An Intro to AllStar Link

K5VZ - Jim Lavin

What is AllStar Link

A way to link repeaters, single radios and radioless nodes via the Internet using Voice Over IP (VOIP) and the Asterisk PBS software on Linux

AllStarLink has 22,147 users and 19,451 nodes world-wide

Completely Free and Open Source

Provides complete repeater control

Can interface with Echolink, D-Star, C4FM, P25 and other service bridges

Can interface with SIP Phone, Smart Phone or Computer using VOIP
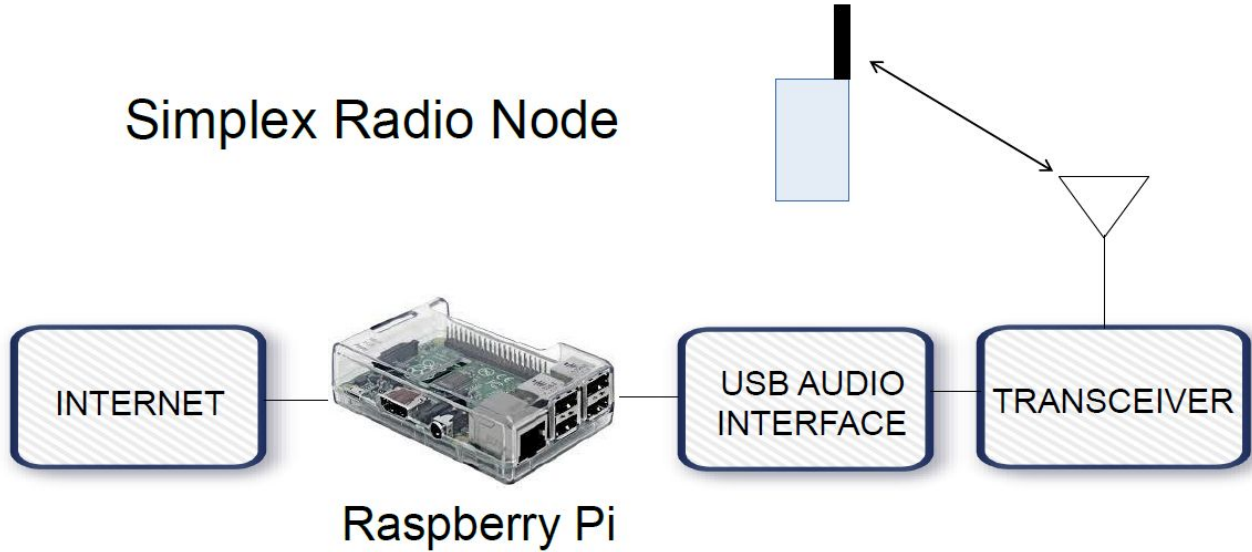
What is Needed for an AllStar Simplex Node

- UHF/VHF Radio
- Radio Audio/Control Interface
- Linux Based Computer running the AllStar software
- Internet connection for linking radios

Simplex Radio Node

INTERNET — Raspberry Pi — USB AUDIO INTERFACE — TRANSCEIVER

ClearNode by Node-Ventures

SHARI by hamprojects.info

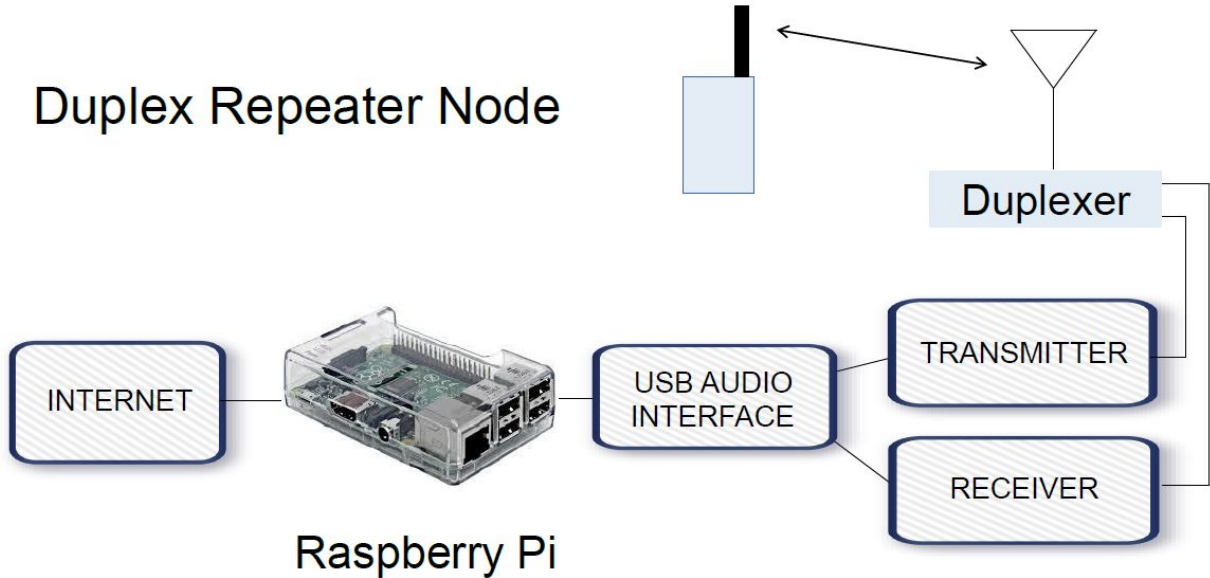# Allstar Radio-Less Node Adapter by Allstarnodes.com

What is Needed for an AllStar Repeater Node

- UHF/VHF Radio for Transmit
- UHF/VHF Radio for Recieve
- Duplexer
- Radio Audio/Control Interface
- Linux Based Computer running the AllStar software
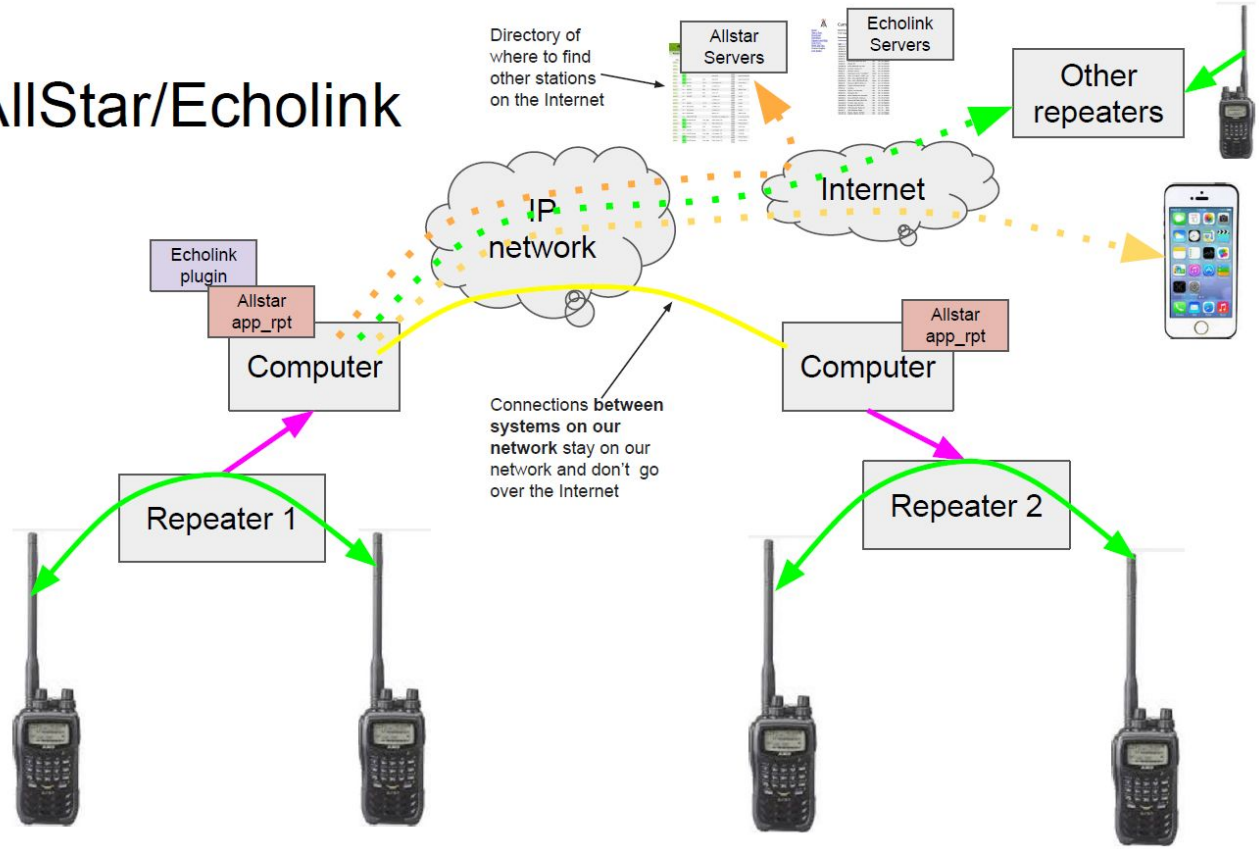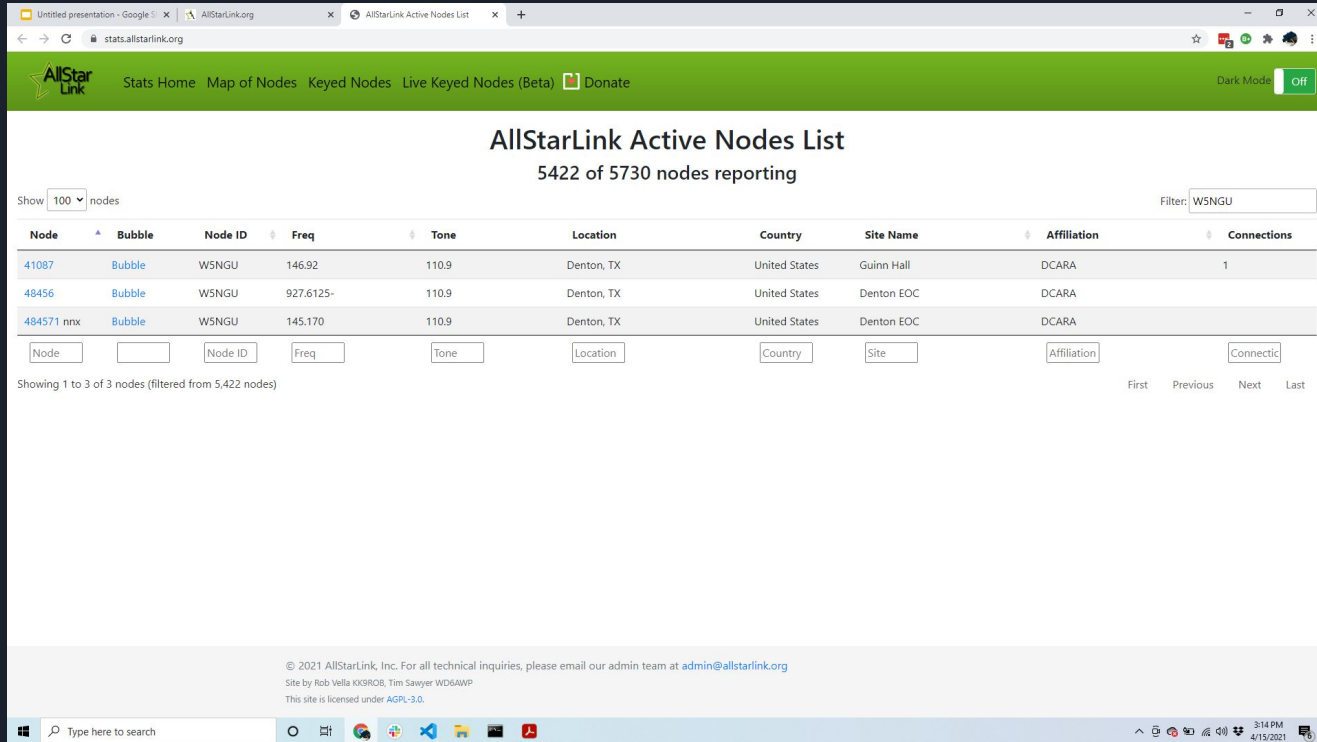- Internet connection for linking radios

Duplex Repeater Node

Duplexer

INTERNET

Raspberry Pi

USB AUDIO INTERFACE

TRANSMITTER

RECEIVER

How AllStar/Echolink work

How to Find a Node Number

User DTMF Commands

Common DTMF commands from a radio through a repeater

- Connect to a node Receive Only: * **2 [node number]**
- Connect to a node Transceive: * **3 [node number]**
- Read back list of what is connected: * **7 0**
- Unlink everything: * **7 1**
- Unlink a specific node: * **1 [node number]**
- Give the time: * **8 1**
- User Specified Commands: ***8, *9, *0, *A, *B, *C, *D**

What Else Can We Do with AllStar?

- Use scripts to download and play ARRL and ARN News
- Since AllStar runs on Linux we can use the User Defined commands to invoke programs on the Server Node which then plays an audio response on the repeater or simplex node.
  - Time of Day
  - Current Weather
  - Club Announcements
- The CRON service can be used to play announcements or configure the repeater based on time of day, day of week or day of month.
  - Using Festival Text to Speech we can have CRON create a voice announcement from a file that will be played on the repeater the day before a NET or as a reminder for a club meeting.
  - CRON can be used to link and unlink repeaters based on a schedule so NETs can be broadcast across a given group of repeaters

Where to Get More Information

https://allstarlink.org

https://hamvoip.org