

Nokia showcases indoor 3-D mapping phone solution (w/ video)

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(PhysOrg.com) -- Nokia is showing off a prototype that location enthusiasts consider the next step in indoor mapping. Nokia has built a Location Extension Protocol on top of the Bluetooth 4.0 specification, which enables a phone user to see what Nokia says are highly accurate 3-D maps of indoor environments. While that kind of function may seem pointless when moving around in a small apartment, it is far more important for what Nokia has in mind.

This will be a <u>navigation</u> aid through the caverns of conference halls, airports, and large <u>shopping malls</u>. Retail analytics is another area that might make use of the indoor <u>mapping system</u>. Nokia's prototype involves Bluetooth 4.0 on the phone or on a tag, along with locator equipment installed in ceilings to create 3D maps that are said to be accurate up to 21cm.



Nokia on Tuesday gathered an audience of 30, both chip makers and service providers, at its Sunnyvale, California, site to demo the prototype. Nokia put a Bluetooth tag on a Parrot Drone. (Parrot is the company known for wireless Bluetooth devices. Its Drone is a helicopter device that connects to phones in a way that users can pilot the device using onscreen controls.) The room had Bluetooth Low Energy antenna arrays mounted on the ceiling to triangulate the drone's location realtime.

"We want to take what's been done in navigation outdoors and bring it inside," said Nokia's Fabio Belloni, principal researcher at the Nokia Research Center. The Bluetooth tags on the device were controlled by a Nokia N9 smartphone, in a room with four sensors that were mounted on the ceiling.

Another screen showed the helicopter being tracked in realtime on all three axes. While the Tuesday demo was for gaming purposes, the possibilities for use of an indoor 3-D mapping system are far-ranging. An attractive and obvious phone-service feature would be in navigating one's way through exhibit halls or any other large buildings where mapping support can help users locate what they need to locate easily.

The Nokia technology is a concept for now but Nokia plans to take the technology further. <u>Nokia</u> has plans to get this technology standardized with the Bluetooth SIG so that it can be put into consumer products by 2013. The Bluetooth Special Interest Group is the body that oversees the development of Bluetooth standards and technology licensing to manufacturers.

More information: via <u>Intomobile</u>



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