Gateway SIP Dialling

This quick reference user guide has been devised to act as a basic configuration instruction to enable Gateway SIP connectivity and panel SIP Dialling:

EHX/Matrix

With a frame containing an MVX card(Pico's can select Tel 14 as a port option on ports 17-32), set your chosen port to be allocated as a Tel-14. On the global options section of the tab set 'Hardware Detection' to off by unchecking the box.

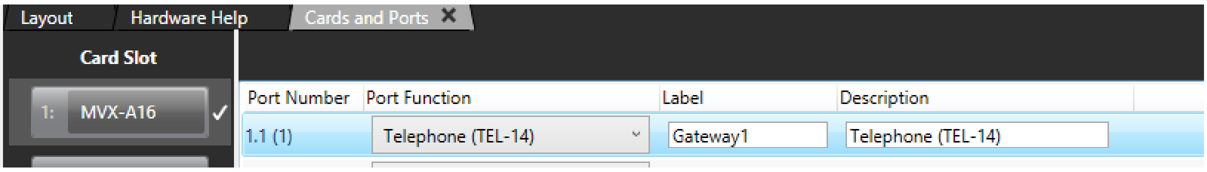

Fig 1 – MVX port allocated as Tel-14

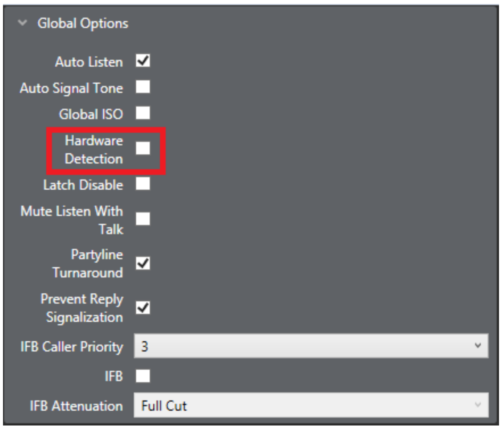

Fig 2 – Tel-14 Global Options, Hardware detection 'unchecked'

Once this is done place a key onto a panel with a keypad and apply changes(without reset). The method for dialling from the panel face will be explained later in the document. From the MVX rear card we now run a CAT5 cable from the Tel-14 port to the physical Gateway device.

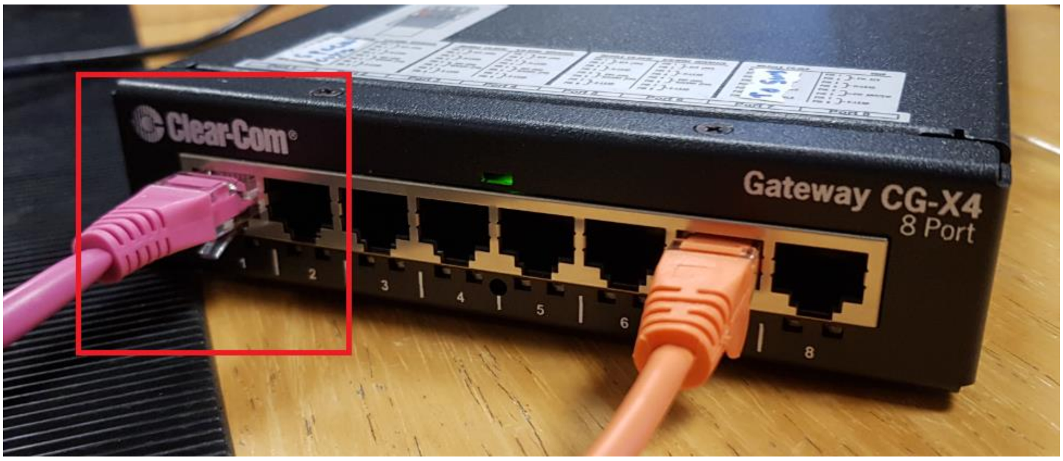

Fig 3 – MVX CAT5 connection to Gateway; these connections must match with how the Gateway ports have been configured ie: MVX Tel-14 port 1 to Gateway port 1 etc . .

Gateway Web Browser configuration

We need to first make sure that we can gain access to our Gateway unit via IP, this done by connecting via a switch or directly to port seven on the Gateway itself. The default Gateway IP address is 10.1.1.253. For this guide the IP address has been changed to 192.168.42.23.

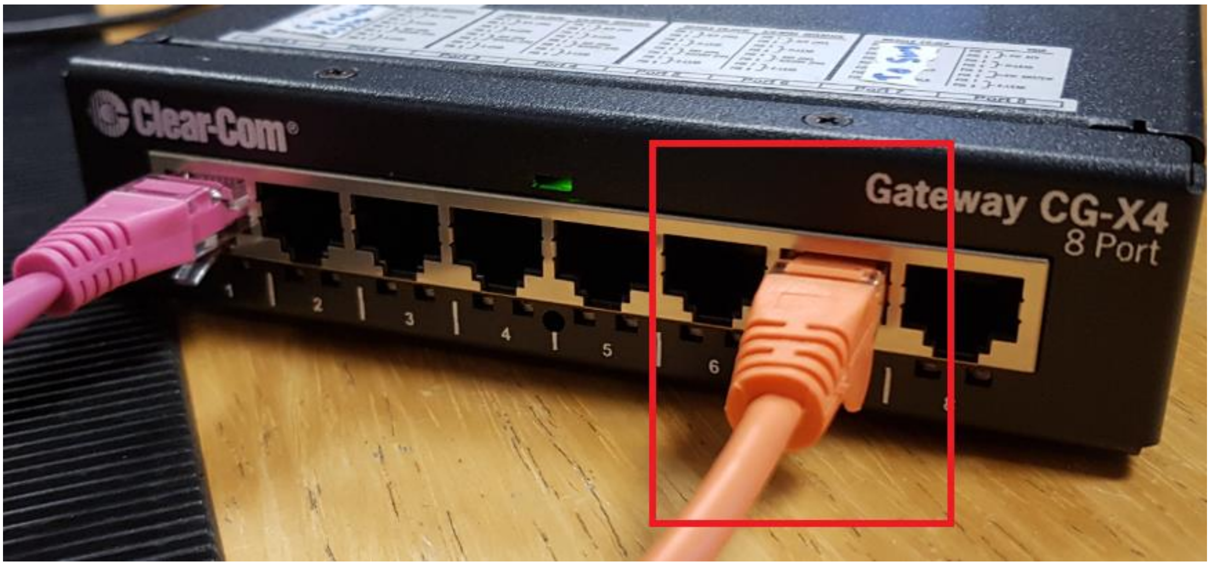

Fig 4 – Gateway IP connection to either a switch or direct to a PC

In addition to the IP connection to the Gateway you also need to be able to connect to the Gateway via the USB connection on the rear of the unit. This is so we can connect directly to the unit utilising the Gateway software:

Fig – 5 Gateway rear USB PC connection for software access

We begin by connecting to the unit via the web browser. This is done by opening a web browser of your choice and entering the units IP address, it will then prompt you for a username and password; these will be set to default username: admin, password: admin if they have not been changed.

You will be greeted with the VOIP status screen:

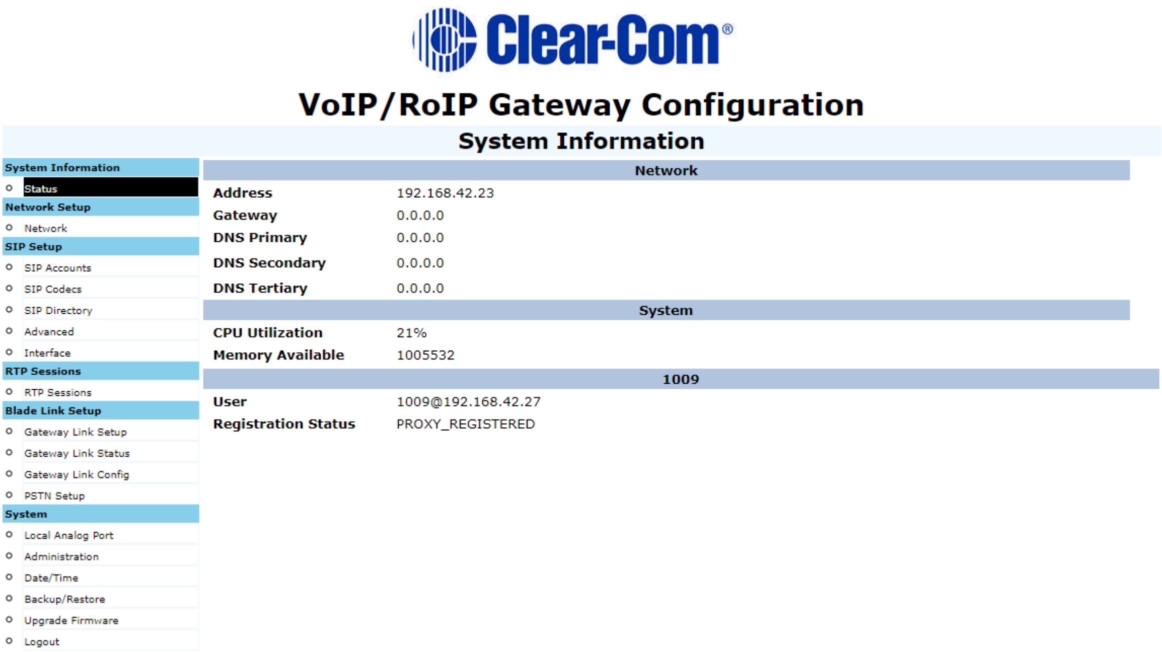

Fig – 6 Gateway VOIP status screen

The network tab is where we can alter the IP address and other parameters of the Gateway unit.

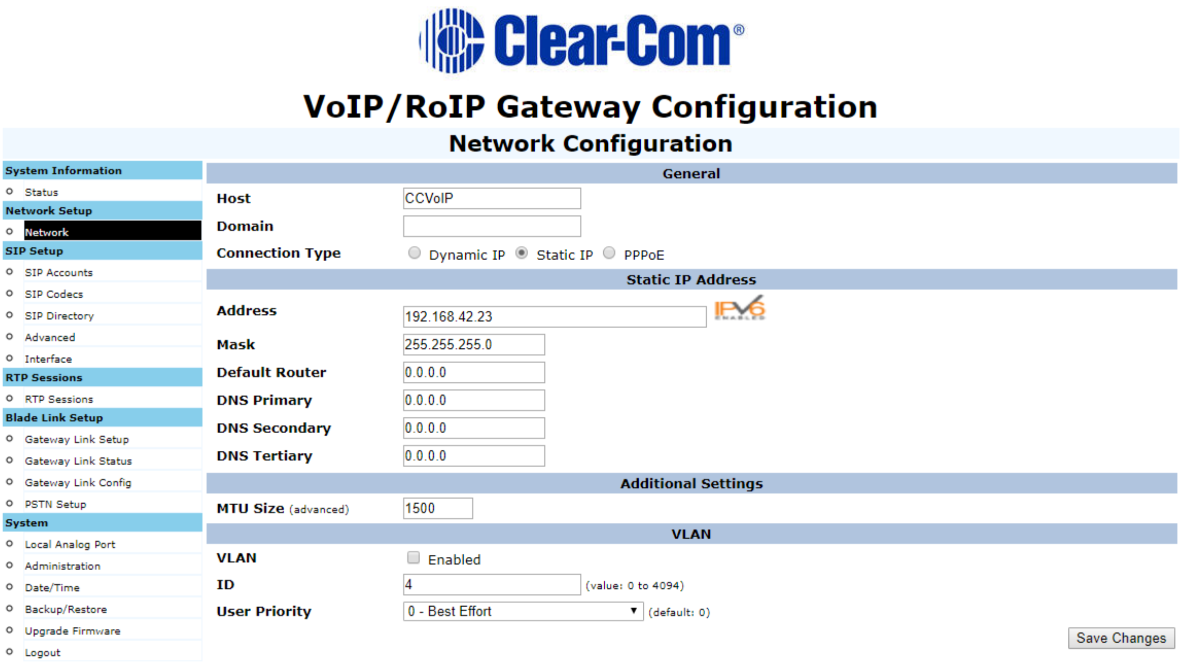

Fig 7 – Gateway Network tab

SIP Accounts is where we configure each port on the Gateway and how we want it to Perform its functions. In this example we have assigned a phone number and set the IP address of the SIP server, in this guides example the SIP server IP address is set to 192.168.42.27.

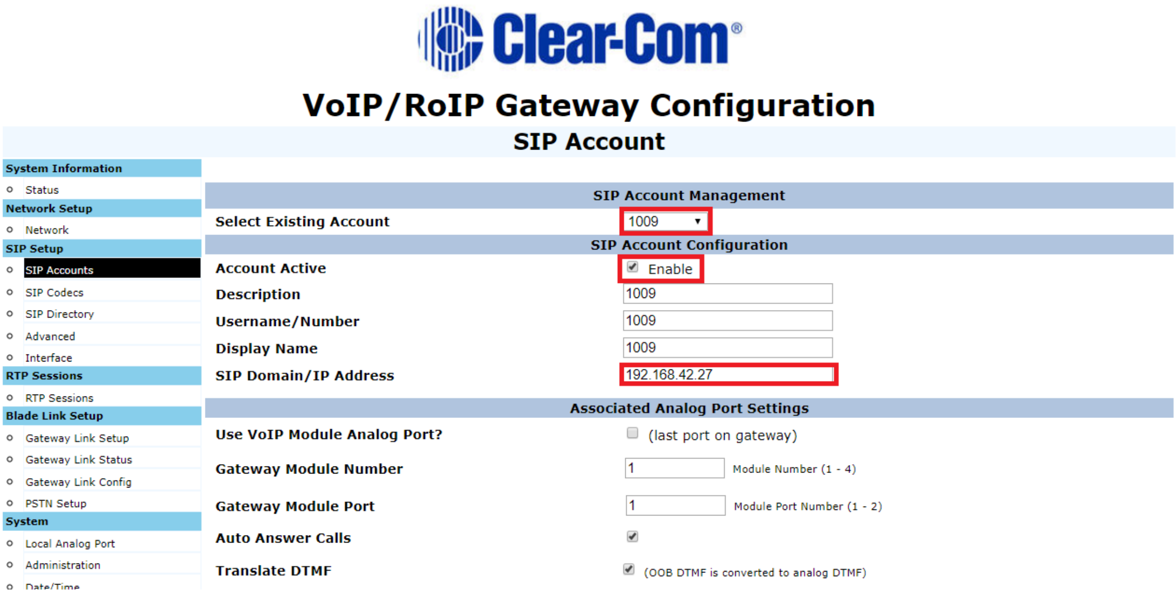

Fig 8 - SIP Account tab

Scrolling further down the SIP Account tab make sure that the Keying type is set to 'voice activated', and that the Key Radio DTMF address and Clear DTMF buffer as set as they are below. Also make sure to set the proxy settings as the SIP server address and also make sure that whatever username and password you set here will match what we will configure on the SIP server later in the guide. When these changes are complete click 'Save Changes' at the bottom of the page.

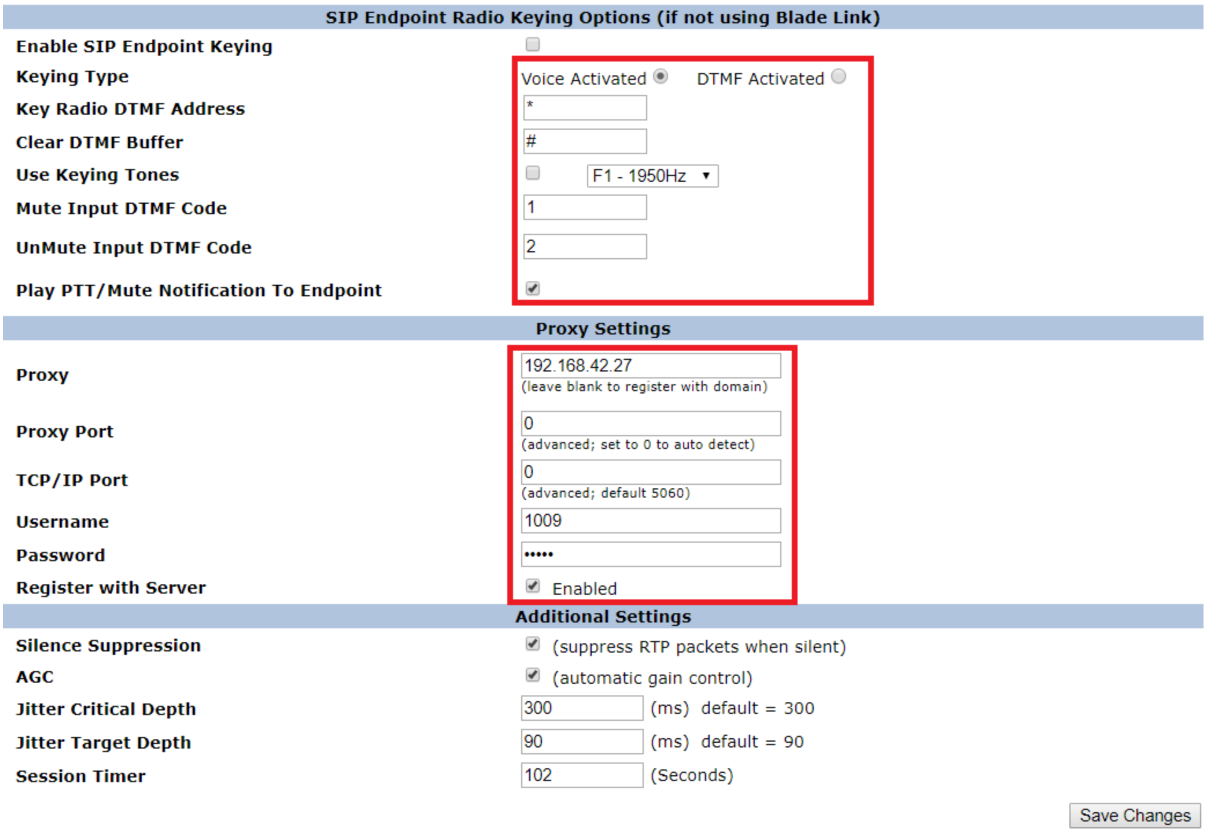

Fig 9 – SIP Account page bottom

Next we move onto the SIP Codec page, on this page please make sure that the correct codecs are allocated properly. The matrix can utilise codec G711, so select as shown below:

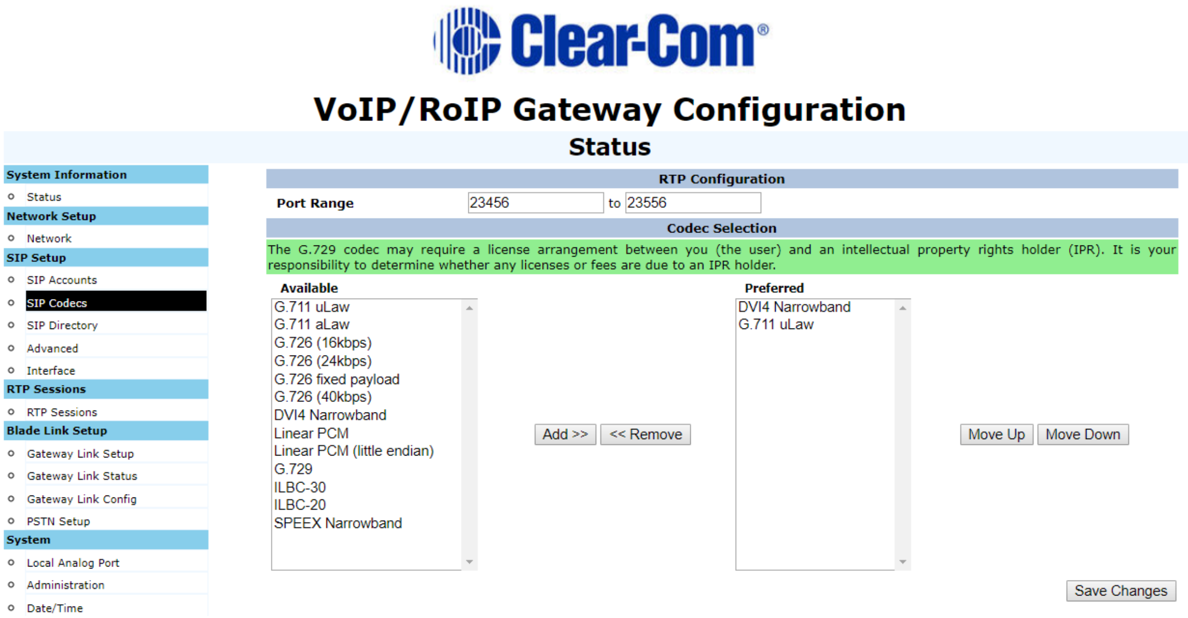

Fig 10 – Codec selection

Once the codec has been selected make sure you again click 'Save Changes' and proceed onto SIP directory.

Set the SIP Directory settings as below including the Enable Phone directory.

On the SIP Directory tab set the number you wish to dial and then the URI on the right. This will include the number and the SIP server address:

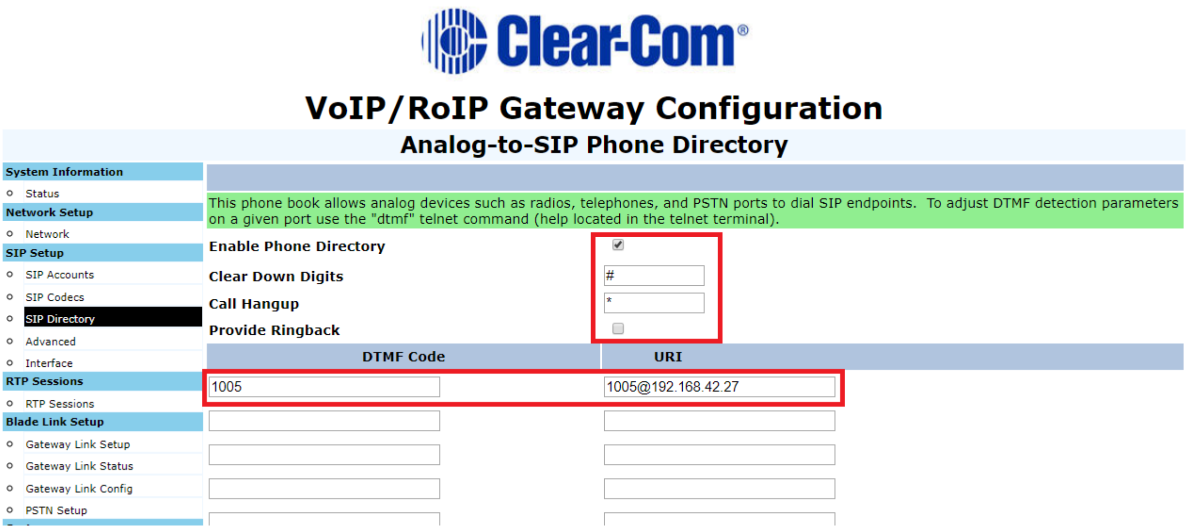

Fig 11 – SIP Directory

Once the changes made in the directory have been saved, the user now needs to configure the Gateway via the software on the PC through the USB connection.

Gateway Software Configuration

Once you have installed the Gateway software you can connect to the unit using the USB cable. Once this connection is in place you can open the software and click ‘connect to device’. Once connected the user should see the following:

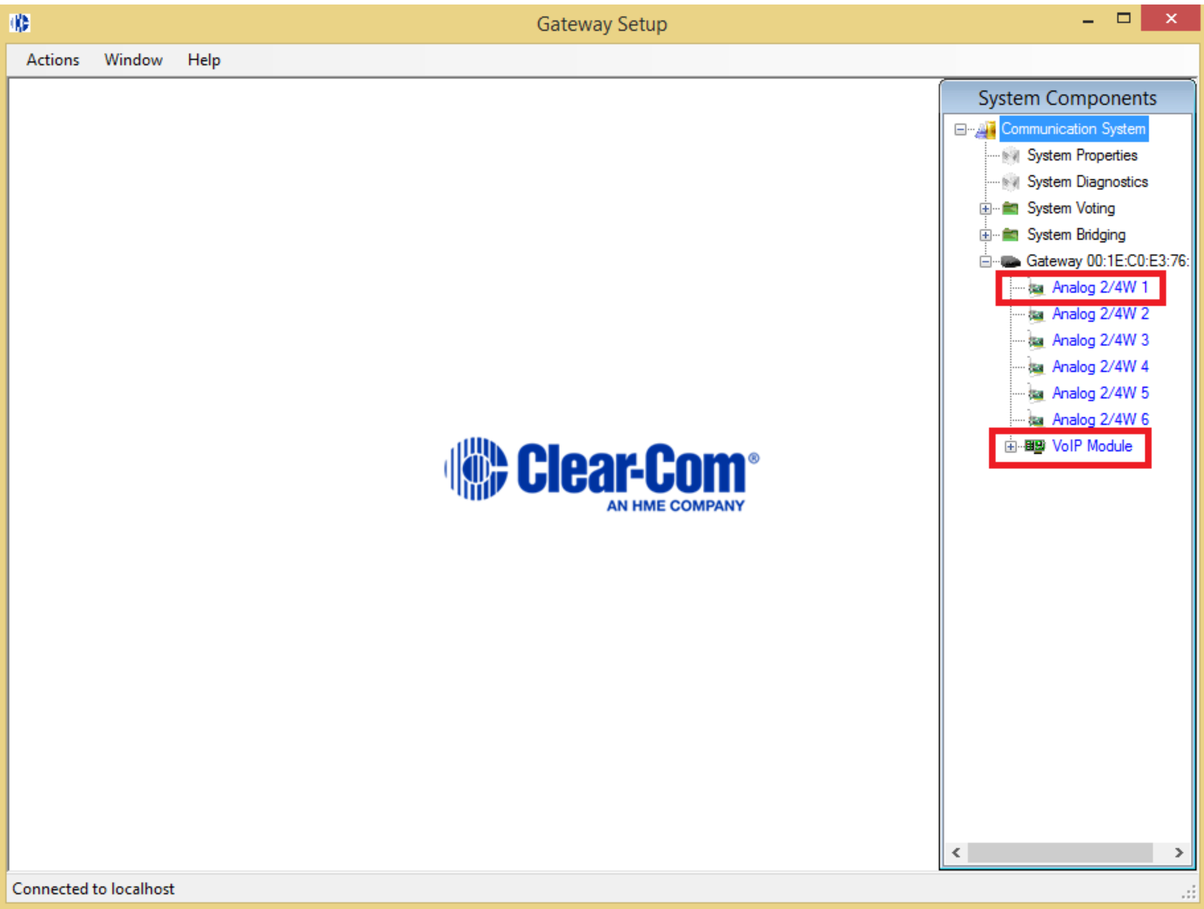

Fig 12 – Gateway software main screen

The user is primarily interested in the first analogue 2/4W port. By clicking on this first port a further port menu will open. On this menu the user is looking to configure the DTMF functionality of the port. A smaller box should appear, in this click on the ‘settings’ button:

Fig 13 – Analogue Port menu

A larger settings menu box should appear and in this select ‘enable DTMF Detector’ and then enter the Advanced menu by clicking on Advanced -

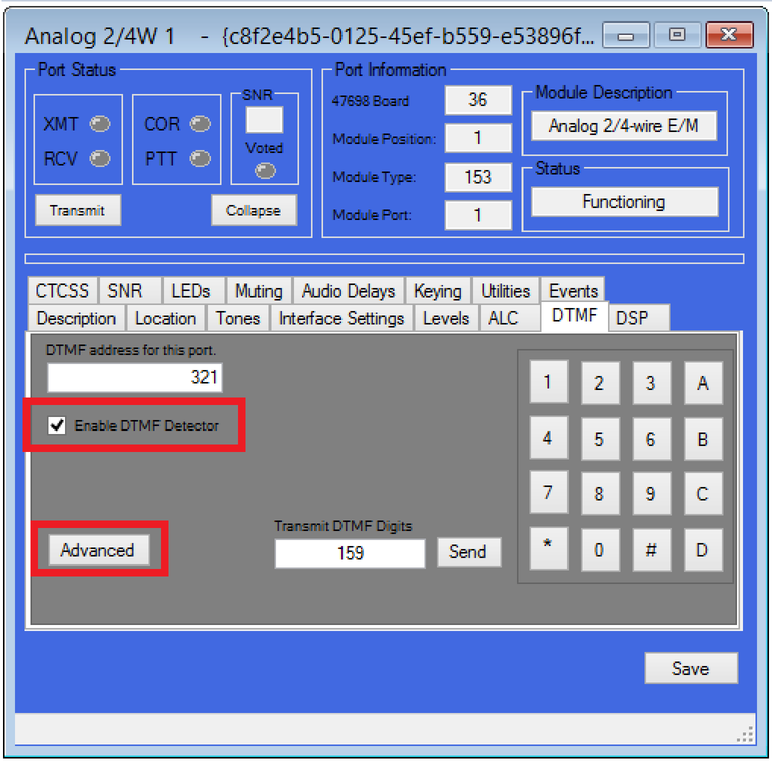

Fig 14 – Analogue port Settings menu

Once in the advanced menu, select ‘DTMF Detection to Extended’ and click ‘Done’

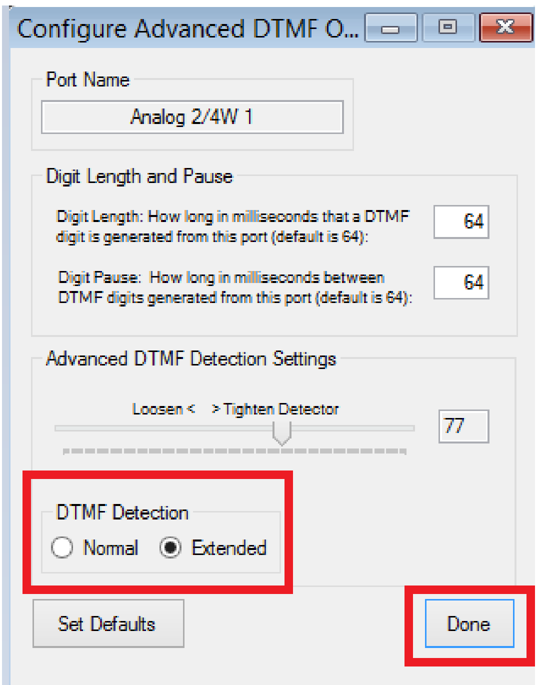

Fig 15 – Advanced Analogue settings tab

Gateway configuration is complete, we move onto the SIP server setup followed by a walkthrough of how to enable Panel dialling.

SIP Server

SIP servers of course vary from manufacturer to manufacturer but the core principles remain the same throughout.

The user will need to create accounts for each port of the Gateway device on the SIP server. So each port will be assigned a phone number and each port will require the Gateway units IP address.

This is of course where the users phones will also be connected, and for the purposes of this guide we have placed 2 x SIP phones on the server with numbers 1004 and 1005.

Dialling from the V-Series Panel

1. First press the number 1 key on the keypad, this starts the DTMF process at the panel face.
2. Press # to clear down any remaining digits from a previous call
3. Dial the number required, in this example we dial 1005
4. Press the Gateway Key on the panel to open the port
5. Wait for the dialling process to complete

Fig 16 – Successful dialling image