Consumer Interest in Wired Solutions to Wireless Home Networking Problems: Quantitative Findings

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RESEARCH PRODUCED FOR:

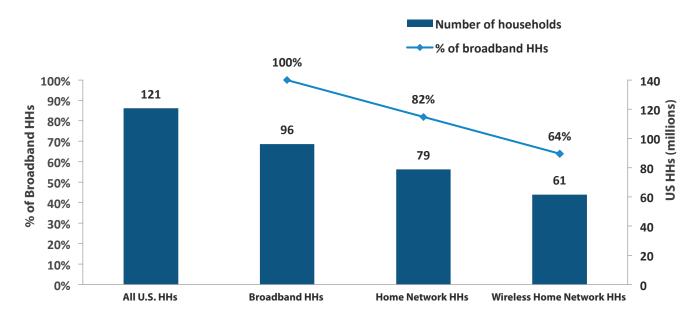
Research Study Purpose

The Multimedia over Coax Alliance (MoCA) contracted Parks Associates to conduct a consumer survey to gain an in-depth understanding of home network owners' current home network types, usage, issues, frustrations, and preferences.

As part of this assessment, Parks Associates designed and fielded an online survey in February 2015 to 1,000 home network owners living in U.S. households having broadband Internet access. All respondents are heads-of-household ages 18 and older.

Parks Associates estimates that there are 79 million home network households in the United States, which represents 82% of all households with broadband Internet access. 61 million, or 64% of all broadband households, have a wireless home network.

Technology & U.S. Households (Q1/15)



Source: MoCA Custom Survey: Broadband Households Q1 2015 | N=1,000, ±3.1% | © 2015 Parks Associates

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Key Consumer Survey Findings

Nearly 40% of all households with a wireless router have experienced problems with their wireless network.

- Among those experiencing problems, 87% have experienced a slow connection or a deadzone; 63% continue to experience these problems despite efforts to resolve them.
- This equates to 15m HHs (19% of BB HHs with wireless home networks) that continue to experience dead zones or slow wireless connections in their homes.

Wireless networking problems are exacerbated by connected device congestion in the home.

- The number of wirelessly connected devices is a key driver of network problems. Those with a large number of devices connected to a wireless network are more likely to have experienced problems and also are more likely to continue experiencing problems despite efforts to resolve the issue.
- 27% of respondents experiencing a wireless home network problem report that the problem can be attributed, at least in part, to too many devices connected to the Internet simultaneously. This a top cited reason for home networking issues, second only to problems with the Internet service itself.

One-half of those experiencing wireless network problems have considered using a wired solution to address the problem.

- Consideration levels are similar across the wired solutions tested: Ethernet/Cat-5 wiring, the existing electrical wiring in the home, and the existing cable wiring in the home.
- Owners of large homes are much more likely than those with smaller homes to have considered using a wired solution to improve their home network's performance.

Over half of all home network owners would be "very comfortable" using a wired solution to improve the performance of their network.

- 58% of all network owners report being "Comfortable" (rating 5-7 on a 7-pt. scale) using the existing cable (coax) wiring in their homes to improve their home network's performance.
- A similar number report being comfortable using the existing electrical wiring in their homes (56%), and 52% report being comfortable using Ethernet/Cat-5 wiring
- Those expressing comfort with wired solutions are also more likely than others to express "early
 adopter" attitudes; that is, they are more likely to enjoy staying on top of new technology and owning
 the latest and greatest devices and services.

Research Findings

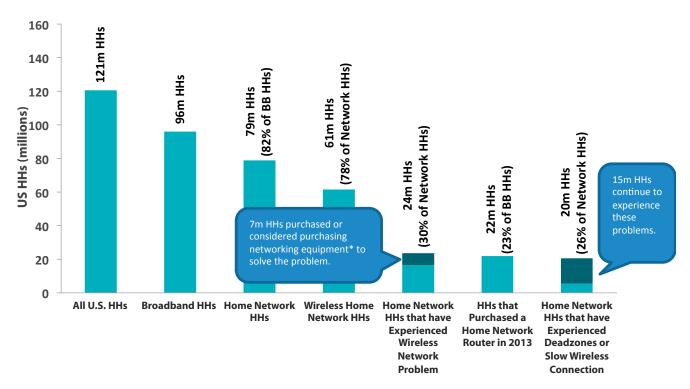
Over 4 in 5 U.S. households with broadband Internet access have a home network.

82% of all broadband households in the U.S., or 79 million households, have a home network (wired or wireless). 64% of all broadband households, or 61 million households, have a wireless home network.

Parks Associates estimates that 15m households currently experience deadzones or slow wireless network performance at home.

- Slightly less than 40% of all households with a wireless router have experienced problems with their wireless network, and 26% have experienced a slow wireless connection and poor wireless coverage throughout the home.
- 19% of all network households continue to experience these problems, despite efforts to resolve the issue. This translates into 15million HHs.

Wireless Network Market Segments (Q1/15)



Source: MoCA Custom Survey: Broadband Households Q1 2015 | N=1,000, ±3.1% Source: American Broadband Households and Their Technologies Q3 2014 | N=10,000, ±0.98% | © 2015 Parks Associates

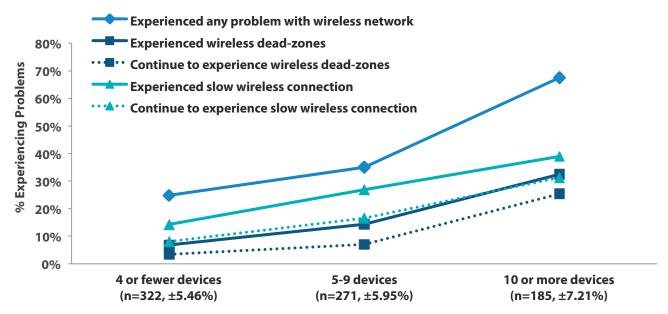
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Wireless networking problems correlate with the number of devices connected to the wireless network.

- Those with a large number of devices connected to their wireless network are more likely to have experienced problems with their home network, and also are more likely to continue experiencing problems despite efforts to resolve the issue. The most likely explanation for this correlation is that the expanding number of connected devices in the home is taxing the home network's bandwidth.
- Consumers recognize that device congestion is an issue; 27% of survey respondents experiencing a
 wireless home network problem attribute their network's performance issues to device congestion.
 This a top cited reason for home networking issues, second only to problems with the Internet service
 itself.
- The number of devices connected to a wireless network increases with the number of children living in a home. Households with two or more children in the home have over eight devices connected to the wireless network, on average, compared with an average of just 4.4 connected devices in households without children.

Wireless Home Network Problems by Number of Devices Wirelessly Connected to Network (Q1/15)

Among Respondents with Specified Number of Devices Wirelessly Connected to Network



Number of Devices Wirelessly Connected to Network

"Q2100. Since you began using a home network router, have you experienced any problems with your wireless network, including performance or coverage issues in your home?"|

Source: MoCA Custom Survey: Broadband Households Q1 2015 | N=1,000, ±3.1% | © 2015 Parks Associates

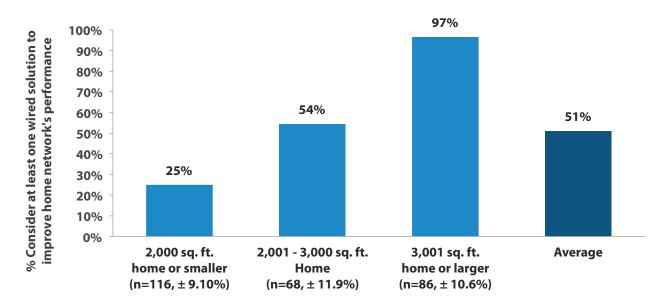
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One half of those experiencing wireless network problems have considered using a wired solution to address the problem.

- Consideration levels are similar across particular wired solutions tested: 28% of respondents experiencing wireless network problems have considered using Ethernet/Cat-5 wiring to improve their home network's performance; 27% have considered using the existing electrical wiring or the existing coax wiring in their home.
- Owners of large homes are much more likely than those with smaller homes to considered using Ethernet, electrical wiring, or coax to improve their home network performance. 97% of respondents with a home larger than 3,000 square feet report considering at least one of these wired options, compared with only 25% of owners of homes 2,000 square feet or smaller.
- Consumers who have purchased networking equipment in the past to address a problem with their
 wireless network are also more likely to have considered using a wired solution. 79% of these network
 equipment purchasers have considered using a wired solution to improve their home networks,
 compared with 44% of those who have not made a network equipment purchase to address a home
 network issue.

Consideration of Wired Solution to Improve Home Network (Q3/14)

Among Respondents Experiencing a Wireless Home Network Problem with Specificed Home Sizes



"Q2150. Have you ever looked for ways of improving your home network's perofrmance by using [Ethernet/Cat-5 wiring, the existing electrical wiring in your home, or the existing cable-TV (coax) wiring in your home]?"

Source: MoCA Custom Survey: Broadband Households Q1 2015 | N=1,000, ±3.1% | © 2015 Parks Associates

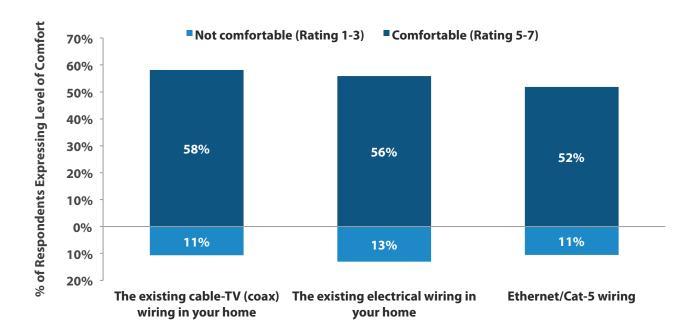
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Over 50% of respondents would be comfortable using wired solutions to resolve networking problems

- 58% of all network owners report being "Comfortable" (rating 5-7 on a 7-pt. scale) using the existing cable (coax) wiring in their homes to improve their home network's performance.
- A similar number report being comfortable using the existing electrical wiring in their homes (56%), and 52% report being comfortable using Ethernet/Cat-5 wiring.
- Only 11% of respondents report that they would be "uncomfortable" using the existing coax wiring to improve their home network.

Comfort with Using Existing Wiring to Improve Home Network Performance (Q1/15)

Among All Respondents, $N = 1,000, \pm 3.1\%$



"Q2155. How comfortable would you be using the existing wiring in your home to improve your home network's performance?"| Source: MoCA Custom Survey: Broadband Households Q1 2015 | N=1,000, ±3.1% | © 2015 Parks Associates

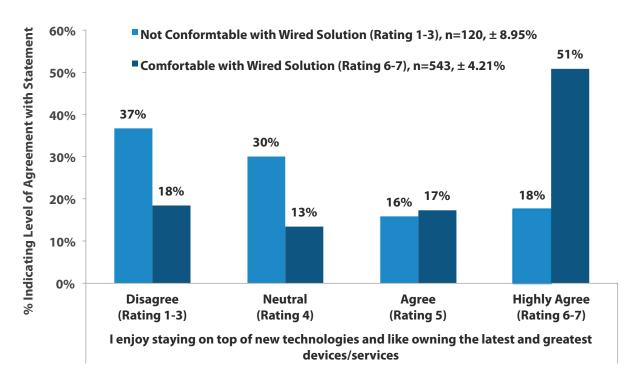
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Consumer comfort using wired home networking solutions correlates with enjoyment of technology.

- The majority of consumers who are very comfortable with the idea of using a wired solution to improve their home network also highly agree that they enjoy staying on top of new technology and owning the latest and greatest devices and services. This "early adopter" attitude is only shared by 18% of those who are uncomfortable using a wired solution.
- Consumers' gender also affects their comfort using wired solutions. Two-thirds of men report being "very comfortable" with a wired solution to improve their home network performance, compared with just 43% of women.

Tech Attitudes, by Comfort with Wired Solution (Q3/14)

Among Respondents Expressing Comfort/Discomfort Using a Wired Solution to Improve their Home Network Performance



"Q2155. How comfortable would you be using the existing wiring in your home to improve your home network's performance?" | Source: MoCA Custom Survey: Broadband Households Q1 2015 | N=1,000, ±3.1% | © 2015 Parks Associates

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Conclusions

Consumers commonly experience issues with their home networks.

- Prominent home network issues include slow Internet performance and deadzones.
- Consumers are most likely to blame their Internet service for network issues, but see device congestion and wireless network range as key problems as well.
- Device congestion is likely to worsen as the average number of connected devices per household increases annually.

Consumers are receptive to wired solutions that can improve their home network performance.

- The majority of consumers experiencing home network issues have considered using a wired solution to address the problem.
- The majority of all consumers report being comfortable using a wired solution to improve their home network performance.
- Men, owners of large homes, and those with children in the home are key market segments for wired home network solutions.

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About the Research

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For more information on the study, contact Rob Gelphman, Vice President Marketing and Member Relations, at robgelphman@mocalliance.org or 1 (408) 838-7458.

About Parks Associates

Parks Associates is an internationally recognized market research and consulting company specializing in emerging consumer technology products and services. Founded in 1986, Parks Associates creates research capital for companies ranging from Fortune 500 to small start-ups through market reports, primary studies, consumer research, custom research, workshops, executive conferences, and annual service subscriptions. The company's expertise includes new media, digital entertainment and gaming, home networks, Internet and television services, digital health, mobile applications and services, consumer electronics, and IoT including energy management, home control systems, and security.

Each year, Parks Associates hosts industry webcasts, the CONNECTIONS™ Conference Series, the Connected Health Summit and the Smart Energy Summit: Engaging the Consumer.

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