

Communications consultant and IEEE fellow Stu Lipoff speaks with us about the rise of network-based home health care devices, as part of a talk on the growth in home networking.

Recently pushing the growth in broadband connectivity is the increasing demand for multiple video streams to be moved around the home-- from multiple connected HDTVs to the recording of HD streams on DVRs, smartphones and tablet devices. One has to keep in mind each HD stream requires around 20 Mbps of data, which can easily bring data demands to the 100s of megabits.

Lipoff says the wifi is the technology filling such data needs, currently managing to reach data ranges of around 300 Mbps. The IEEE is working on the next generation 802.11ac standard, promising data rates of over 600 Mbps.

"Once you have ubiquitous connectivity around the home, then you have the ability to network a variety of different devices," Lipoff says. An example is medical and health monitoring equipment, connected to either a central home server or directly to a family doctor.

Technology has made previously hospital-only devices affordable for the home, while non-electronic devices (such as pneumatic blood pressure gauges) are now digital and internet-capable. CES 2012 hosted many different models of such devices

Lipoff says annual global consumer electronic medical device shipments are set to reach around 216m-- with 80m electronic thermometers, followed by diabetes management devices, electronic weighing scales and blood pressure gauges.

## From the Hospital to the Networked Home

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Smartphones are also acting as inexpensive processing devices thanks to addition of peripheral devices.

We are still at the early days of networked medical devices, Lipoff concludes-- but manufacturers will surely advance such devices much further, particularly as networking technology continues growing further and further.

Stu Lipoff is a consultant with a practice in the communications, information technology, and electronics industries, providing clients with management consulting and technology consulting professional services in the convergence industries including telecommunications, media, and manufacturing.