

TABLE OF CONTENTS

By Brad Russell, Research Director, Connected Home, and Dr. Kenneth Wacks, Contributing Analyst, Parks Associates

Synopsis Logical Organization of an Integrated Home System New technology is emerging in the home networking market, driven by increasing demand for faster speeds and greater Entertainment **Heating & Cooling** performance. This report examines the state of the home networking market, including new **Appliances Access & Security** innovations in technology such as the 802.11 AZ standard, Wi-Fi mesh, Bluetooth Low Energy, DOCSYS, the emerging 10G Computers Lighting space, and the likely Residential External impact of these Gateway Services innovations on home broadband providers. the smart home industry, and consumer electronics players. Publish Date: 3Q 20 "As consumers become more interested in interconnected home systems, the interoperability challenges of distributed components and integrated applications provide opportunities for manufacturers and service providers," said Brad Russell, Research Director, Connected Home, Parks Associates. **Key Questions** What is the current state of the home network market? How have home networks evolved to date? What market forces are shaping the home network market? What is current consumer ownership of home networking products? What are the business models for home networking, and how does this affect adoption of different types? What issues are driving home networking technology choices for consumers? Contents **Bottom Line The Connected Home** Why We Need a Home Network



TABLE OF CONTENTS

Working Definitions

Market Forces Shaping Home Networks

Home Network Choices

The Home Network Marketplace

A Fragmented Home Network Market

Connecting a Home Network to an External Network

Will IoT Unify Home Networks?

Communication Protocols

The Residential Gateway

Wired Home Networks

Structured Cabling for Wired Networks

Ethernet Communications

Power-over-Ethernet (PoE)

PoE Technology

PoE Installation Benefits

Structured Cabling Complements Wi-Fi

Power Line Carrier (PLC) Networks

Wireless Networks

Wi-Fi Options

Wi-Fi Version Performance

Wi-Fi Coverage

Wi-Fi Extender

Wi-Fi Mesh Network

Wi-Fi Mesh Products and Performance

Cellular Systems

Cellular Systems for Home Appliances Cellular Systems for Home Networks

The Business of Home Networks

Home Networks Installation Challenges

Home Network Installation Market

Network Suppliers and Installers

Home Network as a Service

Trends in Home Networks

Implications and Recommendations

A Fragmented Home Network Market

Wireless Networks

Home Network Installation

Appendix

Citations

Attribution

Figures	
	Home Networking Device Ownership



TABLE OF CONTENTS

Logical Organization of an Integrated Home System

Home Network Marketplace

Smart Home Device Ownership (2014-2020)

Wiring for Home Automation and Broadband Data

Connectors, Coax & Ethernet Outlet, Structured Cabling Cabinet, Connecting to Devices

RJ45 – Universal Outlet for Power + Data

Legrand Gigabit Power Line Adapters

Not Intending to Purchase a Smart Home Device due to Security and Privacy Concerns (2017-2018)

5G Home Network Modem & Router

Average Number of Connected Device per Household

Preferred Technical Support Solution for Self-Installation

Home Network Technical Problems (2019-2020)

Home Network Experiences during COVID-19 Crisis

Disruptions Due to Problem with Home Network during COVID-19 Crisis

Interest in Add-On Network Services

List of Companies		
	Abode	Nerds on Call
	AirTies	Netgear
	Altice	OneVision Resources
	Best Buy Geek Squad	Plume
	Charter	Qorvo
	Cirrent	Spectrum
	Comcast	Verizon
	Cox Media	Wi-Fi Alliance
	ITS Telecom	



TABLE OF CONTENTS

Attributes

Parks Associates 5080 Spectrum Drive Suite 1000W Addison, TX 75001

800.727.5711 toll free 972.490.1113 phone 972.490.1133 fax

parksassociates.com sales@ parksassociates.com Authored by Brad Russell and Ken Wacks

Executive Editor: Tricia Parks Published by Parks Associates

© October 2020 Parks Associates Addison, Texas 75001

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.

Printed in the United States of America.

Disclaimer

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.