Distinctive Courtesy Tones

The hamvoip.org Allstar V1.5 code now includes distinctive courtesy tones based on the incoming node number. Users can define specific tones and map them to node numbers. When a node with that number is directly connected to your node the mapped courtesy tone will play on unkey.

This is particularly useful on a multi-node connected hub or repeater to identify the source of a keyup on the channel. Multi-site systems can simply identify what node is incoming by its distinct unkey courtesy tone. If a user generally only connects to one specific node you can give it a distinct tone and if you hear the default tone instead you will know someone else has connected to your node.

While this is useful in multi-connect situations the Allstar status system currently only nests one deep. That is if node A is connected to node B and node B is connected to node C. When node A keys node C sees it as coming from node B. Likewise if node C keys node A also sees it as coming from node B. So if you are connected to a hub which has many others connected you will only see the hub keyup regardless of who it is. In this case the distinctive courtesy tone would not be as useful.

Implementing the distinct courtesy tone is easy. First make sure you have the latest hamvoip.org V1.5 Raspberry Pi update. Use item 1 on the ADMIN menu to update. Then make the following changes in the /etc/asterisk/rpt.conf file.

Each defined node on your server has a courtesy tone mapping section in your /etc/asterisk/rpt.conf file. To initiate the distinct courtesy tones you add the line -

linkunkeyct=by_node_number,ct8

This tells Allstar to do a lookup on unkey using the courtesy tone mapping. The second parameter is the default courtesy tone if no corresponding node is found. ct8 happens to be the tone used by default in Allstar and what you are use to hearing. You can define any other tone you desire as default. If you leave the default value off it assumes the tone sequence assigned to **remotemon**.

To complete the mapping you need to assign a specific node number or numbers to a corresponding tone definition. Here is an example:

node40000=ct12

ct12 does not exist in the current definition so it must be defined down in the telemetry stanza of rpt.conf. Here is an example of defining a Morse CW "K" as the courtesy tone for node 40000

ct12=|iK

multiple node definitions can be made either pointing at the same or different courtesy tones.

So in this case courtesy tone ct12 would be used for node 40000 and ct8 for all other nodes.

Here is an example of what the mapping would look like for multiple nodes -

; Courtesy tone mapping

unlinkedct=ct2
                  ; Sent when not connected to another node
remotect=ct3
                  ; Sent when remote base connected
linkunkeyct=by_node_number ,ct8
                  ; sent when a network user unkeys
                  ; if set to by_node_number mapping to node number occurs
                  ; by_node_number,<default ct>
node40000=ct12
                  ; Map node 40000 to ct12
node40001=ct13
                  ; Map node 40001 to ct13
node40002=ct14
                  ; Map node 40000 to ct14
node40003=ct15
                  ; Map node 40003 to ct15
node40004=ct15
                  ; Map node 40004 to ct15

This examples shows node 40000 would be courtesy tone ct12, 40001 would be ct13, 40002 would be ct14, and both 40003 and 40004 would be ct15. Any other node would be ct8, the tone defined as default. You can use either existing tone definitions or define your own. It is very flexible. Courtesy tones can be defined as tone sequences, CW characters, or even a sound file but obviously do not make it too long.

You can have multiple telemetry sections in rpt.conf using the telemetry= parameter in the node definition stanzas. For instance in node 40000:

telemetry=telemetry40000

and in node 40001

telemetry=telemetry40001

Then your could have two telemetry stanzas – [telemetry40000] and [telemetry40001] with separate telemetry tones defined for each node. Generally this is not a necessity as in most cases one definition will serve multiple nodes well.

For more info on defining courtesy tones see the courtesy tone howto on the hamvoip.org web page -

https://www.hamvoip.org/courtesy_tone_howto.pdf