

Towards A Real-Time Unified Pervasive Platform

Over the past few weeks we have seen a number of announcements concerning various platforms for device and human interaction via the Internet. Two announcements of note are the introduction of Google Wave and Axeda's SmartLink Platform. Both are aimed at evolving toward a unified platform for real-time device and human interactions. However, as we have seen for so long, the world of human interactions on the Web and the world of M2M are really parallel paths—not necessarily on a path of convergence.

The problem is, if you say “device networking” to those outside the intelligent device networking community, you'll pretty much get a blank stare. And if you go on to say, “Well, we want to network all your meters, cars, HVAC systems so they can communicate and collaborate too,” the response is likely to be, “I think I understand, but why would you want to do that?”

Device networking does not automatically fire the imaginations of every day people in the same way a new smart phone app might. It does not provoke a image of unified communications that crosses the technical and cultural boundaries between humans and machines. It is a wonder to us why this technical and cultural divide persists. If only these two worlds really understood they are on the same path but originated in entirely different worlds how much further along we might be.

Last month, Google announced their latest product breakthrough, Google Wave, a new real-time, open source communi-

cation platform. Google Wave combines e-mail, instant messaging, wikis, social networking, web chat, project management and more into a single online client. Wave allows developers to build their apps for real time interaction between multiple sources of input—be they people or properly outfitted devices (even though the only device recognizable to this developer crowd is an Android).

Wave is a completely new type of collaboration platform that seeks to optimize interactions over the Internet.. Wave is ushering in an era of truly pervasive communications where specialized devices can utilize services from the global network of networks. If a success, Google will transform the way we connect and communicate and prove once again that taking risks for the sake of innovation leads to great rewards.

Here at Harbor, we cannot help but wonder if a real-time unified platform can exist for the “Internet of Things” and the “Internet of People”... a platform that would integrate devices, people and provide both with communications and collaboration capabilities – a Pervasive Internet of Interactions? If so, what would such a thing look like?

- First of all, a unified platform must be communications agnostic. The number and diversity of devices that are being connected to the Internet are growing, and will continue to grow for the rest of time. Platforms need to be able to integrate virtually any device into their system.
- Second, a unified platform would need

to be open and interoperable. We see time and time again that interoperability is the single most important step in creating rapid adoption of technologies

- Third, it will need to be scalable.
- Fourth, infrastructure will become remote and eventually free. We've now entered a world where "cloud computing" is a reality, and has many advantages. Renting out infrastructure will become the norm and companies will need to innovate around a comprehensive infrastructure.

We realize this is a lot to ask for, but we believe we are beginning to see a range of options being added by traditional M2M players to their platforms that are intended to create a world where devices and people are communicating in real time on a much more tightly integrated basis.

It's not just around the corner but we are getting closer.

Earlier this month, Axeda announced their new SmartLink Platform that is heading toward the same end-state of a unified M2M communication and application platform. The SmartLink Platform provides a communications and hardware neutral solution enabling enterprises to connect, manage, service, and track wired and wireless assets anywhere. Axeda is also aggressively expanding its alliances program working with a broader group of system integrators, ISVs, manufacturers and developers to strengthen their capabilities to quickly build and deploy smart solutions.

This announcement is a significant expansion of scope for the company. Axeda, like other players in the M2M space, is discovering what a truly pervasive unified communications experience might entail – they are seeing a much bigger world out there full of interactions and opportunities.

We believe that M2M has now surpassed its initial market inhibitors, namely the cost and complexity of connectivity. We've now reached a point where just about any elec-

tronic device can connect to the Internet at a relatively cheap price. But we're still some distance away from the reality of what Google and Axeda are pointing at—true "plug and play" integration; where an application will be able to recognize a device and understand it as soon as it is connected.

What these two worlds need to understand is this phenomena is not just about people communicating with people or machines communicating with machines: it also includes people communicating with machines, and machines communicating with people. The Internet's most profound potential lies in the integration of smart machines and people—its ability to enable pervasive interactions.

What do we need to do? We need to more deliberately drive the convergence of these two worlds (if you would like to read more about the Pervasive Internet of Interactions please visit our website, or download our latest paper entitled "Shared Destinies").