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## Seeker Wireless enhances 'home zone' mobile technology

by **Stuart Corner**

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For years mobile operators have dabbled with "home zone" technologies that enable them to apply a reduced tariff when a mobile is operating in its home zone, and thus compete with fixed line offerings. These have had limitations but Australian company Seeker Wireless reckons it has the problem licked with the latest release of its SeekerZone technology.

The biggest challenge for home zone systems is to be able to accurately and reliably define a sufficiently small zone so that users do not enjoy the reduced home zone tariff over a wide area, cannibalising operators' mobile revenue stream.

According to Seeker Wireless' CTO, Dr Malcolm Macnaughtan, "In the past, many operators have not been able to deploy quality Home Zone services, because the first generation of Home Zone systems were plagued by large zone sizes and unreliable billing, resulting in a high level of customer complaints."

A decade ago in Australia Hutchison Telecom, then branded Orange, launched its CDMA network with the home zone as its central feature, but was forced to quietly discontinue this and offer a standard mobile service because of problems with zone definition. Since then Vodafone has rolled out a Home Zone service in a number of markets, [including New Zealand using Seeker Wireless technology](#).

With the latest release, the 'General Availability' of SeekerZone, Seeker Wireless claims to have greatly increased the accuracy with which zones can be defined, and to have developed a version that requires no special functionality on the handset, relying solely on a central server.

The SeekerZone General Availability release is claimed to enable 35 percent smaller zone sizes than earlier releases, and a unique feature enabling average reliability and zone size to be adjusted in steps as small as one percent. "Operators can now launch successful Home Zone services without the previous headaches of large revenue cannibalisation, subscriber complaints, and costly investments in network planning tools," Seeker Wireless says.

The SeekerZone technology uses a small applet on the SIM card that monitors signal strength from nearby base stations and uses this to calculate the position of the handset.

However, according to Seeker Wireless, "a server-only version can be launched without the need to deploy applets on SIM cards, enabling rapid deployment with 100 percent handset reach...The zone size for the server-only version is now more than 50 percent smaller than first-generation Cell-ID systems, yielding a commensurate reduction in cannibalisation."

An adjustable operating point allows the operator to adjust the reliability and zone size in fine increments to a level that suits their service requirements and Seeker Wireless says it has incorporated software enhancements that mean SeekerZone can be deployed with an even lower cost for hardware and third-party software than earlier releases.

For services requiring the ability to manage terminating calls and SMS by location - for example offering a fixed line number that enables callers to call the mobile at fixed network rates when it is in the home zone - Seeker Wireless offers a Sim Toolkit applet. "The applet in this release has been optimised to achieve a footprint as small as 6kB, enabling the option of over the air) deployment to existing SIM cards," it says.

All of this raises the interesting possibility of VHA, which unlike Telstra and Optus has not fixed line customers, ramping up competition by launching home zone services in Australia. There is certainly strong precedent for this: despite its early bad experiences Hutchison tried again [relaunching home zone type services on its CDMA network in 2005](#) - just weeks before Telstra announced plans to close its CDMA network on which Hutchison relied for coverage outside major metropolitan areas. This left Hutchison with little choice but [to shut down its CDMA network](#).