Agenda

- ◆ Introduction
  - — Push for Home Networking
    - – Applications
  - — Market Acceptance & Penetration
  - — Market Direction

- ◆ Technology
  - — Powerlines Facts & App.
  - — Control Network
  - — Power Line Technologies
    - – Intellon CEBus
      - – CEBus & OSI Model
      - – Spread Spectrum Technology

  - – Echelon LONWork
    - – LONTalk Protocol
    - – Architecture
  - – Carrier Sense Multiple Access/Collision Detection
  - – X 10
  - – Plug in
  - – Adaptive Networks
    - – hybrid token passing media access scheme

- ◆ Products

- ◆ Xilinx Solutions

- ◆ Alliances

- ◆ Summary

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Summary

- ◆ No need for additional new wiring
  - — Existing wires can be used as a medium
  - — An inexpensive solution

- ◆ Multiple availability of power outlets in each room and across homes
  - — There are more power outlets than phone jacks in each room
  - — In every 6 feet there is a power outlet

- ◆ A mature and proven technology for home automation
  - — X-10, CEBus, LONWork, Plug-in, and Adoptive Network technologies have being used for many years

Summary

- New powerline controller products promising a faster, more reliable, and more secure delivery of data, voice, and even video applications
  - Some products have the data rate of 10 Mbps and higher
  - New product developments to reach 25 Mbps and higer
  - New technologies have reduced the noise, data attenuation, and security issues

- Spartan-II FPGAs, CoolRunner & 9500 CPLDs provide system interconnectivity in Ethernet based products

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