Marvell says 802.11ac 4x4 solution is an industry-first

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(Phys.org)—Marvell Technology Group has announced Avastar 88W8864, a wireless local area network system-on-chip. The company says the 88W8864 sets new industry benchmarks for speed and range. The new entry is the industry's first "802.11ac 4x4 solution," for access points and wireless video distribution. With the release of the Marvell 802.11ac 4x4 chip, the company message is that here is a solution that offers a significant increase in Wi-Fi bandwidth capacity and reliability.

The 88W8864 is Marvell's attempt to excel in enabling seamless wireless throughput of high bandwidth data applications and to enable reliable HD multi-stream video distribution over Wi-Fi networks. The 802.11ac connectivity is to enhance consumers' "immersive digital entertainment" experiences. The end result is expected to be high-quality video content across service provider gateways and set-top boxes. The 88W8864 will

be integrated into Marvell's media platforms.

"I believe that with Marvell's new breakthrough 802.11ac 4x4 Wi-Fi solution, we are positioned to change the landscape for enterprise-class network infrastructure and carrier grade video applications, further empowering the entire spectrum of always-on devices, " according to the company release quoting Marvell's co-founder, Weili Dai.

Dai further noted that this is a new era of digital lifestyles that require superior wireless connectivity, critical for live content across all screen sizes and "Smart Furnishings."

Marvell said it is currently sampling the new chip to Wi-Fi equipment manufacturers.

The key features of the Avastar 88W8864 SoC are its 802.11ac and beamforming capabilities. First, the 802.11ac standard is said to significantly increase bandwidth available over the Wi-Fi link and network capacity for densely populated environments. Wireless capabilities are extended to new use cases such as real-time video streaming and wireless backup. With the new chip having built-in 802.11ac support, the 88W8864 delivers up to 1.3 Gbps of throughput. Marvell says in turn it is well suited for enterprise APs and the transfer of carrier-grade wireless.

Marvell is offering support for both implicit and explicit beamforming. Beamforming is a method of radio-frequency transmission that can be integrated across devices including laptops and smartphones. Beamforming improves link robustness and wireless performance. HD video streaming is seamless in locations where devices could previously maintain only minimal connection to the network, which improves the performance of existing devices in the network even if they themselves do not implement beamforming.

Marvell says its beamforming technology outperforms other digital signal processing techniques for range extension by at least six times. Another advantage of the new entry's beamforming is increased battery life of any device that is connected to the 88W8864.

More information: www.marvell.com/company/news/p … il.do?releaseID=3196