Broadcom Adds Bluetooth 3.0, Wi-Fi Direct to Android

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By Stephen Lawson
Tue, February 09, 2010 — IDG News Service — Broadcom increased its bet on the Android mobile operating system on Tuesday, announcing additional capabilities for its software stack and a new chip for navigation in Android-based devices.

The company added support for Bluetooth 3.0 and for the Wi-Fi Direct specification to its software stacks for Android devices. By using some Wi-Fi technology, Bluetooth 3.0 increases the maximum throughput of the personal-area networking standard to more than 20M bps (bits per second) from roughly 2.1M bps. Wi-Fi Direct allows wireless LAN client devices, such as smartphones and PCs, to communicate directly without going through an access point.

Analysts expect Android, the open-source mobile operating system introduced by Google in 2008, to take a growing share of the mobile device market. IDC said last month it expected Android to be the fastest-growing mobile OS over the next five years, becoming the second-most-popular platform behind Symbian by 2012. The OS is also making its way into other devices, including netbooks and PNDs (personal navigation devices).

Though it declined to talk about specific customers, Broadcom said its communications chips are used in a majority of the Android devices on the market. Its Bluetooth and Wi-Fi transceivers have been reported found in the Google Nexus One handset.

Broadcom will demonstrate these and a variety of other enhancements next week at the Mobile World Congress in Barcelona. It will also show off the BCM4751, a new GPS (Global Positioning System) chip in which the company has integrated several formerly external components to reduce the cost, size and power consumption of the GPS system in a phone or PND.

In addition to Bluetooth 3.0 and Wi-Fi Direct, Broadcom's software stack for Android includes support for "soft access point" capability, which allows a Wi-Fi client device to act as an access point and share connectivity with other devices nearby, and for the WAPI (Wireless LAN Authentication and Privacy Infrastructure) security protocol used in China.

Android comes with a Bluetooth software stack, called BlueZ, but Broadcom's software goes beyond BlueZ's features to include additional profiles that define other uses of Bluetooth.

Mobile World Congress will mark the first time Broadcom has publicly demonstrated its support for Wi-Fi, Bluetooth and VoIP (voice over Internet Protocol) on Android, the company said. Also at the trade show, Broadcom will demonstrate Android support in multiple chips in a tablet that uses Broadcom VoIP, multimedia, GPS, and Bluetooth and Wi-Fi chips.

The enhanced Android software stack is available to developers immediately and is likely to show up in shipping products this quarter, said Craig