WiVu® Technology

Product Brief

WiVu Technology Overview

Based on Cavium's high performance PureVu® video processor family, WiVu is Cavium's standards-based end-to-end solution for interactive, multi-room wireless display and home video distribution applications.

Key components of Cavium's WiVu solution

Standards-focused
- WiVu is based on widely deployed technologies, such as ITU H.264 video compression, IEEE 802.11 Wi-Fi transmission, HDCP 2.0 content protection, and standard IP protocols for transport.
- Cavium is also fully committed to the industry's standardization efforts addressing Wi-Fi based wireless display applications, and expects to be fully compliant once such standards are ratified.

High Performance
- Leveraging Cavium's PureVu® 2D and 3D video processor technology, WiVu® offers pristine 1080p HD video quality
- Cavium's PureVu® video processors are designed to provide the highest video transmission quality for all types of content, including movies, text and graphics

Interactive
- PureVu's patented Super Low Latency (SLL™) technology enables the lowest compression latency in the industry allowing WiVu® to address a wide range of fully interactive applications including remote desktop and gaming.
    - 5ms end-to-end latency over Ethernet
    - 20 ms end-to-end latency over Wi-Fi
- Support for back-channel control and command transmission over Wi-Fi is another key attribute of the WiVu® solution, providing support for:
    - IR remote signals
    - Keyboard/mouse (HID)
    - Touch-panel control
    - Gaming controllers
  commands to be transmitted back to the source in a robust and real-time fashion to enable highly interactive applications.

Multi-room
- WiVu also incorporates key IP for video Quality of Service (QoS) called SMART (Secure Minimum-latency Adaptation and Retransmission Technology) for robust multi-room wireless video.
- SMART incorporates an advanced rate adaptation and retransmission scheme that uses information from the Wi-Fi channel, as well as feedback from the receiver, to optimize the behavior of the transmitter for the varying conditions of the Wi-Fi channel.
- With SMART, Cavium technology enables 1080p wireless video at the edge of the home.