



Stanford eCorner

Connecting Embedded Devices Cycle

Judy Estrin, *JLABS, LLC*

May 14, 2003

Video URL: <http://ecorner.stanford.edu/videos/423/Connecting-Embedded-Devices-Cycle>

Estrin talks about how the last cycle is about connecting embedded devices, as opposed to connecting computers. The real win in this is when we can build a completely new architecture for networks that are self-configuring, she says. Interesting work in academia is targeting this area. She talks about technology enablers in this cycle and the focus on low power, and not performance.



Transcript

The last cycle is the connecting devices. And this is different from the Enterprise Productivity, which is really about connecting computers. Here I'm talking about connecting embedded devices and connecting embedded devices everywhere. People are talking about RFIDs already today and they're in use in lots and lots of places. But in general, the first phase of this will just look like the little tag that can send back to a central location that can tell you what's on the shelf at Wal-Mart or you know, how many Pepsi's have been taken out of the vending machines. The real win here though is when we look at some new completely new architectures for networks that are self-configuring and you can go into an oil field and drop down the sensor and it fills that or strap down sensors and they build the network themselves. That's a completely different communications architecture from what we see today. And there's a lot of really interesting things going on in academia in this area that I believe in 5 to 10 years will start coming out and hitting the marketplace. Some of the technology enablers here, which I think is going to be hard for the industry is of different kind of mindset on how build semi-conductors. Cause we have been so focused on performance.

Performance, performance. This is about low power. This is not about performance and that's a very different mindset in terms of how you build things. And that's going to be one of the hard aspects of this shift as is the new communications architecture.