Kineto WIRELESS

Home Zone 2.0
Beyond Cheap Voice

Operators are now expanding their HomeZone 2.0 mobile services beyond the initial subscriber value proposition of reliable coverage and low-cost mobile calling at home. The full value of HZ2.0 services will be realized as operators move beyond voice.

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Introduction

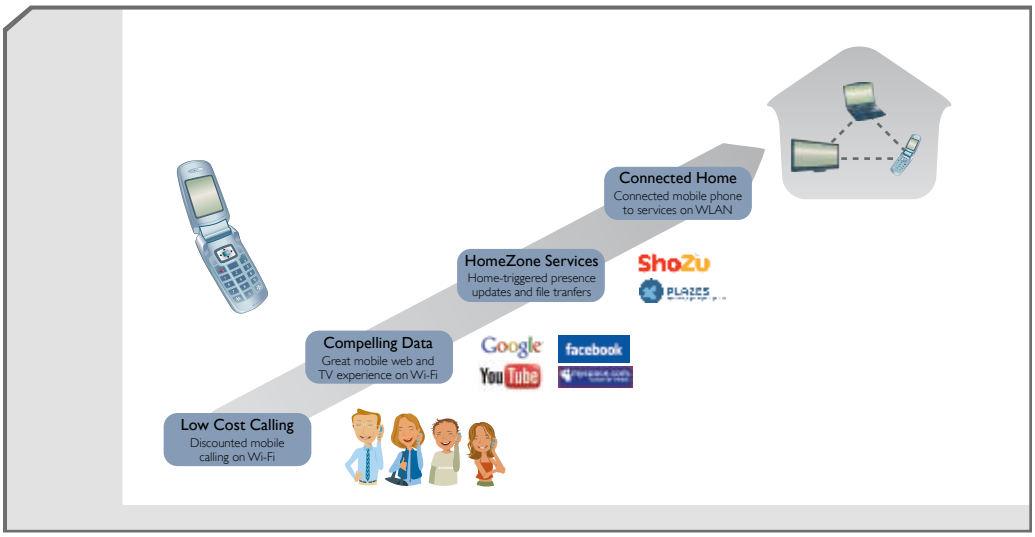
As witnessed by the commercial success of dual-mode Wi-Fi handset services from T-Mobile U.S. (Unlimited HotSpot Calling) and Orange (Unik), there is clear consumer demand for Home Zone 2.0 (HZ2.0) offers that provide reliable coverage and low-cost mobile calling from home.

In addition, operators are realizing clear value through the delivery of these initial HZ2.0 offers. T-Mobile recently stated that nearly 50% of subscribers to its Unlimited HotSpot Calling service are new to T-Mobile. This inbound churn is a boon for T-Mobile fighting for market share in a mature, competitive mobile telecom market. Orange is also reporting impressive results, including a three-times-lower churn rate from subscribers signing up for its UMA service, Unik.

Yet, HZ2.0 service offers based solely on improved coverage or low-cost mobile calling ignore the tremendous value and potential of HZ2.0 technology for both consumers and operators.

Ultimately, HZ2.0 services are the basis for mobile operators to 'own the home.' With an eye toward making the mobile handset a key element of the 'connected home,' mobile operators can take advantage of the capabilities of a HZ2.0 service to deliver high-speed, low-cost mobile data access.

Of course a key benefit of the HZ2.0 is location awareness, giving the mobile handset and operator the ability to realize the subscriber is in the home or office, enabling the handset to actually behave differently.



The full value of HZ2.0 services will be realized as operators move beyond the initial cheap voice propositions and begin leveraging the high-performance, low-cost and location awareness advantages of Wi-Fi and/or femtocell access points to drive mobile data demand and capitalize on the connected home.

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Compelling Mobile Data Experience

In addition to enabling high-quality, low-cost mobile calling at home, HZ2.0 services (whether based on dual-mode Wi-Fi handsets or femtocells) can also provide high-speed, low-cost mobile data services to subscribers.

With rising consumer interesting in mobile data services, such as mobile social networking, mobile TV and mobile maps, operators are in a position to leverage HZ2.0 services to capitalize on this growing demand by providing a compelling mobile data experience at home.

Home Zone Services

As a subscriber enters his or her Home Zone, the handset automatically connects to the local access point (whether femtocell or Wi-Fi). At this point, the mobile core network is aware the subscriber's handset is connected via a fixed broadband access network (rather than the macro RAN), as well as the subscriber's exact location (home, office or a specific hotspot). With this knowledge, mobile operators can now look to deliver a number of enhanced services.

Enriched mobile data services represent one such opportunity. Mobile operators can leverage the cost and speed advantages of the fixed broadband access network by adding new features or improving the performance of a mobile data service when a subscriber is in his or her Home Zone. For example, a mobile video or music service could add a streaming capability that is only available to the subscriber when in a Home Zone. Or the performance of a Mobile TV service could be improved by moving to true HD when in a Home Zone.

Location–notification services represent another opportunity. For example, a parent could automatically receive an SMS whenever one of their children enters or leaves their house. Or, automatic location updates could be sent to an online social network service, such as Plazes or ShoZu. For example, in the US could add a feature to its HZ2.0 Unlimited HotSpot Calling service where every time a subscriber arrived at home, an office, a Starbucks coffee shop or other hotspot location, the subscribers' location information could automatically update their location on social networking sites.

Fixed-mobile convergence (FMC) services represent yet another opportunity. For example, a mobile operator that also offers fixed telephone services could enable calls coming to a subscriber's mobile phone to simultaneously ring on their fixed line whenever they are in their Home Zone, providing the convenience of using any home phone rather than only the mobile.

Connected Home Services

For the mobile operator to truly own the home, they need to deliver a big-picture HZ2.0 vision to subscribers; more than just improved coverage and local data offload. As more devices (TVs, DVRs, cameras, game consoles, speakers, …) become part of a connected network in the home, there is an opportunity to make the mobile handset the central device for managing and maintaining a "connected home."

Mobile handsets already provide the core communication features of voice and SMS. With new devices like the iPhone, the handset becomes the primary mode of email access, basic web browsing and social networking, even adding location-specific applications like a Tivo remote, or automatic synchronization with in-home media servers (music, photos, videos).

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Clearly Apple has this vision: the Apple AirPort Wi-Fi router links Apple's computers and laptops, which in turn accesses the online media/music/video center iTunes, synchronized with the new iTV server, as well as the Wi-Fi-enabled iTouch. The vision consolidates around the iPhone, the new central device for bringing the connected home together.

Beyond Apple's vertical approach, organizations like the Digital Network Living Alliance (www.dlna.org) have developed a protocol for bringing devices into this connected home network. In an HZ2.0 application, the handset can become part of the network through a native Wi-Fi connection and DLNA application running on the phone, or via proxy through a DNLA-enabled femtocell. In fact, Nokia and Samsung both recently announced their first DLNA-supported, dual-mode Wi-Fi handsets.

For some mobile operators, the vision is on its way to reality. In February 2008, Orange announced an initiative called "Soft At Home" (www.softathome.com). This joint venture with Sagem and Thomson has the stated goal to "facilitate the deployment and interoperability of digital equipment in the home."

Internet Offload

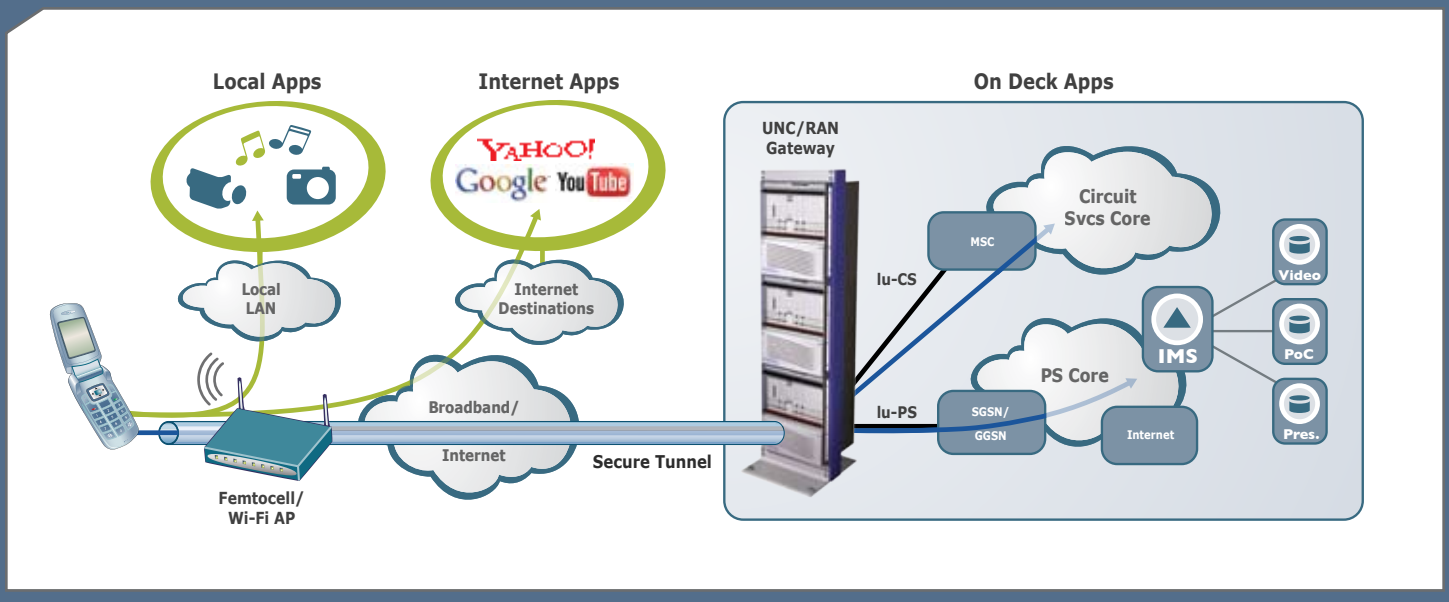
As consumers embrace mobile data access, portal sites such at YouTube and MySpace are proving to be popular destinations. But for operators, access to these sites from within the Home Zone does not offer a significant revenue opportunity. In addition, data-intensive traffic has the ability to choke mobile network resources. Therefore, it is desirable to offload internet-bound traffic within the home zone directly to the IP network.

HZ2.0 services based on Wi-Fi or femtocells inherently support a local data offload capability.

This is the way dual-mode handsets without UMA function. When in Wi-Fi, phones like the iPhone access internet content directly over IP, while mobile services like voice, SMS and other on-deck applications are accessed over the cellar network. However, new UMA-enabled handsets from RIM support internet offload concurrently with UMA.

When in Wi-Fi, mobile services like voice and SMS are delivered through the UMA tunnel, while internet applications like Google or YouTube are routed directly over Wi-Fi.

Within a femtocell-based HZ2.0 deployment, femto APs typically support a local data-offload feature. Traffic from the device is passed into the femtocell, which then can route the request based on IP address or APN to the mobile core network or directly to the public internet.



Conclusion

Initial Home Zone 2.0 services offer mobile operators compelling benefits related to improving coverage and offering low-cost mobile calling. These benefits are being realized today by innovative operators such as Orange and T-Mobile US, among others. Yet the vision for HZ2.0 is to develop a long–term connected home strategy, which cements the mobile operator as the service provider of choice for in-building communications and puts the mobile phone squarely at the center of the next generation in-home network.

For operators without a HZ2.0 capability, it is nearly impossible to offer similar types of services. The macro network alone does not support the fundamental requirements of an HZ2.0 service: a radio-based 'service zone' to differentiate services from the macro network, the use of broadband to offload data intensive services from the macro network, and improved coverage/performance delivered from an in-building radio (femtocell or Wi-Fi).

By combining location awareness with local data offload, HZ2.0 offers a strategic advantage for mobile operators. In short, HZ2.0 lets mobile operators 'own the home.'

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