Hybrid Networking Key to Enabling the Digital Home

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With ever increasing demand for high-definition content consumption and distribution within the home, the consumer needs a highly reliable home network. At the same time, consumers are becoming increasingly aware of ways to monitor energy and reduce their spending. Fortunately, both these revolutions, although unique in their requirements, can be satisfied with a combination of wired and wireless technologies in the home.

The first revolution is digital, and it is driving whole home connectivity of digital entertainment devices. The network must not only be reliable, but also high-performance to support multiple HD video streams within the home. Consumers want seamless connectivity within the home and are fed up by various technologies that don’t provide the reach and desired connectivity in the locations they want. Enter hybrid networking: with advancements in wireless (IEEE 802.11n) and wired technology (HPAV/IEEE1901), content can be shared dynamically across an array of connected devices in every location a consumer would want. Mobile devices such as smart phones and tablets can take advantage of wireless while fixed devices such as TVs, set-top boxes and gaming platforms can take advantage of powerline networking within the home. Whether it is over-the-top (OTT) video content (using YouTube, Netflix or Hulu for example), or on-demand content (using IPTV or video-on-demand), hybrid networking delivers it seamlessly throughout the home.

Not to be left behind, the desire for more control over power consumption and device operation is driving the second revolution in the home: smart energy, smart grid, and the Internet of Things. Enabling these applications requires low-resource wireless and wired networking technologies to bring unprecedented control to consumers. An IP-based infrastructure, utilizing standards-based connectivity technologies as a base for broad interoperability, is critical for this second revolution.

HomePlug Green PHY wired and minimal resource, low-power wireless solutions support connectivity of a variety of devices in the home, including home automation controls for appliance usage, heating and cooling; electricity usage monitoring and management and connectivity to the smart grid; electrical vehicle charging; remote health and wellness management; and so on.

With fully interoperable technologies now available in the market, consumers can participate in the two revolutions to have truly digital, fully connected (and controllable) homes.

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