Wi-Fi Direct allows P2P connections without Wi-Fi hot spots (w/ Video)

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(PhysOrg.com) -- The Wi-Fi Alliance has begun certifying laptop components incorporating the new Wi-Fi Direct technology, which provides peer-to-peer (P2P) Wi-Fi connections between devices such as cameras and smart phones without the need for a Wi-Fi access point or Wi-Fi network.

Chief Executive Officer of the Wi-Fi Alliance, Edgar Figueroa, said the new technology was groundbreaking and would, for example, allow a salesperson making a sales presentation by using a smart phone or laptop

to send slides or video to a projector without the need for wiring. Another example is a camera taking pictures on the upper deck of a cruise ship, which could instantly upload picture data to a laptop on the deck below. The technology would also allow people to play a game in real time on separate hand held devices, even in places with no Wi-Fi hotspot, such as on a train, Figueroa said.

Data is transferred at up to 250 Mbit/sec over a range of about 180 meters without the need for a Wi-Fi access point. In a pair of devices only one of them needs to have Wi-Fi Direct installed. P2P communication would be initiated by entering a personal identification number or pressing a button on the Wi-Fi Direct enabled device, and then the second device would present a screen requesting permission to connect to the first. The technology also includes power-saving features aimed at extending battery life.

Like other P2P networks, the security may be a concern for some, but Figueroa said the technology includes WPA2 authentication and encryption, that "security is baked into every connection," and security protection is automatic and does not need to be set up manually. The certification specification also focuses on corporate security. It allows companies to designate parts of the corporate wireless LAN to allow Wi-Fi Direct communication, or to block its use entirely.

The Wi-Fi Alliance has already certified five products (mostly laptop components) as Wi-Fi Direct ready. The products include an Intel Centrino internal PCI half mini card, Broadcom and Ralink PCI half mini cards, and Realtek and Atheros PCI mini cards. Wi-Fi Direct technology is expected to appear in the near future in many portable devices such as smart phones, MP3 players and cameras, and in devices such as television sets.

The Wi-Fi Alliance is a global non-profit trade association of over 350

companies. The Wi-Fi Certified program began in March 2000 to help ensure the quality and interoperability of Wi-Fi devices.

More information: www.wi-fi.org/Wi-Fi_Direct.php

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