



Can Personal Cellular Sites boost cell service?

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Mobile operators are on the verge of asking you to help them solve one of their biggest problems – **how to get more signal strength where you need or want it most.** Their plan? Allow end users to buy personal devices that act like Wi-Fi routers, providing nearby cellular bandwidth in hard-to-reach places like offices and homes.

These next type of cell sites, named *femto* cellular (femto being smaller than *pico*, the term used by mobile operators that refers to smaller cell sites) are setting out to solve carriers' often-expensive problem of providing complete coverage. Mobile phones usually work well in metropolitan areas, but travel a few miles off the Interstate or into the country and signal bars drop rapidly. Most frustrating to many people is that the signal strength at their homes or inside offices is often unusable.

The forthcoming femto solution?

Having end-users buy a small femto device, similar in concept to a Wi-Fi access point, that is a personal cellular site.

The femto cellular device has a cellular antenna to boost the available signal as well as an Internet connection. The device uses your Internet connection to connect to your mobile provider's network and route your phone calls.

There are a few limitations, or benefits, to this approach, depending how you see it. First of all, the femto device you buy will probably only connect to a single mobile provider's network. That's good if you like your mobile operator and bad if you want to switch operators on a regular basis.

This approach is clearly good for the mobile operator because you buy a device that uses your Internet connection to extend their network and gives you less incentive to switch providers.

Since femto cellular devices are not available yet, there are some unknown issues – will mobile operators charge the same for minutes via femto cellular devices? Will enterprises buy femto cellular devices like Wi-Fi access points to extend cellular coverage?

How do you stop your neighbors from using your femto cellular device and the associated broadband bandwidth (or do you care)?

And how much are you willing to pay for a device that lets you use mobile phones in your house?