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'WWiSE' Consortium, Motorola Team On Proposal For IEEE 802.11n

Dallas -- The World Wide Spectrum Efficiency (WWiSE) consortium, a group of 12 companies which developed a complete proposal for the IEEE 802.11 Task Group N (TGn), today announced a merger of technical proposals with Motorola, Inc. Motorola had previously developed a separate proposal but will now work as part of the WWiSE consortium on an enhanced proposal that will be submitted to the IEEE 802.11 TGn for consideration. TGn is chartered with developing a next-generation Wi-Fi standard capable of sustaining data throughput in excess of 100 Mbps. The other members of the WWiSE consortium are Airgo Networks, Broadcom Corporation, Buffalo, Conexant Systems, ETRI, Hughes Network Systems, Ralink Technology, Realtek, STMicroelectronics, Texas Instruments, TrellisWare Technologies, and Winbond Electronics.

"Motorola believes the IEEE 802.11n standard is an important building block for offering connectivity to high bandwidth services in the home and enterprise environment," said Miguel Pellon, VP technology-standards, Motorola. "We believe our experience in making applications such as mobile VoIP and mobile multimedia streaming operate in handheld devices and our expertise in power saving mechanisms strengthen the WWiSE proposal for 802.11n."

The updated WWiSE proposal will continue to build on the existing and globally adopted 20MHz channel format of the tens of millions of Wi-Fi devices already in use. This approach ensures support for the existing worldwide installed base, while improving the performance of Wi-Fi networks within the designated RF spectrum. Motorola's contributions to the revised WWiSE proposal will enhance the pre-existing specification by improving range, reach, and robustness for the various operating modes.

Key features of the combined WWiSE proposal include:

1. Mandatory use of the approved, pre-existing, worldwide 20 MHz Wi-Fi channel width, assuring immediate applicability and deployment in all regulatory jurisdictions.
2. Enhanced MIMO technology that enables a maximum data rate of 135 Mbps in the minimum mandatory 2 x 2 configuration and a single 20 MHz channel to keep implementation costs low, while greatly improving upon simple antenna additions or channel bonding schemes.
3. Mandatory modes affording backwards compatibility and interoperability with existing Wi-Fi devices in the 5 GHz and 2.4 GHz bands to ensure strong support of legacy deployments.
4. Enhancements that improve robustness and range for all modes of operations and data rates.
5. Modes of operation specifically intended for mobile, battery-powered applications and devices such as handsets and cell phones.
6. Advanced forward-error-correction coding option to facilitate maximum coverage and range, applicable in all MIMO configurations and channel bandwidths.
7. Rates up to 540 Mbps, accomplished with a 4 x 4 MIMO structure and optional 40 MHz channel width (where permissible by regulatory bodies), provide a clear and extensible roadmap for future devices and applications.
8. Provisions for advanced features that improve data rate and range such as beam-forming and closed loop methods.

"Motorola's joining with WWiSE is a strong endorsement of the fundamental technical direction adopted by WWiSE to improve spectral efficiency and improve range and robustness. Their contributions enrich the proposal in a manner consistent with these objectives," said Jim Zyren, WWiSE spokesperson and director of marketing, wireless networking business unit, Conexant Systems. "The updated WWiSE proposal is now in a state that can be quickly adopted as the baseline draft standard for 802.11n."

The WWiSE proposal is one of two remaining proposals set to be considered by IEEE 802.11 Task Group N at its next meeting during the week of March 14 in Atlanta. At this session, one proposal could be selected as the baseline for the new standard. With momentum growing for the WWiSE proposal, more companies are soon expected to join the effort and help support its acceptance at upcoming meetings.

WWiSE has recently updated its Intellectual Property offer for essential patents embodied in the WWiSE proposal. It remains fully consistent with IEEE requirements known as RAND (Reasonable and Non-Discriminatory). WWiSE companies will offer their essential IP under RAND terms, the basic requirement for anyone wishing to participate in IEEE standards setting processes. Likewise, any company may join and support WWiSE so long as they adhere to the IEEE IP rights policies and procedures. Further information about WWiSE and the updated WWiSE proposal to IEEE 802.11 TGn may be found at www.wwise.org.

Source: Texas Instruments

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