SBC (single board computer) Ham Radio Projects

SLAARC Monthly Meeting
October 12, 2014

Larry Gauthier, K8UT

SBC Ham Radio Projects

- Agenda
  - Typical Ham Shacks
  - Typical Shack Networks
  - My First Four SBC Projects
  - Editorial
  - Predictions

SBC Ham Radio Projects

- Agenda
  - **Typical Ham Shacks**

Typical Ham Shacks

Typical Ham Shacks

Typical Ham Shacks

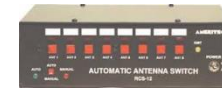# Typical Ham Shacks

Typical Ham Shacks

Typical Ham Shacks

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SBC Ham Radio Projects

▶ Agenda
  ◦ Typical Ham Shacks
  ◦ **Typical Shack Networks**

Typical Shack Networks

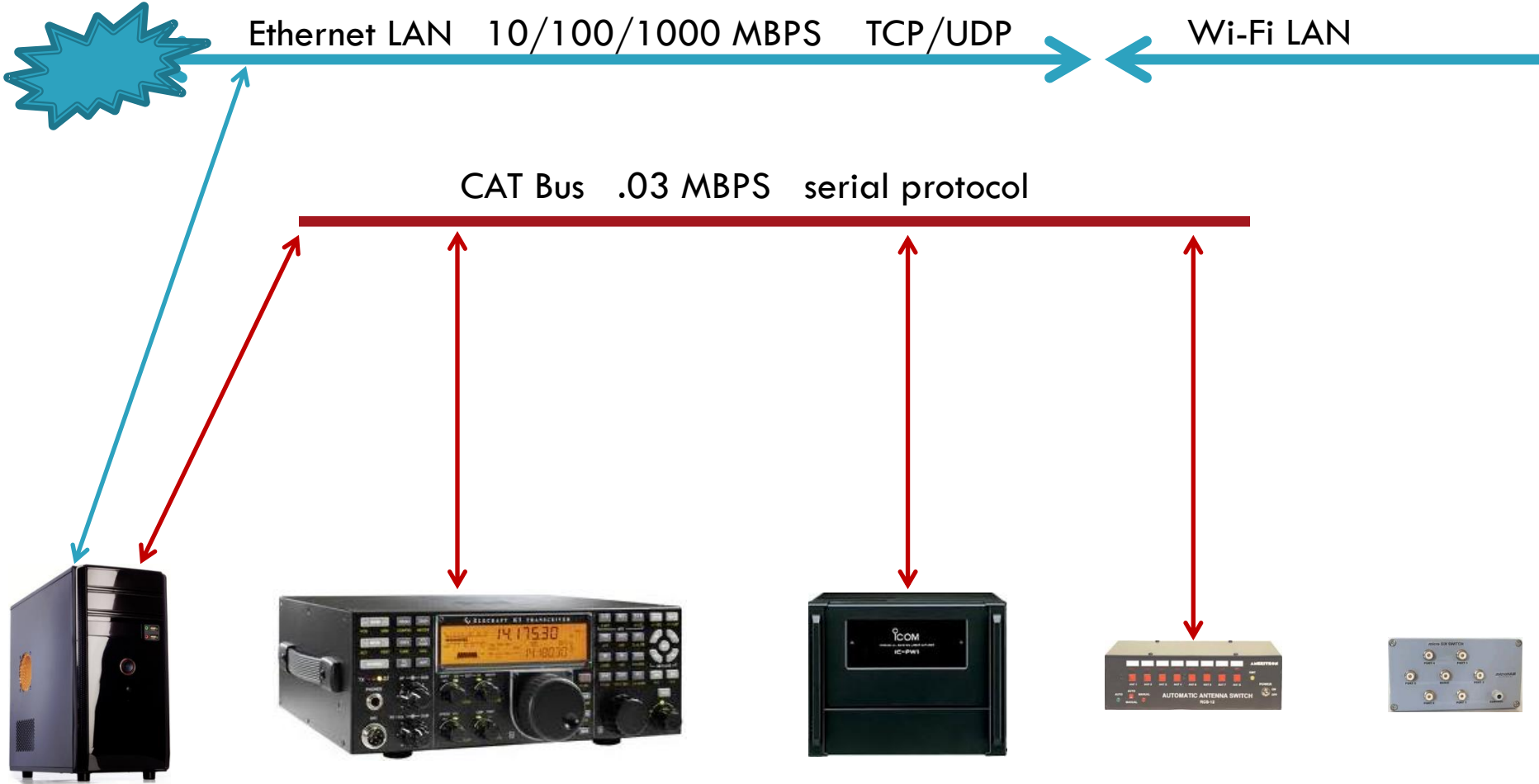Ethernet LAN   10/100/1000 MBPS   TCP/UDP   Wi-Fi LAN

Typical Shack Networks

Ethernet LAN   10/100/1000 MBPS   TCP/UDP   Wi-Fi LAN
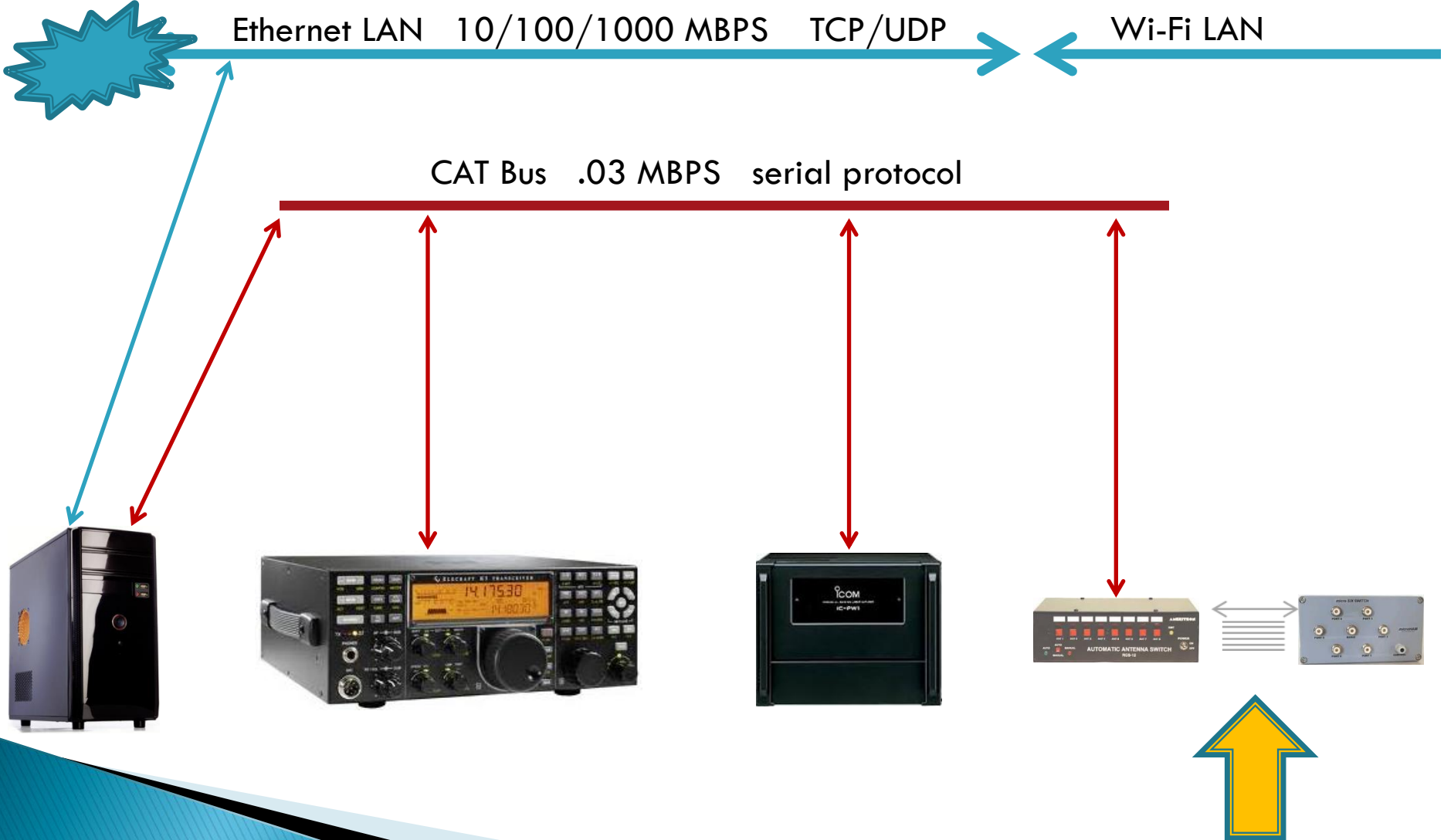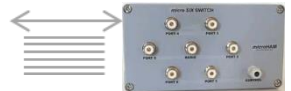
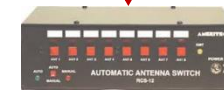CAT Bus   .03 MBPS   serial protocol

Typical Shack Networks

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SBC Ham Radio Projects

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  ◦ **My First Four SBC Projects**
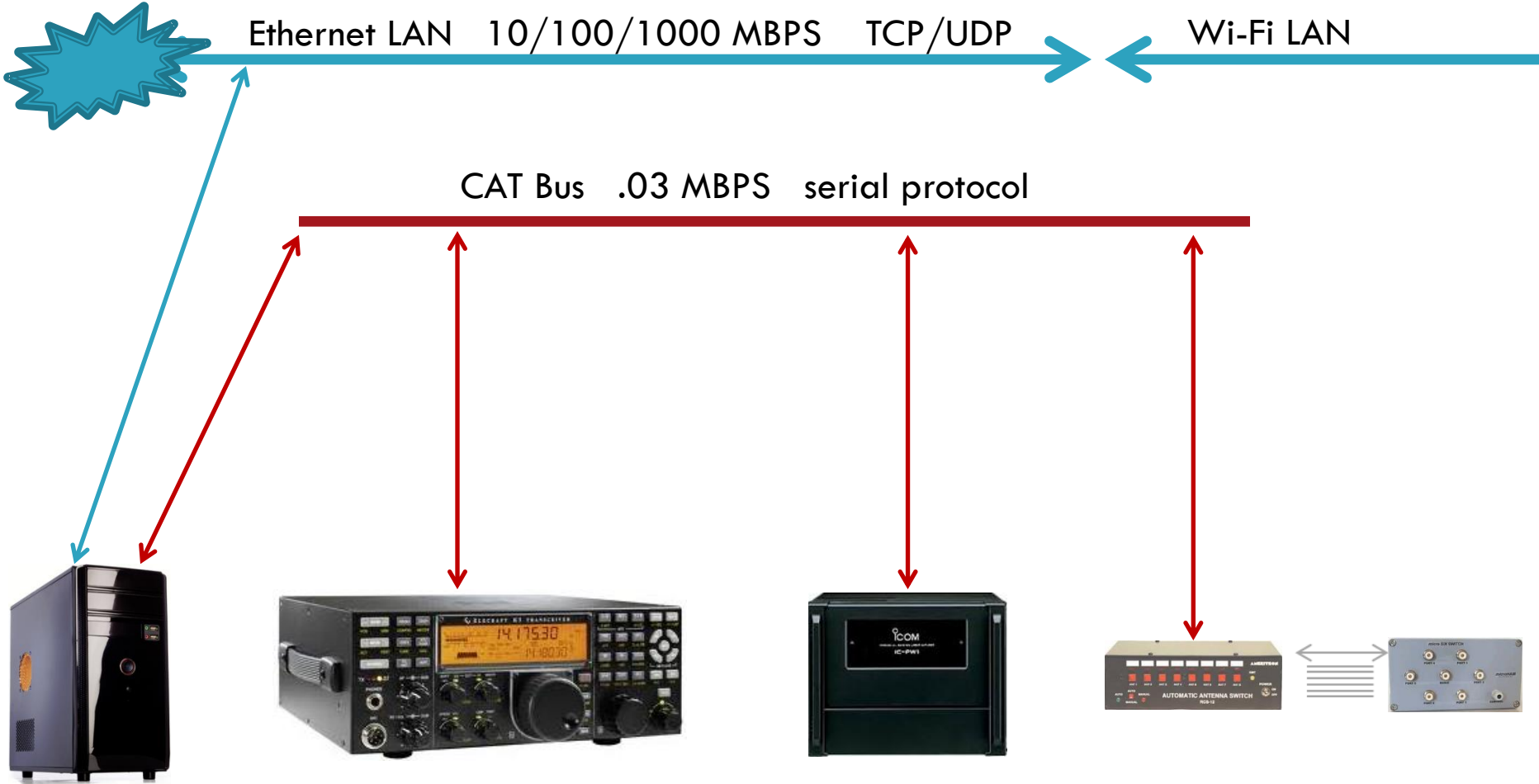
SBC Ham Radio Projects

▶ Agenda
  ◦ Typical Ham Shacks
  ◦ Typical Shack Networks
  ◦ My First Four SBC Projects
    • **Wired Band Decoder**

Typical Ham Shack

Ethernet LAN   10/100/1000 MBPS   TCP/UDP   Wi-Fi LAN

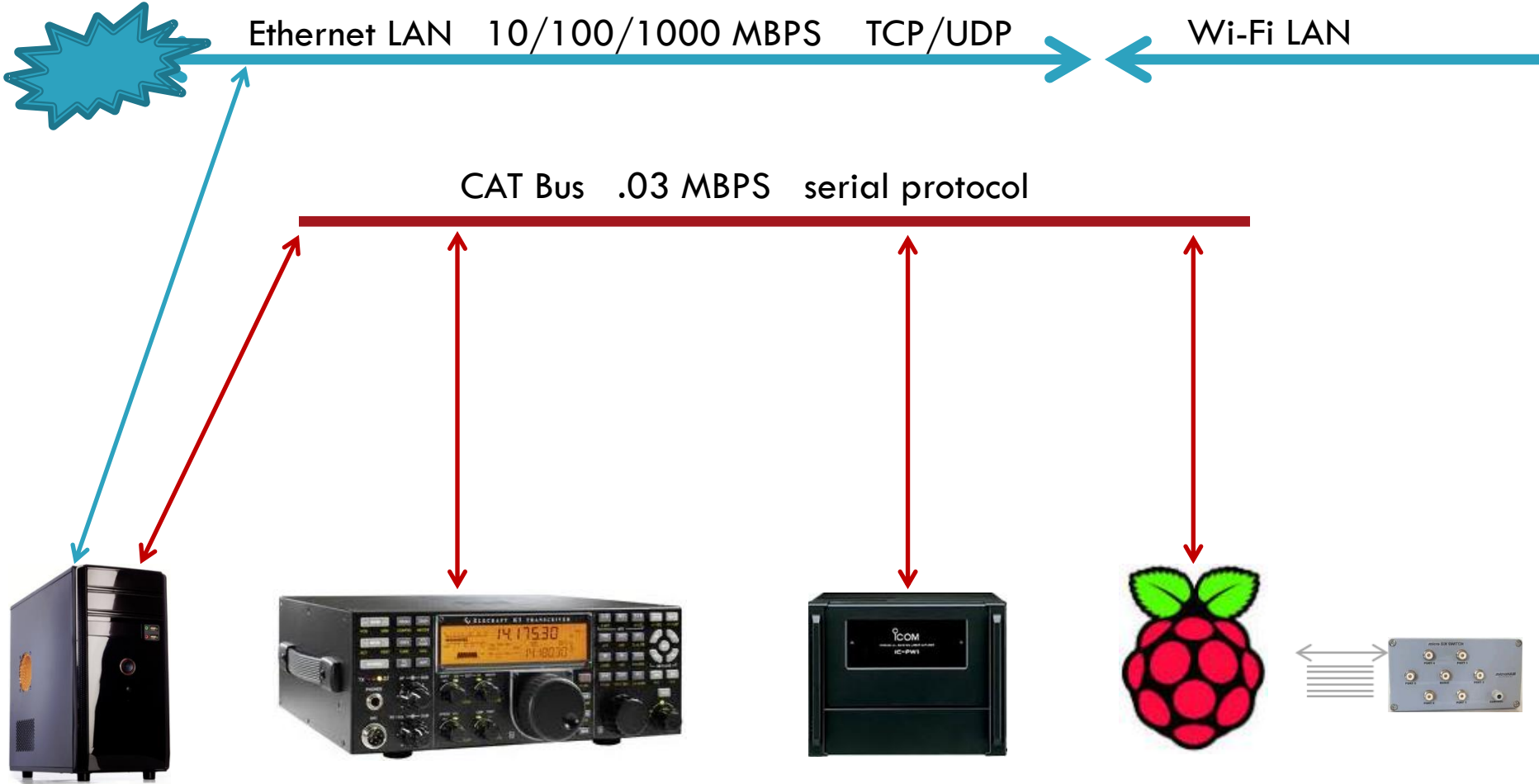CAT Bus   .03 MBPS   serial protocol

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Wired Band Decoder

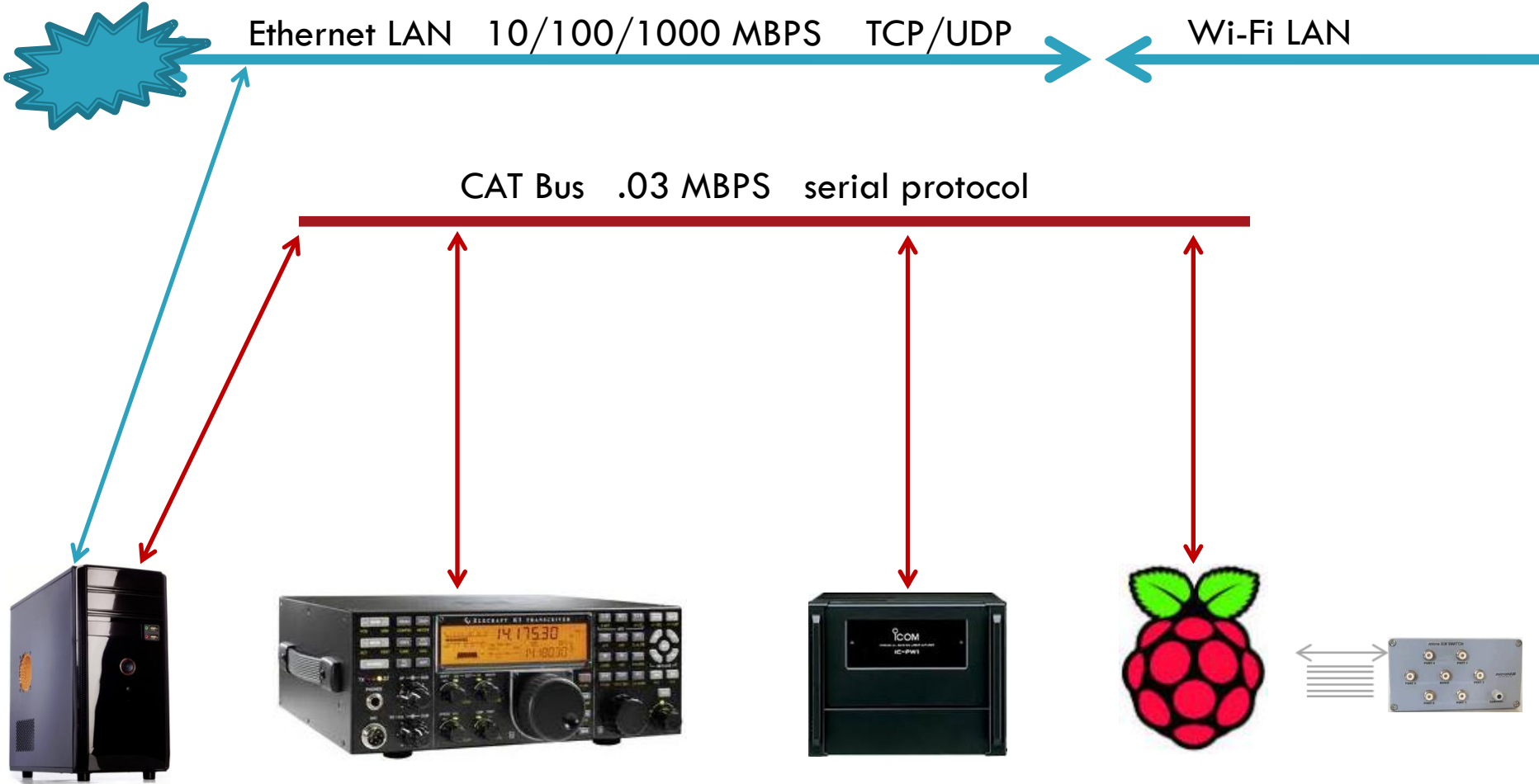# SBC Ham Radio Projects

- Agenda
  - Typical Ham Shacks
  - Typical Shack Networks
  - My First Four SBC Projects
    - Wired Band Decoder
    - **Wireless Antenna Switch**

Typical Ham Shack

Ethernet LAN   10/100/1000 MBPS   TCP/UDP   Wi-Fi LAN

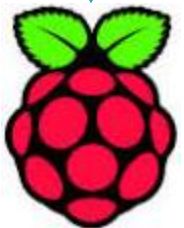CAT Bus   .03 MBPS   serial protocol

Wired Band Decoder
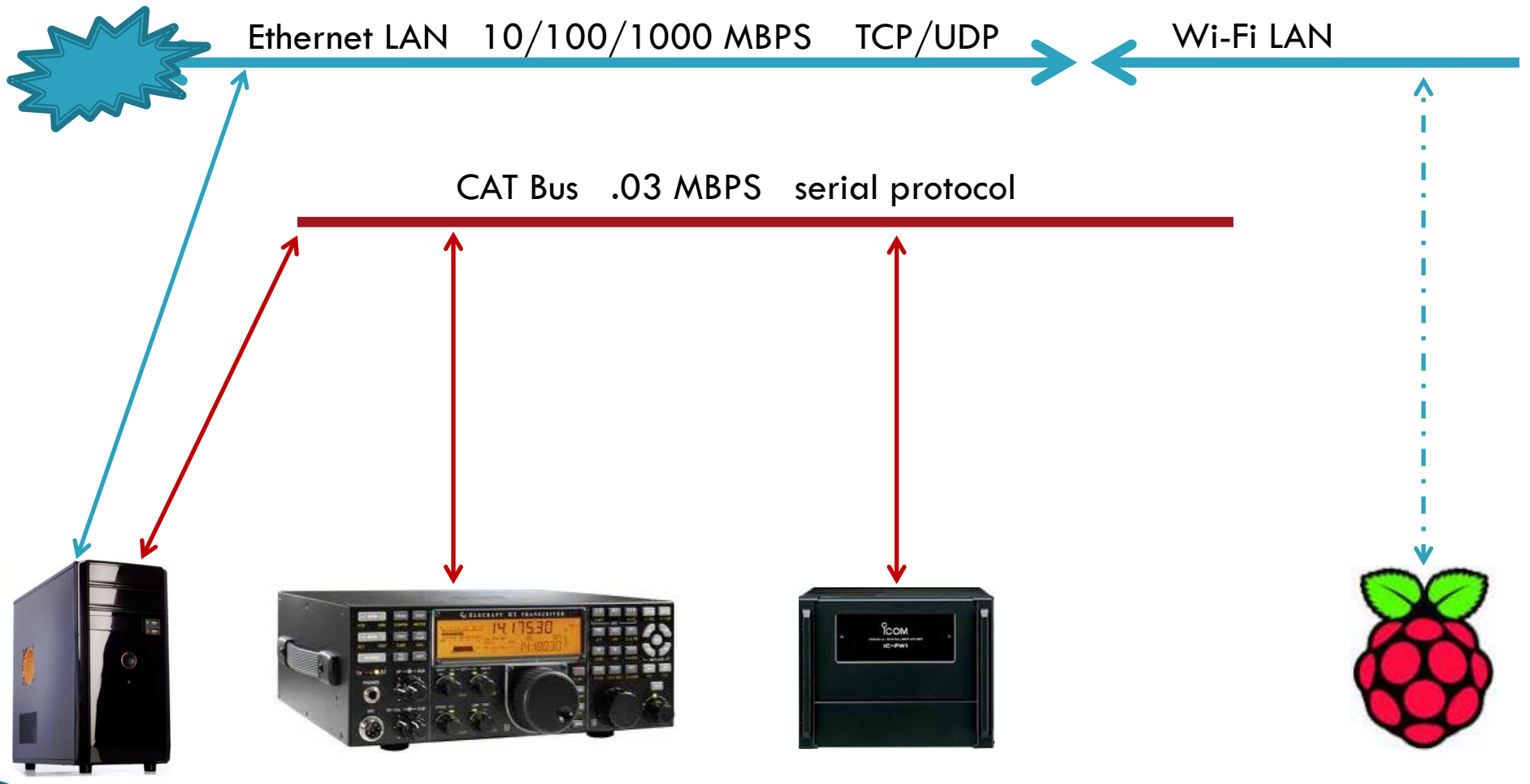
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Wireless Antenna Switch
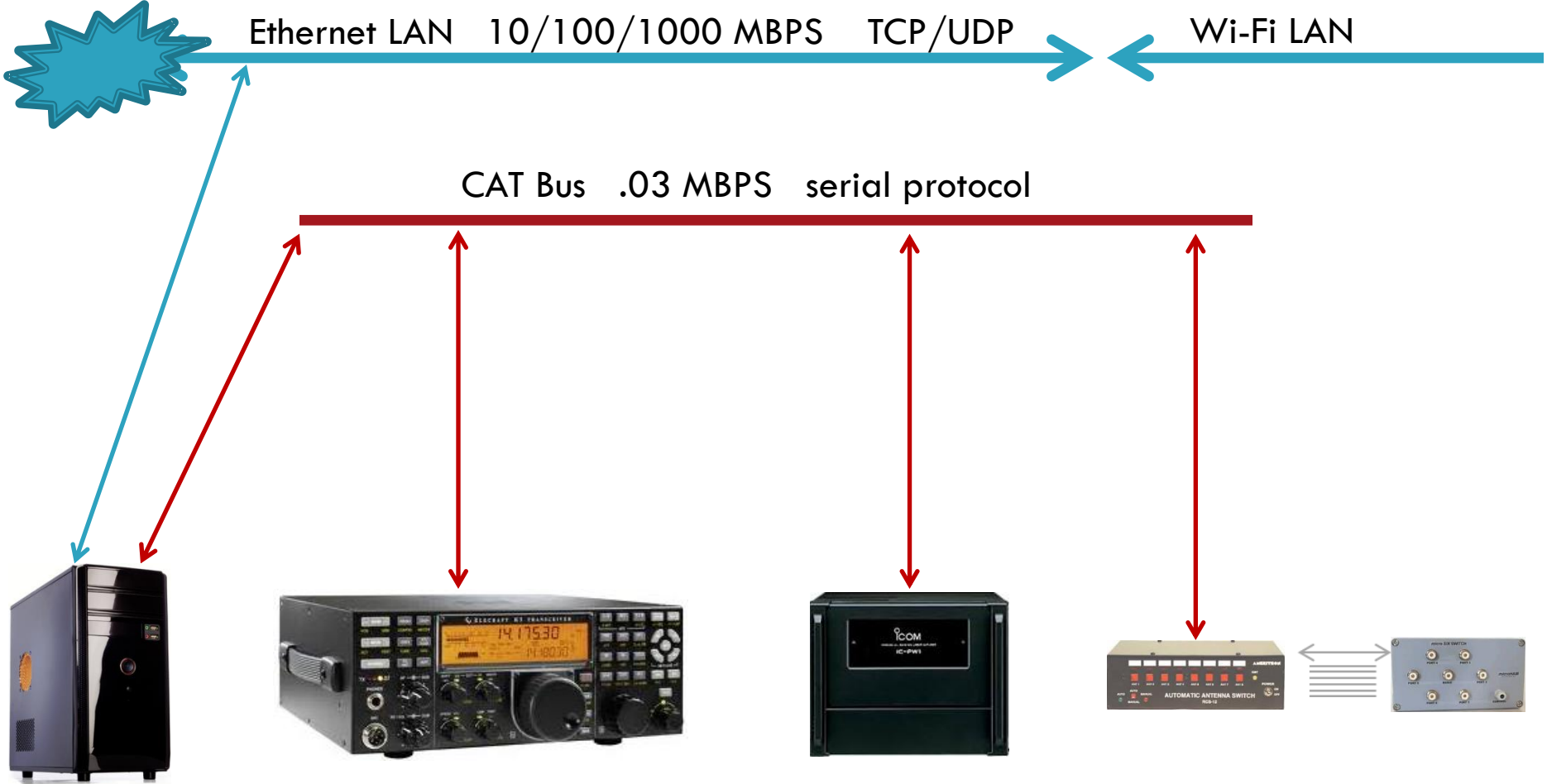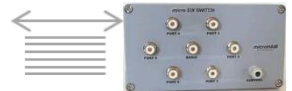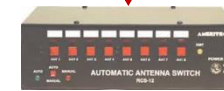
SBC Ham Radio Projects

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- ◦ Typical Ham Shacks
- ◦ Typical Shack Networks
- ◦ My First Four SBC Projects
  - • Wired Band Decoder
  - • Wireless Antenna Switch
  - • **Protocol Translator**

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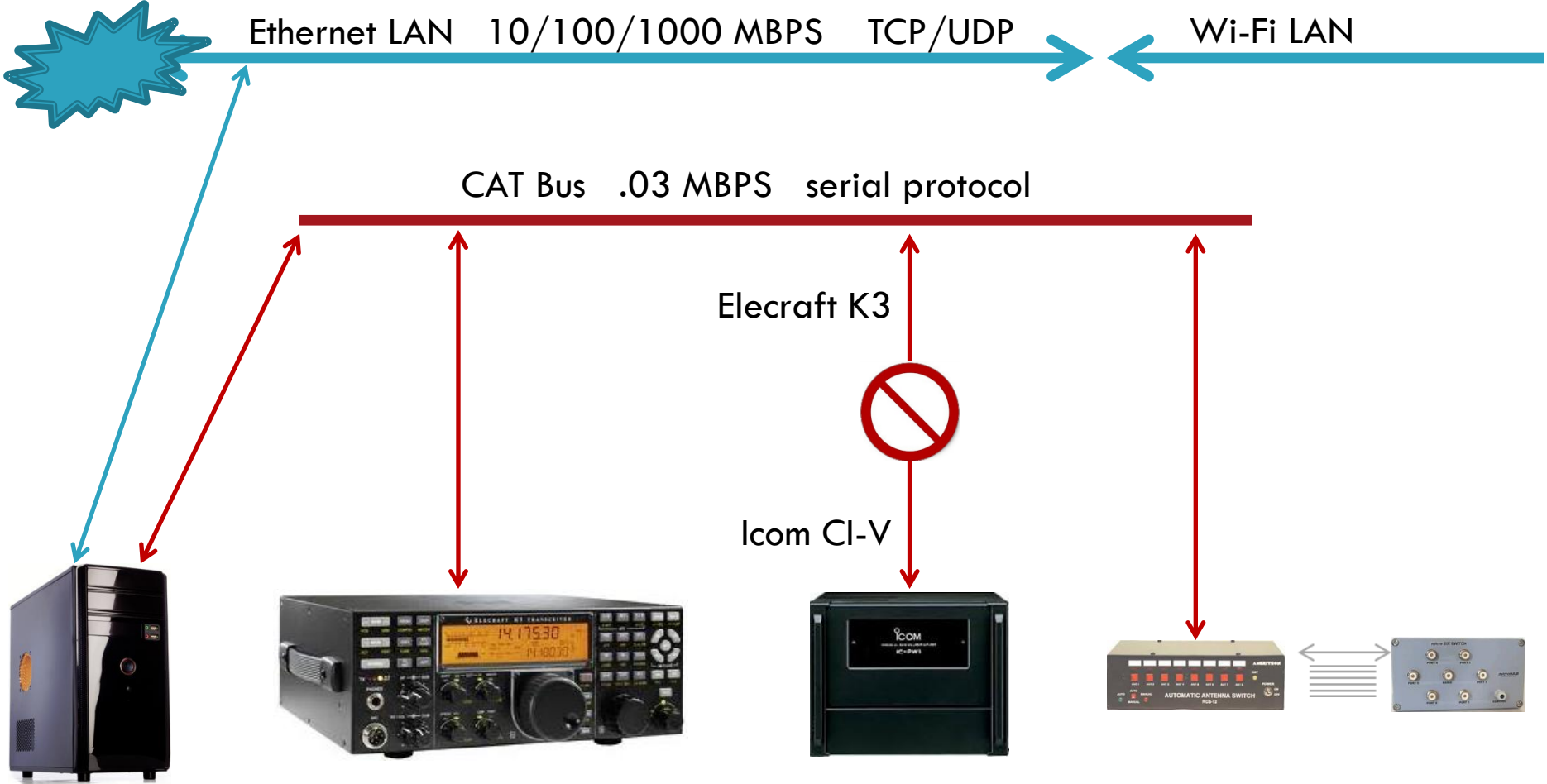
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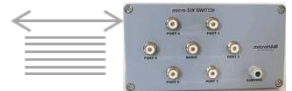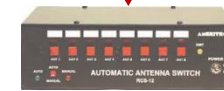
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Elecraft K3

Icom CI-V

Typical Ham Shack

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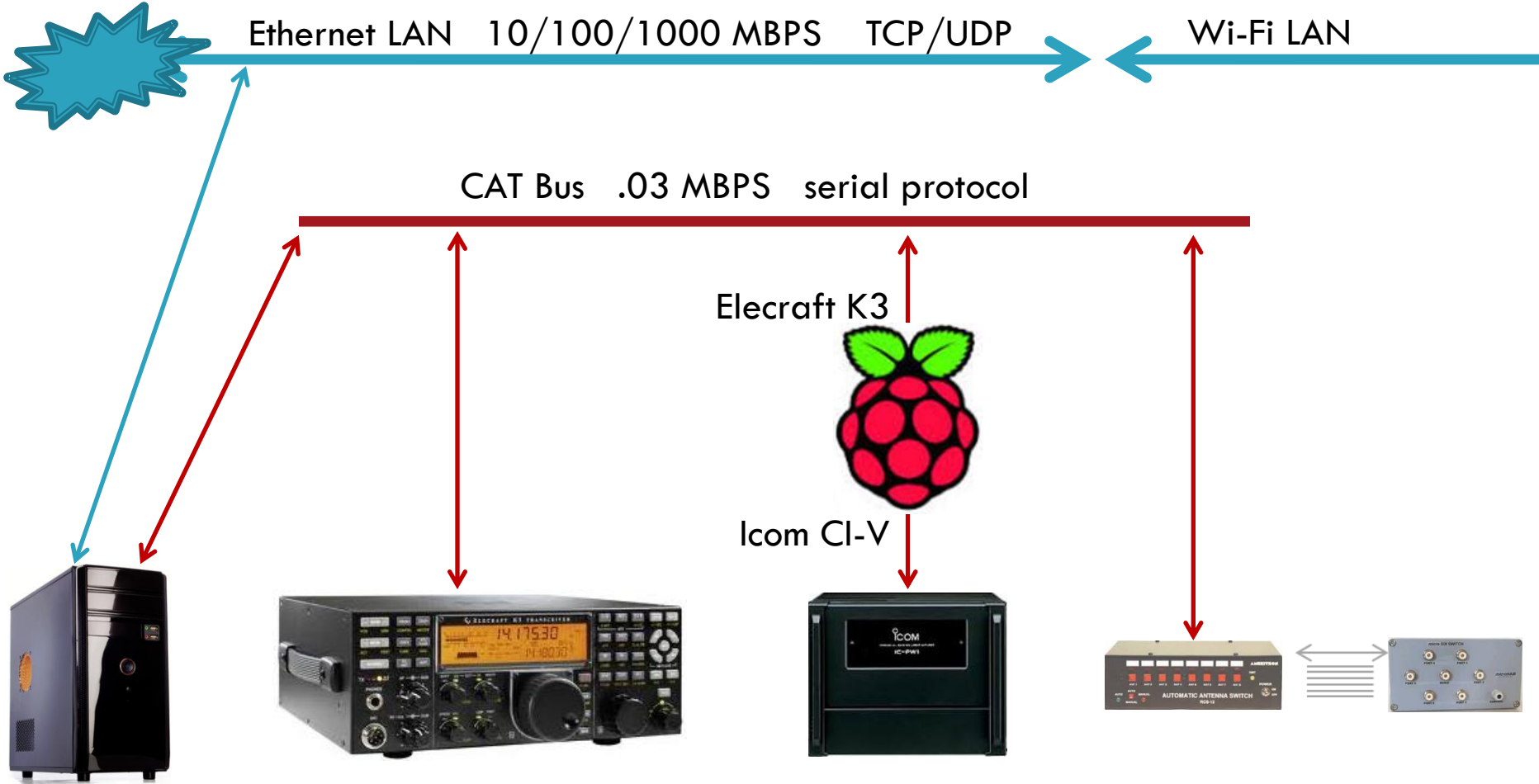
Protocol Translator

SBC Ham Radio Projects

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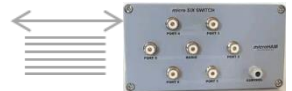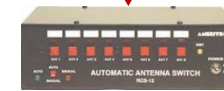   • Wireless Antenna Switch
    • Protocol Translator
    • **CAT Router**

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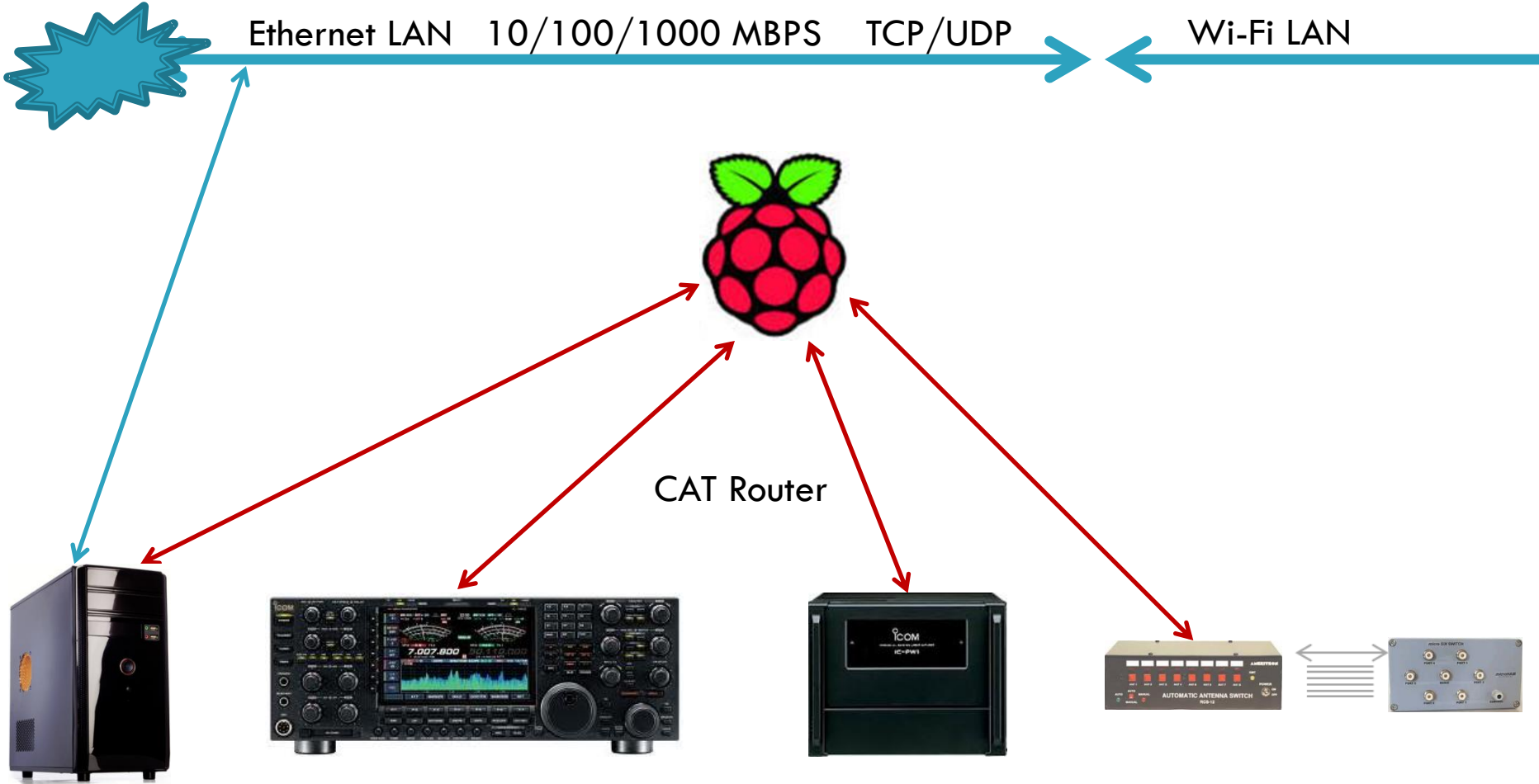
CAT Bus   .03 MBPS   serial protocol

Typical Ham Shack

Ethernet LAN   10/100/1000 MBPS   TCP/UDP   Wi-Fi LAN

CAT Router

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 ◦ My First Four SBC Projects
  ◦ **Editorial**

Editorial

- YMMV - Based on Your Background
  - Initial SBC Purchase: July 10, 2014
- RTFM - Buy At Least One Reference Book
  - I bought three – they cost more than the hardware!
- Don't be Afraid to Experiment
  - What's the worst that can happen?
  - At these prices, the devices are disposable
- GIYF (google is your friend)
  - Copying from one source is Plagiarism
  - Copying from many sources is Research
- Approach your SBC with a Meaningful Project in Mind
- Work with a Buddy

SBC Ham Radio Projects

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  ◦ Typical Ham Shacks
  ◦ Typical Shack Networks
  ◦ My First Four SBC Projects
  ◦ Caveats and Disclaimers
  ◦ **Predictions**

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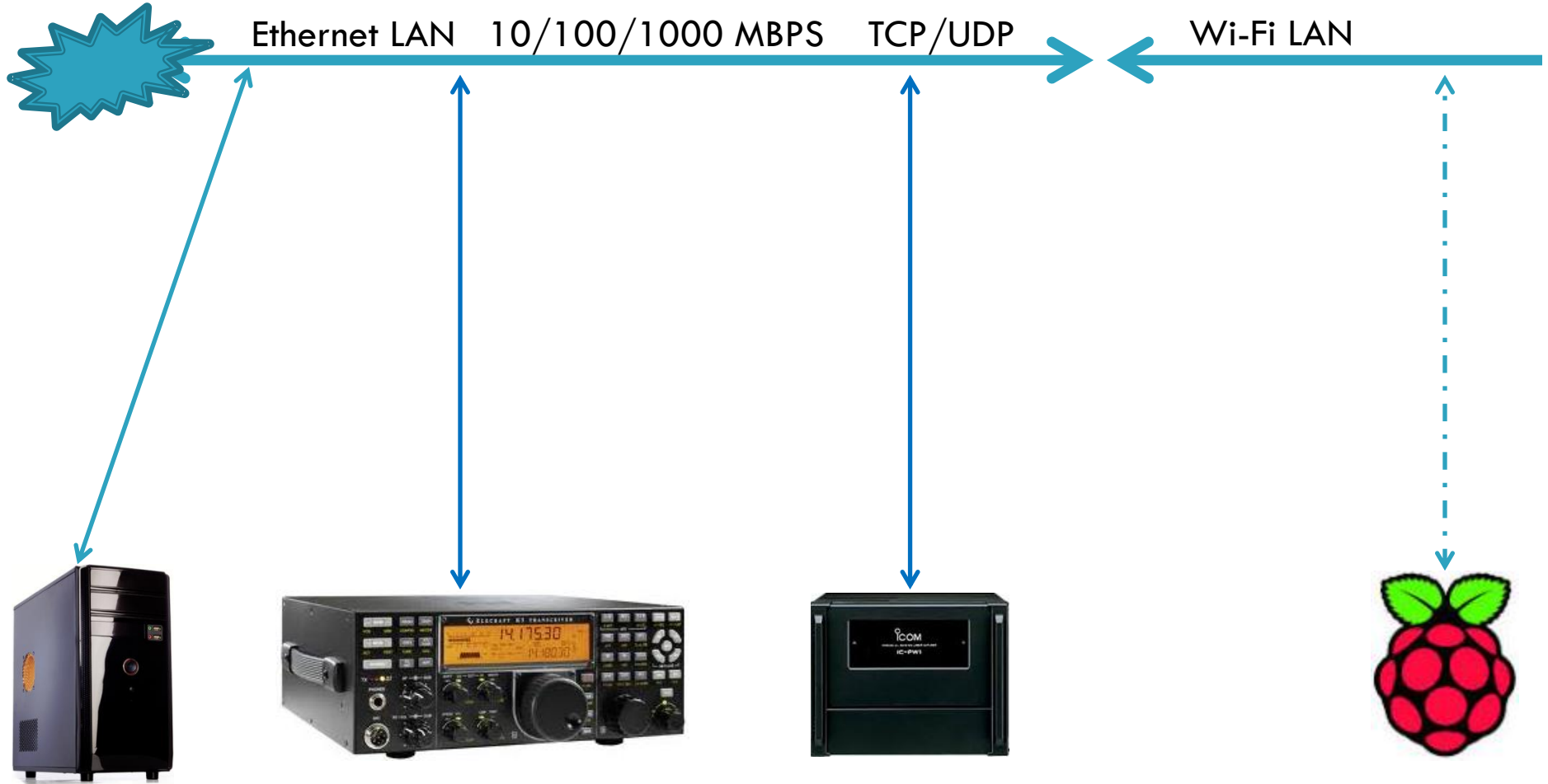
Wireless Antenna Switch

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Thank You!

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