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AVANTA[™] Applications Gateway

New optical broadband SoC drives more bandwidth and online consumer applications

Imagine a world in which broadband speeds are delivered 20 times faster. Streaming high performance multimedia or playing sophisticated online games without lag would become the norm. Residents living together could all experience the same lightning fast broadband connections simultaneously, regardless of whether their roommates were also online.

Physicians could conduct live online consultations, view 3D sonograms or collect real-time data from connected monitoring devices to make more informed decisions. Working with students in a virtual environment would offer teachers the same opportunities as that of a traditional classroom, as the quality of eLearning tools would reach new heights.

This is the world Marvell is enabling with the introduction of the AVANTA Application Gateway SoC, an applications platform that enables service providers the opportunity to create the next generation "pipe" into the home with new applications, online services and on-demand content. AVANTA makes the dream of ultra high-speed broadband a reality for consumers, professionals and service providers, helping entertainment, productivity and communications advance by leaps and bounds. With the new AVANTA Application Gateway, Marvell invites the industry to join together in quickly establishing the ecosystem for a better connected world.

AVANTA Application Gateway Highlights

- 20 Times the Bandwidth: AVANTA solutions offer up to 20 times the bandwidth of traditional copper-based networking solutions.
- Addresses both standards of the passive optical networks: the ITU GPON standard mostly adopted in the United States and the European Union, as well as the IEEE EPON standard mostly adopted in major Asia-pacific countries including China.
- High levels of integration: Feature-packed with IPs to provide efficiency and performance
- AVANTA is the first to introduce multiple low-power techniques in the PON space: ranging from dynamic CPU speed throttling, sleep mode, low-power DDR3-SDRAM and IEEE Energy-Efficient-Ethernet (EEE) draft-compliance.
- Cellular-like Power Management: Seamless and aggressive power saving mode reduces carbon footprint.
- Integrated Voice Processor: Connects traditional Phones to PON SFU Enables operators to converged Video, Data and Voice networks into a single IP infrastructure.
- Platform Benefits Service Providers: AVANTA can improve cost structure with aggressive vertical SoC integration and with a powerful processor, service providers can create and deliver new value-add services and applications to consumers.

TECHNICAL SPECIFICATIONS

- 2 Ghz CPU Processor
- Optional wireless LAN solution to add Wi-Fi
- Line-rate IPv6-capable programmable packet processor
- Voice-over-IP
- Ethernet Switch
- Ethernet PHYs
- Universal PON MAC: GPON, EPON and China-EPON