

Channel-Hopping on Mobile Phones

October 24 2005



A new technology for mobile communication networks allows cell phone users to watch TV as they would at home. The Mobile TV Streaming system from Siemens makes it possible to change channels instantly. Other streaming solutions can take up to 15 seconds for this. In addition there are no long downloading times, since the data reaches the phone virtually in realtime.

As such, the system could theoretically be used for live transmissions of

sporting events. Mobile providers who use the system can offer their customers the possibility of receiving television programming from any location via the existing GPRS and UMTS/W-CDMA networks. Vodafone is already using the technology in several countries.

The better performance of the solution from Siemens Communications is made possible by the fact that the connection between the phone and streaming server is maintained even when channels are being changed. The actual switching of channels takes place on the network server, which means the user immediately receives the new picture. Other solutions involve severing the connection, in which case the mobile terminal must reestablish contact with the server. That's why it takes several seconds for such systems to change channels.

Along with on-air television programs, mobile communication providers can also make available video-on-demand selections for customers. The signals received by the phone are digitized in such a way as to optimally align them with the terminal and ensure that the ensuing image is adapted to the relatively small screen. Terminals that use the UMTS standard provide good-quality images at a transfer rate of 128 kilobits per second. The technology also works in GPRS networks at bandwidths of approximately 40 kbit/s.

Siemens is also moving ahead with the DVB-H (digital video broadcasting handheld) technology, which is an encoding for the digital DVB-T signals now available in several metropolitan areas in Europe for television programming. DVB-H technology was developed especially for use with mobile devices. In a field trial in the Czech Republic, Siemens was the only company able to set up a functional system in which the network infrastructure fit perfectly with the terminals used.

Citation: Channel-Hopping on Mobile Phones (2005, October 24) retrieved 25 April 2024 from <https://phys.org/news/2005-10-channel-hopping-mobile.html>

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