepts.

Frog and Alltel whittled that figure down to three and set about assessing the technical requirements for each concept. Frog said it chose the widget approach because it offered the closest experience to a desktop PC and therefore offered an opportunity to make the mobile phone as central a part of the user's digital world as the PC itself. Rolston says that although many handsets offer Internet connectivity, vendors have been slow to update the user interface to enable subscribers to enjoy the full benefits of web-based services. "It's about asking what people are doing today and how the handset can help," he said.

At its simplest level, Celltop provides a series of vertically stacked screens that offer shortcuts to the subscriber's preferred content or application. The service can be used to access basic device functions, including calendar and messaging services, or for more-complex web-based services, such as stock tickers and weather forecasts. Frog says the ability to access on- and off-device content is a major evolution in handset functionality, because it removes the need for subscribers to scroll through menus or enter search terms. The product satisfies the need to create a mobile application ecosystem by allowing third-party developers to create their own cells, which users can purchase.

"Carriers have to figure out how to provide distinct value," Rolston said. "They have to contribute to the experience. If the ecosystem becomes healthier, carriers can become a key part of [that] system."

Frog is proud of the one-year turnaround on Celltop, saying Aricent's involvement was instrumental in enabling it to quickly validate ideas by eliminating the need for extensive development research. The firm's approach to Alltel's requests is somewhat at odds with the way the wireless industry usually develops new applications, because it came up with the idea before finding a suitable bearer technology. Wireless development usually begins at the birth of a new technology, with services developed around the capabilities of that technology.

Rolston says any new wireless service requires something of a leap of faith, noting that the difference between your idea and the means of making that idea work is often quite large.

The good news for handset vendors is that the three OEMs Frog worked with also helped speed up the deployment of Celltop. The trio were involved in making a work-

ing model from Frog's early designs, enabling the design firm to gain Alltel's approval for its prototype and fine-tune the design.

Celltop's unique selling point is the ability for users to customize the order, appearance and content of the cells shown on screen. The user even controls the background color of the cells. The application also stores the user's preferences and updates cells accordingly. The firm has submitted a number of patent applications covering Celltop, but Rolston admits that major OEMs might simply copy his firm's work. He says Frog might look into licensing deals as a way to protect its IP and boost deployments of Celltop to foster a mobile applications ecosystem.

The product has already achieved critical acclaim in the form of a best-in-show award in the second annual Emerging Technology awards, held at the CTIA Wireless trade show in Orlando. The program offers access to call logs, weather reports, news, stock tickers, ring tones, and baseball, basketball and football information. Rolston says the product provides a natural evolution for PC-based web services, pointing to the growing popularity of wireless e-mail programs as evidence that applications can make the leap from the desktop to the handset.

Frog draws on 38 years' experience as a creative consulting firm. Aricent's ownership of the firm means it is part of a global operation with 25 offices in 13 countries and about 7,500 employees. Rolston says Frog has been developing software since 1994 but only turned its attention to mobile products in 2002. "We do a lot of PC and web applications," he said.

It is unclear what the future holds for Frog Design in terms of its next big project. Although the firm counts major service providers from the telecoms and TV industries among its customers (see fig.), for now, it looks like the firm has its hands full touting the benefits of Celltop and keeping the preying hands of vendors at bay. Frog must shore up its patents quickly to take advantage of Celltop. In the meantime, Alltel subscribers are the only beneficiaries of Frog's work. The carrier plans to offer Celltop to each of its 11 million subscribers and has specified that all new handsets it launches must feature the technology. Not bad for a year's work.

Frog Design customers		
2Wire	HP	Sprint
Alltel	Intel	Swisscom Mobile
AMD	Logitech	Systimax Solutions
BBC	Maxtor	Telenav
Belkin	Microsoft	Tivo
Boost Mobile	Motorola	T-Mobile
Cingular	MTV	UPC
Cisco	Napster	Virgin Mobile
Comcast	Qualcomm	Vodafone
Cox Communications	Seagate	Vonage
Disney	Sky	Yahoo

Source: Frog Design