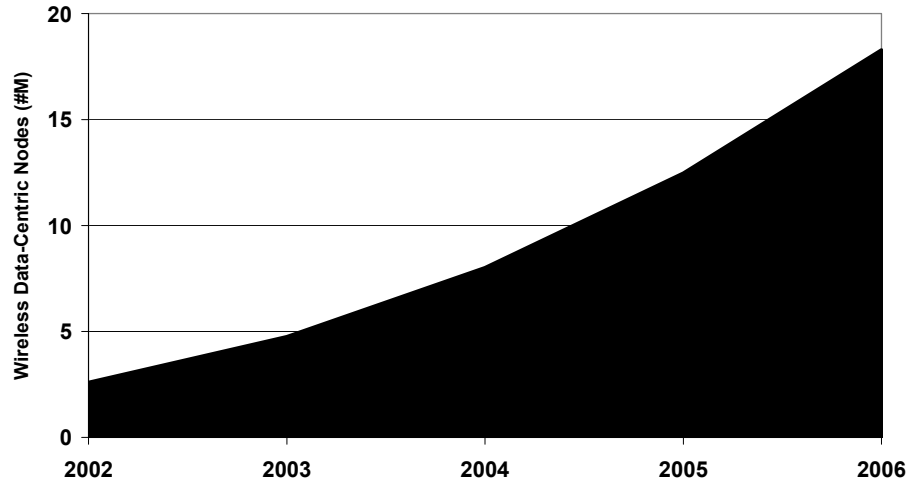


**Synopsis** **Deployment of Networks**

The home network will encompass as many as four major application categories - PC LANs, entertainment, control, and communications.

This topical report examines the broad market for data networks and provides updates and analysis of the various networking technologies, as well as forecasts through 2006.

**Cumulative Wireless Nodes: Data-Centric Networks (U.S. Households)**



Source: *Networks in the Home: Analysis and Forecasts (Third Edition)*  
© 2002 Parks Associates

**Publish Date:** Nov 02  
**Figures:** 46  
**Pages:** 74

"The rapid deployment of wireless networks in the enterprise and residential sectors has reduced the end-user cost for residential consumers to the point that these solutions have become very affordable in a very short time span," said Kurt Scherf, vice president of research for Parks Associates.

"The need for flexibility in networks has increased as consumers use more mobile devices such as laptop computers and thus seek more options to expand the work areas in their homes. We're also seeing increased deployment of wireless access points, routers, and residential gateways, which will also spur RF networking at home."

**Contents**

**Parks Associates**  
5310 Harvest Hill Road  
Suite 235  
Lock Box 162  
Dallas TX 75230-5805

800.727.5711 toll free  
972.490.1113 phone  
972.490.1133 fax

parksassociates.com  
sales@  
parksassociates.com

**1.0 Executive Summary**

- 1.1 Purpose of This Report
- 1.2 Where is Data Networking Headed?
- 1.3 Why Do Consumers Want Data Networks?
- 1.4 The Technologies Driving Home Networking
- 1.5 Forecasts
- 1.6 The Multiple-PC Household

**2.0 The Technologies and Players Driving the Market**

- 2.1 Wired Solutions
  - 2.1.1 A Brief Overview of Structured Wiring
  - 2.1.2 Ethernet
- 2.2 "No-New-Wires" Solutions
  - 2.2.1 HomePNA
    - General Background Information
    - Brief History
    - Applications

- Products
- HomePNA's Long-Term Outlook
- 2.2.2 Proprietary Phonenumber Networking Companies
  - SerCoNet
- 2.2.3 Radio Frequency Solutions
  - HomeRF
    - General Background Information
    - Brief History
    - Applications
    - Products
    - HomeRF's Long-Term Outlook
  - Wi-Fi™ (IEEE 802.11b)
    - General Background Information
    - Brief History
    - Applications
    - Products
    - IEEE 802.11b's Long-Term Outlook
    - Other 802.11 "Flavors"
      - 802.11e
      - 802.11f
      - 802.11g
      - 802.11h
      - 802.11i
    - IEEE 802.11a
      - General Background Information
      - Brief History
      - Applications
      - Products
      - 802.11a's Long-Term Outlook
  - HiperLAN2
    - General Background Information
    - Brief History
    - Applications
    - Products
    - HiperLAN2's Long-Term Outlook
- Personal Area Network Solutions
  - Bluetooth
  - Ultra-Wideband
- 2.2.4 High-Speed Powerline Solutions
  - HomePlug™ Powerline Alliance
    - General Background Information
    - Brief History
    - Applications
    - Products
    - HomePlug's Long-Term Outlook
  - CEA R7.3
- 2.2.5 Coaxial Networking
  - Companies to Watch
  - Coaxial Networking's Long-Term Outlook

**3.0 Forecasts**

- 3.1 Underlying Data
  - 3.1.1 U.S. Households
  - 3.1.2 Multi-PC Households

- 3.2 Consumer Adoption Model: Multi-PC Households
  - 3.2.1 The Forecast Model
  - 3.2.2 U.S. Households with PC LANs (Millions)
  - 3.2.3 Penetration of PC LANs Among U.S. Households (Percent)
- 3.3 Corroborating the Consumer Data
  - 3.3.1 Comparing Multi-PC Consumer Data with Data from Broadband Households
  - 3.3.2 Growth in Broadband Use in U.S. Households
  - 3.3.3 The Forecast Model
  - 3.3.4 Comparing the Results from Two Models
- 3.4 Growth in PC Networks: 2002-2006
- 3.5 Establishing Nodes Per Household
  - 3.5.1 What is a Node?
    - Pre-Configured PCs
    - PCI Cards
    - PC Cards
    - Adapters
    - Access Points
  - 3.5.2 How Many Nodes Per Household?
  - 3.5.3 Total Nodes in PC Networks
- 3.6 Splitting Between Ethernet and "No-New-Wires" PC Networks
  - 3.6.1 Ethernet's Share of the Total PC LAN Market
- 3.7 Breaking Down the "No-New-Wires" PC LAN Market
  - 3.7.1 Growth in Networks
  - 3.7.2 Growth in "No-New-Wires" PC Network Nodes
  - 3.7.3 "No-New-Wires" Annual Node Sales: By Media
  - 3.7.4 "No-New-Wires" Cumulative Node Growth: By Media

**Figures**

**Figures in Section 1.0**

- Home Networking Applications Categorized
- Cross-category Interest in the Networked Home
- Penetration of U.S. Homes with Computers
- Cumulative PC LAN Nodes Installed: New Wires or Not?
- Residential Wireless LAN Nodes
- Devices Connected to Home Networks
- "No-New-Wires" Marketing Share: Cumulative Networks
- Cumulative U.S. Households with PC LANs
- Total PC Network Nodes
- "No-New-Wires" Data-centric Networks
- "No-New-Wires" PC LAN Nodes Installed Per Year, by Media
- U.S. Households with Data-centric Networks
- Breakdown of Multiple-PC Households

**Figures in Section 2.0**

- Home Builders Offering Structured Wiring
- Single-Family Structured Wiring Installations
- The Changing Face of Home Networks
- HomePNA Products
- HomeRF-Certified Products
- WECA-Certified Products
- 802.11a Cardbus Reference Design
- HiperLAN2 Network Topology

HomePlug Certified Products

**Figures in Section 3.0**

U.S. Households  
 PC Penetration in U.S. Households  
 Forecast Model for PC Networks: Consumer Adoption Model  
 U.S. Households with a PC LAN  
 Percent of U.S. Households with a PC LAN  
 The Relationship Between Broadband and Home Networking  
 Multiple PC Households: Broadband vs. Dial-up Access  
 Growth in Broadband  
 Penetration of Broadband Internet Access in U.S. Households  
 Forecast Model for PC Networks: Consumer Adoption Model  
 Comparing the Results of Two Forecast Models  
 PC Network "Kits" Added, Per Year  
 Total PC Network Nodes  
 Ethernet Share of the Total Home PC LAN Market  
 "No-New-Wires" Data-centric Networks  
 Growth in "No-New-Wires" PC Nodes  
 "No-New-Wires" PC LAN Nodes Installed Per Year, by Media  
 "No-New-Wires" PC LAN Nodes Installed Per Year, by Media  
 Share of "No-New-Wires" PC Network Kits Sold, by Year  
 Cumulative "No-New-Wires" PC LAN Nodes Installed, by Media  
 Cumulative "No-New-Wires" PC LAN Nodes Installed, by Media  
 Share of Cumulative "No-New-Wires" Kits Sold  
 U.S. Households with Data-centric Networks (Millions)

Attributes	
<p><b>Parks Associates</b>            5310 Harvest Hill Road            Suite 235            Lock Box 162            Dallas TX 75230-5805</p> <p>800.727.5711 toll free            972.490.1113 phone            972.490.1133 fax</p> <p>parksassociates.com            sales@            parksassociates.com</p>	<p>Authored by: Kurt Scherf            Executive Editor: Tricia Parks            Copy Editor: Brian Canny            Produced by: Kurt Scherf            Published by Parks Associates</p> <p>© September 2002 Parks Associates            Dallas, Texas 75230</p> <p>All rights reserved. No part of this book may be reproduced, in any form or by any means, without permission in writing from the publisher.</p> <p>Printed in the United States of America.</p> <p><b>Disclaimer</b>            Parks Associates has made every reasonable effort to ensure that all information in this report is correct. We assume no responsibility for any inadvertent errors</p>