

## Ham 95B – ASV Issues – Software opportunities

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1. Operating system: GNU Linux  
Programming: C  
Phone PBX: asterisk  
Ham app wrapper: app\_rpt  
Configuration files: etc/asterisk/rpt.conf  
Other major conf: simpleusb.conf, iax.conf, and extensions.conf
2. Native ham wrapper was AllStarLink.
  - a. Developer is SK. It is marginally maintained by guys trying to keep propped up.
  - b. HamVoip is fork about 2016-2018. Much better.
  - c. Major and minor issues they do not want to address.
3. Issue one: no tones when push button.
  - a. Open '11-Run Asterisk CLI client'
  - b. Displays in plain English all keypads deciphered, and tones from repeater.
  - c. rpt.conf generates tone message to send to repeater.

Objective: take 16-keypress tones detected and shown in CLI, translate, output audio tone on speaker  
Need: way to turn on/off, control volume or make much lower than voice.

4. Issue two: private nodes and private network is inherent.
  - a. Private nodes can be set in [nodes] stanza of rpt.conf.
  - b. Private does not use AllStarLink numbers, nodes, or DNS connection
  - c. Process someplace appears to first look for private and connects.
  - d. If no private, then connects to asterisk public nodes.
  - e. Any number of private nodes can be used.
  - f. We use two on our network, each requires a separate IAX port forward.
  - g. Problem needs fixed IP address.
  - h. On our system we use DHCP reservation.

Objective: connect private between nodes of evergreen, for example.

- i. AllStarLink.org has node number, and password.
- j. When a node is first registered, it appears to associate MAC address with that node number.
- k. Then every 9 minutes it does a DNS search. And makes available to the node.

Question: is it reasonably possible to associate a DHCP IP for say Tim so that Chris or Jason node can call without going through AllStarLink.org

5. Larger issue and likely a Fork.
  - a. Linux version is not current. Apparently did not make Asterisk or app\_rpt, not sure which, OS independent.
  - b. So cannot take advantage of new developments.
  - c. Not sure want to take on maintaining a fork.
6. Issue three: would be great to have hooks to use Pi's built in GPIO.
  - a. Then could turn on or sense anything with a Python script.

