

Ham 313 - As3 tools issues

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This is article #13, because stuff happens. If things do not always work the way anticipated, you are now a maker.

First thing, ASL3 comes with prebuilt timing, some of which are not preferred. We are working to recode those and will tell you. For now, after mic press but before tone push, wait a full 2 seconds. Then hold each key for 2-seconds.

DTMF codes are deciphered as text in Asterisk CLI.

Go directly to Asterisk CLI from login prompt. This plays the sounds and error messages when keys are punched.

```
asl@node58nn01:~ $ sudo asterisk -rvvv
```

Alternately go to Asterisk from AllStarLink Main Menu >3-Asterisk CLI.

If mic DTMF keys are not decoding, it is likely one of two issues.

If it is a timing issue, enable PL Filtering in Tune. ASL Main >1-Node settings >Setup menu >1-Update >8-Tune.

If nothing shows, adjust the attenuator on the pot, the RX gain, and RXBoost. If too hi or lo, it will not work.\

Out of the box, the node should connect to other outside nodes.

For other nodes to connect into yours, set your router to allow incoming Ports with the IAX set by you in AllStarLink.

If DTMF keys are decoding but not activating, it can be several connection issues.

Check if registered at AllStarLink.org node. The node should be yes.

Check Router Firewall and security.

Check ASL Firewall for IAX Port.

DTMF not connecting, but registered.

Power supply may not be clean or may be too small for the size Pi.

Check if node is on live nodes page of AllStarLink.

Update nodelist. List is in /var/lib/asterisk/rpt_extnodes

It now updates every 60 seconds on asl3-update-nodelist.timer, so this should not be issue.

BTC Calix router blocks outgoing connection to AllStarLink.org. Tech service is necessary or have them replace with old-style black notebook shape router.

Some nodes will not connect using the newer ASL3 HTTP registration. It is necessary to revert to legacy iax.conf.

Besides the mic key, there is more than one way to dial a node. Use the terminal keyboard to connect nodes.

DTMF command is *3.

From the asterisk cli prompt	From Linux root prompt	where
rpt fun 1999 *32000	asterisk -rx "rpt fun 1999 *32000"	1999 is command node number
rpt cmd 1999 ilink 3 2000	asterisk -rx "rpt cmd 1999 ilink 3 2000"	2000 is connect to node number

Another way is to use a macro to connect. Set up the macro in rpt.conf. Then punch *51 to make this preset dial.

```
[macro]
; Macro number
1= *3584801# ;MOD connect (*3) to 584801, macro code *51
```

Several new commands are available at CLI to analyze what's up.

"rpt show registrations" is equivalent to AllStarLink.org see registration

"rpt show variables nnnnn" lists all variables shared between asterisks and ASL3.

"rpt lookup nnnn" gives the IP address

A log of connection status is at /var/log/asterisk/messages.log.

Change hostname with sudo nano /etc/hostname.

Since Asterisk is a telephone system, numerous sounds are prebuilt. Sounds are located at /usr/share/asterisk/sounds/.

Sounds specific to ASL3 are /usr/share/asterisk/sounds/en/rpt/.

These are available to make custom messages rather than just a beep or tone.

The sounds can be played multiple ways. These are called in rpt.conf. They can be in the [function], [macro], or [timer] stanza and from the Asterisk CLI or Bash prompt.

```
[function]
84=localplay,/usr/share/asterisk/sounds/en/rpt/file ; in function, so call with
*84. Do not include the file extension.
```

More complex arrangements use a file, including Bash, Python, C.

```
#! /bin/bash
/usr/sbin/asterisk -rx "rpt localplay NNNNN file-n-extension" ;include ext.
```

Life is good. Enjoy.

