EXTENDING YOUR LOCAL NETWORK ("LAN")
Part 1 -- The Basics
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Web location for this presentation:
http://aztcs.org
Click on “Meeting Notes”
EXECUTIVE SUMMARY

There are various techniques and technologies that you can use to extend the reach and speed of your home or business network.
A demonstration of some techniques for extending the reach and speed your home or business network:
A physical diagram of our demonstration:
VMware Player
Software Program

Windows 7
Virtual Machine

HomePlug AV device
110 VAC
Existing House Electrical Wiring (up to 300 feet)

Real Host Computer
Windows "Internet Connection Sharing" (= virtual router) to simulate a broadband modem

Real Secondary Router
WAN side
LAN side

Cat 5/5e/6 Cable
(up to 328 feet)

HomePlug AV device

Wireless Access Point

2.45 GHz or 5 GHz WiFi Radio Signal

Real USB to Gigabit Ethernet Adapter
Cat 5/5e/6 Cable (up to 328 feet)

Real USB Port

USB Cable

Virtual USB Port

USB Cable
A logical diagram of our demonstration:
Windows' "Internet Connection Sharing" (= virtual router) to simulate a broadband modem.

Real USB to Gigabit Ethernet Adapter

USB Cable

HomePlug AV device

110 VAC and/or 240 VAC Existing House Electrical Wiring (up to 300 feet)

Cat 5/5e/6 Cable (up to 328 feet)

Real Secondary Router

LAN side

WAN side

Network Address Translator

Real USB Port

Virtual USB Port

"Windows 7" Virtual Machine

"Windows 7" USB Port

Real USB to WiFi Adapter

2.45 GHz or 5 GHz WiFi Radio waves

HomePlug AV device

Cat 5/5e/6 Cable (up to 328 feet)

Wireless Access Point

2.45 GHz or 5 GHz WiFi Radio waves

HomePlug AV device

HomePlug AV device

Internet

Internet

110 VAC and/or 240 VAC Existing House Electrical Wiring (up to 300 feet)

Cat 5/5e/6 Cable (up to 328 feet)
An equipment description of our demonstration:
Windows' Internet Connection Sharing (virtual router)

Real USB to Gigabit Ethernet Adapter

USB Cable

Real USB Port

Windows' "Internet Connection Sharing (virtual router)"

Real Secondary Router

WAN side          LAN side

Virtual USB Port

"Windows 7" Virtual Machine

Virtual USB Port

Real USB to WiFi Adapter

USB Cable

Real Secondary Router

WAN side          LAN side

Network Address Translator

Wireless Access Point

Cat 5/5e/6 Cable (up to 328 feet)

Internet

2.45 GHz or 5 GHz WiFi Radio waves

HomePlug AV device

110 VAC and/or 240 VAC Existing House Electrical Wiring (up to 300 feet)

Cat 5/5e/6 Cable (up to 328 feet)

"Windows 7" Virtual Machine

Real USB to WiFi Adapter

USB Cable

Real Secondary Router

WAN side          LAN side

Network Address Translator

Wireless Access Point

Cat 5/5e/6 Cable (up to 328 feet)

Internet

2.45 GHz or 5 GHz WiFi Radio waves

HomePlug AV device

110 VAC and/or 240 VAC Existing House Electrical Wiring (up to 300 feet)

Cat 5/5e/6 Cable (up to 328 feet)
Real USB to Gigabit Ethernet Adapter

Part of Laptop Computer to Simulate a Broadband Modem

Windows' "Internet Connection Sharing (= virtual router)"

Real USB Port

USB Cable

Cat 5/5e/6 Cable (up to 328 feet)
connects to
StarTech.com USB 3.0 to Gigabit Ethernet NIC Network Adapter

Be the first to review this product...

In stock.

- 10/ 100/ 1000Mbps

Ask Or Answer A Question
TP-LINK TL-SG1005D
10/100/1000Mbps Unmanaged 5-Port Gigabit Desktop Switch, Power-Saving

In stock. Limit 5 per customer.

- 5 x RJ45 Ports, Auto MDI / MDIX
- 9K Jumbo frame
- 802.3X Flow Control, Back Pressure
- Saves the Power up to 70%
- IEEE 802.3x Flow Control
- Plug and Play

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Newegg

Protect Your Investment!

☐ 3 Year Extended Replacement Plan $9.00

Send It As A Gift!
connects to
connects to
Windows’ "Internet Connection Sharing (= virtual router)"

Real USB to Gigabit Ethernet Adapter

Real USB Port

"Windows 7" Virtual Machine

Virtual USB Port

Real USB to WiFi Adapter

Network Address Translator

2.45 GHz or 5 GHz WiFi Radio Waves

HomePlug AV device

Real Secondary Router

WAN side

LAN side

USB Cable

Cat 5/5e/6 Cable (up to 328 feet)

110 VAC and/or 240 VAC Existing House Electrical Wiring (up to 300 feet)

Internet

HomePlug AV device

Cat 5/5e/6 Cable (up to 328 feet)
Cat 5/5e/6 Cable (up to 328 feet)

110 VAC and/or 240 VAC Existing House Electrical Wiring (up to 300 feet)

HomePlug AV device

HomePlug AV device
TP-LINK TL-PA6010KIT AV600 Gigabit Powerline Adapter Starter Kit Up to 600Mbps

- Standards: HomePlug AV, IEEE802.3, IEEE802.3u, IEEE802.3ab
- Interface: 1 x Gigabit Ethernet Port
- LEDs: PWR, PLC, ETH
- Model #: TL-PA6010KIT
- Item #: N82E16833704200
- Return Policy: Standard Return Policy

$79.99

Save: 20%
Free Shipping

ADD TO CART »
TP-LINK TL-PA6010KIT AV600 Gigabit Powerline Adapter Starter Kit Up to 600Mbps

- **Standards**: HomePlug AV, IEEE802.3, IEEE802.3u, IEEE802.3ab
- **Interface**: 1 x Gigabit Ethernet Port
- **Encryption**: Powerline Security: 128-bit AES
- **LEDs**: PWR, PLC, ETH
- **Model #:** TL-PA6010KIT
- **Item #:** N82E16833704200
- **Return Policy**: Standard Return Policy
connects to
BELKIN F9K1112 AC1000 DB Wi-Fi Dual-Band AC+ Gigabit Router | IEEE 802.11ac, IEEE 802.11a/b/g/n

In stock.

- IEEE 802.11ac, IEEE 802.11a/b/g/n
- Up to 650+300Mbps (5GHz/2.4GHz) Wireless Data Rates
- 1 x 10/100/1000M WAN; 4 x 10/100/1000M LAN

FREE SHIPPING AVAILABLE

$112.99

Save: $38.00 (25%)
connects to your desktop, laptop, tablet, cell phone, etc.:
Windows' "Internet Connection Sharing (= virtual router)"

Real USB to Gigabit Ethernet Adapter

USB Cable

110 VAC and/or 240 VAC Existing House Electrical Wiring (up to 300 feet)

Cat 5/5e/6 Cable (up to 328 feet)

Windows' "Internet Connection Sharing (= virtual router)"

Real USB Port

Cat 5/5e/6 Cable (up to 328 feet)

Real Secondary Router

WAN side          LAN side

Network Address Translator

Real Secondary Router

WAN side          LAN side

Wireless Access Point

2.45 GHz or 5 GHz WiFi Radio Waves

"Windows 7" Virtual Machine

"Windows 7" Virtual Machine

Real USB to WiFi Adapter

USB Cable

HomePlug AV device

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Cat 5/5e/6 Cable (up to 328 feet)

Wireless Access Point

2.45 GHz or 5 GHz WiFi Radio Waves

"Windows 7" Virtual Machine

"Windows 7" Virtual Machine

Real USB to WiFi Adapter

USB Cable

USB Cable
Part of Laptop Computer

"Windows 7" Virtual Machine

Virtual USB Port

Real USB to WiFi Adapter

2.45 GHz or 5 GHz WiFi Radio Waves

USB Cable
TOPICS

• A Typical Home or Business Network
• Adding "USB 3" Wired and Wi-Fi Network Adapters To Your Computer
• Extending a Home or Business Network
TOPICS (continued)

• Cat 5/5e/6/6a Cabling
• Adding Additional Wireless Access Points
TOPICS (continued)

• Additional Wireless Enhancements To Speed Up Your Wireless Network
• Less Common Equipment Options
A TYPICAL HOME OR BUSINESS NETWORK

- Your home or business network is sometimes called a "local area network" or "LAN".
A TYPICAL HOME OR BUSINESS NETWORK

• A typical home or business network consists of a broadband modem, a router, and end-user computers, tablets, cell phones, gaming consoles, televisions, etc. connected to the router:
A TYPICAL HOME OR BUSINESS NETWORK (continued)

• For more details about these various components, see http://ask-leo.com/how_should_i_set_up_my_home_network.html which is the source of the previous diagram.
• DSL MODEM (CENTURYLINK) VERSION OF THE TYPICAL NETWORK DIAGRAM:
Verizon's DSL MODEM
CAT 5e Cable

CAT 5 /5e /6/6e Cables or WiFi
• CABLE MODEM VERSION OF THE TYPICAL NETWORK DIAGRAM:
Time Warner's Cable Modem

CAT 5/5e/6/6A Cable

Router

CAT 5/5e/6/6a Cable or WiFi

Internet

Modem

Computer

Computer
• SATELLITE DISH MODEM VERSION OF THE TYPICAL NETWORK DIAGRAM:
Dish Network's Satellite Modem

CAT 5 /5e/6 Cable

Router

CAT 5 /5e /6/6a Cable or WiFi

Internet

Modem

Computer

Computer
• GENERIC DIAGRAM OF THE TYPICAL HOME OR BUSINESS NETWORK:
BROADBAND MODEM
CAT 5
/5e
/6/6a
Cable

Internet

Modem

Router

CAT 5
/5e
/6/6a
Cables
or
WiFi

Computer

Computer
• SOMETIMES THE BROADBAND MODEM AND THE ROUTER ARE COMBINED IN ONE BOX:
BROADBAND MODEM AND ROUTER COMBINED IN ONE BOX

Internet

Modem

Router

CAT 5 /5e /6/6a Cables or WiFi

Computer

Computer
ADDING "USB 3" WIRED OR WIRELESS NETWORKING ADAPTERS TO YOUR COMPUTER

• Our tests show that most of the "USB 2" & "USB 3" wired and Wi-Fi networking adapters that are available are horrible.

• Do not buy "USB 2" network adapters even if you only have "USB 2" ports on your computer.
ADDING "USB 3" WIRED OR WIRELESS NETWORKING ADAPTERS TO YOUR COMPUTER

Here are some "USB 3" network adapters that have worked well for us:
ADDING "USB 3" WIRED OR WIRELESS NETWORKING ADAPTERS TO YOUR COMPUTER

- This "USB 3" "Edimax" Wi-Fi adapter has out-performed all of the others that we have tested.
See https://www.amazon.com/gp/product/B01G51FBF6/ref=oh_aui_search_detailpage?ie=UTF8&psc=1
Edimax EW-7833UAC AC1750 Dual-Band Wi-Fi USB 3.0 Adapter, Supports Windows 7/8/8.1/10, Mac and Linux
by Edimax

Price: $63.95 & FREE Shipping. Details

In Stock.
Want it tomorrow, July 29? Order within 9 hrs 44 mins and choose One-Day Shipping at checkout. Details
Ships from and sold by Amazon.com. Gift-wrap available.

- 11ac super fast Wi-Fi speed: next generation AC1750 Wi-Fi for HD streaming and gaming with transfer speeds up to 450Mbps (2.4GHz) or 1300Mbps (5GHz).
- USB 3.0 interface enables the USB adapter to achieve the super fast speeds which 802.11ac can provide.
- Beam forming technology: with Beam forming directional signals support, Wi-Fi performance is dramatically improved with better reliability, range and coverage and less wasted signals.
- High performance with 3T3R MIMO technology: three transmitter antennas and three Receiver antennas MIMO technology for optimized performance.
- Supports Windows 7/8/8.1/10, Mac OS 10.7 above and Linux.

23 new from $63.95
ADDING "USB 3" WIRED OR WIRELESS NETWORKING ADAPTERS TO YOUR COMPUTER

• This "USB 3" "Cable Matters" "Gigabit Ethernet" adapter has worked well for us. See https://www.amazon.com/Cable-Matters-SuperSpeed-Gigabit-Ethernet/dp/B00C50FSPU/ref=sr_1_10?ie=UTF8&qid=1469716391&sr=1-10&keywords=usb+3+gigabit+ethernet+adapter+white
Cable Matters SuperSpeed USB 3.0 to RJ45 Gigabit Ethernet Network Adapter in White
by Cable Matters

1,964 customer reviews | 318 answered questions

Price: **$16.99** & FREE Shipping on orders over $49. Details

**In Stock.**
Want it tomorrow, July 29? Order within 9 hrs 37 mins and choose One-Day Shipping at checkout. Sold by Cable Matters and Fulfilled by Amazon.

Size: **USB 3.0**

- [ ] USB 2.0
- [ ] USB 2.0 (2 Pack)
- [x] USB 3.0

Color: **White**
STRATEGIES FOR EXTENDING A HOME OR BUSINESS NETWORK

• Move the wireless router
• Move the broadband modem (and maybe your wireless router also, if the two are combined in one box)
• Add in additional wireless access points
MOVE THE WIRELESS ROUTER

- Move the wireless router so that the radio signal has less walls and furniture to go through:
  In most cases this means higher up and or closer to another area of your home or business.
Internet
Modem
Router
CAT 5 /5e /6/6a Cables or WiFi
Computer
Computer
Move the wireless router to a window to increase the signal to outside areas or other sections of your home or business.
• See
http://kheafield.com/personal/kludgenet/avery/
MOVE THE BROADBAND MODEM AND YOUR WIRELESS ROUTER

• To move a cable modem, you have to extend or replace the coaxial cable between the cable provider's point of entry and your cable modem.
MOVE THE BROADBAND MODEM (AND YOUR WIRELESS ROUTER)

• To move a satellite modem, you have to extend or replace the coaxial cable between the dish and your satellite modem.
MOVE THE BROADBAND MODEM AND YOUR WIRELESS ROUTER

• To move a DSL modem, you attach it to another telephone jack in your home or business.
CAT 5 /5e /6/6a Cables or WiFi
CAT 5/5e/6/6a CABLE

• Maximum wire length of 100 meters (328 feet)

• In our experience, many home networking routers and switches fail to transmit successfully at less than half this distance

• Safety issue: tripping hazard when wires are exposed to people

• Disadvantage: Plastic insulation is tasty to rodents!
CAT 5/5e/6/6a CABLE (continued)

• Least expensive extension technology for a local area network
  • Category 6a ~$0.25 per foot (rare)
  • Category 6   ~$0.16 per foot
  • Category 5e ~$0.08 per foot
  • Category 5   ~$0.06 per foot (rare)
CAT 5/5e/6/6a CABLE (continued)

- Using a Category 5/5e/6/6a cable provides for the fastest data transmission speeds compared to other ways to extend a network:
CAT 5/5e/6/6a CABLE (continued)

- Cat 6a - 10 Gigabit/sec Ethernet = 10GBaseT - 100 meters max
- Cat 6 - 1-Gigabit/sec Ethernet = 10GBaseT - 37 to 55 meters max
- Cat 5e – Gigabit/sec Ethernet = 1000BaseT - 100 meters max
- Cat 5 - Gigabit/sec Ethernet = 1000BaseT - 100 meters max max
CAT 5/5e/6/6a CABLE (continued)

• 10GBaseT network switches and routers are not affordable yet so Cat 6a cabling has no practical application at the present time.

• However, you might still want to install it to future-proof your cabling since the labor of installing Cat 5/5e/6/6a cabling is some much more expensive relative to the cost of the cabling and fixtures.\textsuperscript{72}
• Use Cat6 RJ45 crimp-on plugs at each end
• Only use "2 piece" plugs since the "1 piece" plugs are very hard to install and require multiple crimp attempts before you get one right
CAT 5/5e/6/6a CABLE (continued)

- Use Cat6 RJ45 crimp-on plugs at each end
- Use a quality RJ45 crimp tool
- Only use "2 piece" plugs since the "1 piece" plugs are very hard to install and require multiple crimps before you get one right
Cables Unlimited UTP-7010-50 Cat6 2-Piece RJ45 Connector for Solid Wire 50 Pack (Clear) by Cables Unlimited 

Price: $11.99 + $2.30 shipping

Estimated Delivery Date: July 29 - Aug. 3 when you choose Expedited at checkout.

In Stock.
Ships from and sold by cables4computer.

- 2-Piece assembly
- Wire management load bar to keep all 8 conductors in a staggered arrangement to reduce near end cross talk
- Works on solid core Cat6 wire
- Lifetime warranty
- Clear design assists in connection process
Platinum Tools 106188J Platinum RJ45 Cat6 Round Solid 100/Jar
by Platinum Tools
Be the first to review this item

Price: $39.67 & FREE Shipping

Estimated Delivery Date: Aug. 2 - 5 when you choose Standard Shipping at checkout.

Only 4 left in stock.
Ships from and sold by Hardware Sales Inc.

Want to hire an electrician?
Hire an electrician directly on Amazon. Backed by our Happiness Guarantee.
Learn more

- 3 prong solid conductor contact
- High performance connector
- Sold in a jar of 100

See more product details
Klein Tools VDV226-011-SEN Ratcheting Modular Crimper/Stripper/Cutter
by Klein Tools

Price: $29.42 & FREE Shipping on orders over $49. Details

Want it tomorrow, July 28? Order within 16 hrs 59 mins and choose Same-Day Delivery at checkout. Details

In Stock.
Sold by Cape Electrical Supply and Fulfilled by Amazon. Gift-wrap available.

- Fast, reliable modular-crimp connector installation for voice and data applications
- Ratchet safety-release and a blade-guard on cutting and stripping knives reduce the risk of injury
- Crimps 4, 6, and 8 position modular connectors (RJ22, RJ11/RJ12, and RJ45)
- Full-cycle ratchet mechanism prevents the release of the connector prior to full compression
ADDITIONAL WIRELESS ACCESS POINTS

• Additional wireless access points allow you to extend the coverage of your wireless network to resolve problems with wireless radio signal coverage.
ADDITIONAL WIRELESS ACCESS POINTS

• We use the term "additional" because 99 percent of the home or small business routers that are sold have at least one wireless access point inside them which you can use as an "additional wireless access point" for your home or business network.
ADDITIONAL WIRELESS ACCESS POINTS (continued)

- Actual equipment nomenclature is varied:
  - wireless router
  - wireless bridge
  - wireless extender
  - wireless bridge
  - wireless access point
  - network extender
  - Apple "Airport Express"
  - Apple "Airport Extreme"
ADDITIONAL WIRELESS ACCESS POINTS (continued)

- Additional wireless access points can enhance the other network extension technologies: You can add an additional wireless access point at the end of a Cat 5/5e/6/6a cable, a power line networking link, a phone line networking link, or a coaxial cable networking link.
ADDITIONAL WIRELESS ACCESS POINTS (continued)

- SSID = Service Set Identifier
- In most cases, you should not use the same SSID for each of the wireless access points in your home or small business network, since it will confuse any computers, cell phones, etc. that you attach to your local network
If you spent the big bucks and buy a "managed" set of wireless access points and/or routers, you can use the same SSID for all wireless access points to simplify connecting to your wireless access points for the end users:
• For example the Giants' Angel Stadium of Anaheim has about 300 wireless access points with all of them using the same SSID of AngelStadiumWiFi
ADDITIONAL WIRELESS ACCESS POINTS
(continued)

• See
• Angel Stadium is pleased to provide you with free Wi-Fi while visiting our venue. To connect to the Wi-Fi, turn on Wi-Fi on your device and locate "AngelStadiumWiFi" in the list of available Wi-Fi networks and Connect to it. You must then open the Internet Browser on
ADDITIONAL WIRELESS ACCESS POINTS (continued)

If you use the Dynamic Host Configuration Protocol (DHCP) services of an additional wireless access point device, you might have to configure the additional wireless point or your main router to utilize assign different ranges of IP addresses to prevent different wireless access points from accidently assigning the same private IP address to different end-user computers.
In most cases, it is easier to select different vendors for the main router and the additional wireless access point, if you can find vendors that do not default to the same range of dynamically-assigned IP addresses.
WEB SITES WITH ADDITIONAL WIRELESS ENHANCEMENTS

• Many Web sites have advice about improving your wireless WiFi network.

• Many of the enhancements that are mentioned do not cost money so you should always try the no-cost techniques to improve a wireless network before spending money.
WEB SITES WITH ADDITIONAL WIRELESS ENHANCEMENTS (continued)

• See http://www.computerworld.com/s/article/9240176/Wi_Fi_tw_eaks_for_speed_freaks_2013__edition and
WEB SITES WITH ADDITIONAL WIRELESS ENHANCEMENTS

• and
http://www.wikihow.com/Improve-WiFi-Reception
and
http://blog.laptopmag.com/7-ways-to-improve-your-wireless-router
and
ADDITIONAL WIRELESS ENHANCEMENTS (continued)

• and
  and
  http://www.pcworld.com/article/261495/how_to_extend_your_wifi_network.html
LESS COMMON EQUIPMENT OPTIONS

• You can use network switches as wired Ethernet extenders
• Fiber optic media converters
• High-gain antennas such as parabolic dishes
• Wireless mesh networks
• You can use a 4- or 5-port network switch as a wired Ethernet extender to extend an existing wired Ethernet cable up to an additional 100-meters in length!
APPENDIX 1
PHONE LINE NETWORKING
(DEFUNCT!)

• See
http://compnetworking.about.com/od/homenetworking/ig/Home-Network-Diagrams/Phoneline-Home-Network-Diagram.htm
• HomePNA Alliance's released the "HomePNA 3.1" standard in December 2006. This standard actually provides for data communications over both in-home telephone cables and in-home coaxial television cables.
• HomePNA equipment is not compatible with DOCSIS which is the standard for cable modem signals sent by cable television companies.

• "DOCSIS" stands for "Data Over Cable Service Interface Specification"

• Both Comcast and Cox adhere to the DOCSIS 3.0 standard.
After a brief flurry of manufacturing in 2005 and 2006, no new HomePNA products for networking over phone lines are currently available.
APPENDIX 1 (continued)
PHONE LINE NETWORKING (continued)

- See http://compnetworking.about.com/od/homenetworking/ig/Home-Network-Diagrams/Phoneline-Home-Network-Diagram.htm
Coaxial cable networking is offered by the "HomePNA 3.1" standard but few actual products are available for this standard.
APPENDIX 2
COAXIAL CABLE NETWORKING

The following HomePNA product is sold individually so you would have to buy two. See https://www.amazon.com/TRENDnet-Mid-Band-Coaxial-Network-TPA-311/dp/B00684E0UI/ref=sr_1_1?ie=UTF8&qid=1469672782&sr=8-1&keywords=HomePNA
TRENDnet Mid-Band HPNA Coaxial Network Adapter (TPA-311)

by TRENDnet

45 customer reviews | 26 answered questions

Available from these sellers.

Want to hire a computer technician?
Buy professional computer technician services directly on Amazon. Backed by our Happiness Guarantee.
Learn more

- Support HomePNA 3.1 over coaxial cable
- PHY Rate up to 256Mbps, Distance up to 1800 meter
- Support F-Type Female HomePNA and TV coax connector, Ethernet RJ-45 port
- Mid-frequency adapter designed for multimedia on demand (MOD) over existing coaxial cable
- Supports HomePNA 3.1 parameterized GoS
- Designed with universal power rating
- 2-year limited warranty

11 new from $63.79

Report incorrect product information.

Need expert advice? Ask the manufacturer directly. Learn More
• The Multimedia Over Coax Alliance provides the "MoCA 2.0" standard.
• Do not buy obsolete MoCA 1.x equipment.
• **Actiontec** appears to be the only active manufacturer: See https://www.amazon.com/Actiontec-Bonded-Ethernet-Adapter-ECB6200K02/dp/B013J7O3X0/ref=sr_1_1?ie=UTF8&qid=1469672029&sr=8-1&keywords=bonded+MoCA

• Do not buy the older Netgear MCAB1001 is rarely available anywhere
Actiontec Bonded MoCA 2.0 Ethernet to Coax Adapter, 2 Pack (ECB6200K02)
by Actiontec

★ ★ ★ ★ ★ ★
91 customer reviews | 35 answered questions

List Price: $199.99
Price: $149.99 & FREE Shipping Details
You Save: $50.00 (25%)

Want it Friday, July 29? Order within 4 hrs and choose Two-Day Shipping at checkout. Details

In Stock
Ships from and sold by Amazon.com. Gift-wrap available.

Style: 2 Pack

<table>
<thead>
<tr>
<th>1 Pack</th>
<th>2 Pack</th>
</tr>
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<tbody>
<tr>
<td>$83.94</td>
<td>$149.99</td>
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- Enhance your home’s Wi-Fi network with the speed and reliability of a wired network
- Speeds up to 1 Gbps, perfect for delivering pristine Over-the-Top HD video to the home theater
- Works over the home’s existing coaxial wiring
- MoCA 2.0 with backward compatibility to MoCA 1.1
- Will not interfere with cable TV services or other home devices
• See also http://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Daps&field-keywords=HomePNA over coax but do not buy them: All of these items appear to be "closeouts" of obsolete equipment that was manufactured more than 4 years ago.