What is Allstar?

- Allstar is a mode of communications that can utilise Internet and/or Radio Frequency

- It is similar to DMR, Dstar, Echolink and IRLP in as much as part of the communications is digital and transmitted over the Internet.

- Like the other Digital modes, communications are conducted via Chat Rooms, Talk Groups, Conference Nodes, Reflectors and Nodes

Network Management

- Allstar is managed by Allstar Link. (http://www.allstarlink.org/)

- It provides the facilities for the Registration, issuing of Node Numbers and a Dashboard showing the status of Allstar communication

- To register you must upload your evidence of being an Amateur Radio Operator

- This may include a copy of your AOCP, your ACMA Certificate or your Letter of Confirmation from ACMA

- The evidence must include your Qualification and Callsign

Network Management

- After uploading the evidence, Allstar Link will check your eligibility and if accepted they will send an Acceptance email with Login details

- You do not need to setup a Node to get started, all you require is a Allstar Link Login Username and Password

- If you do intend to set up a Node, then go to your Portal and request a Node Number

Using Allstar

- Once you have your Username/Password you can use them to register your Phone App

- Iphone uses an App called Repeater Phone ($7.99)

- Android uses an App called DVSwitch Mobile (Free)

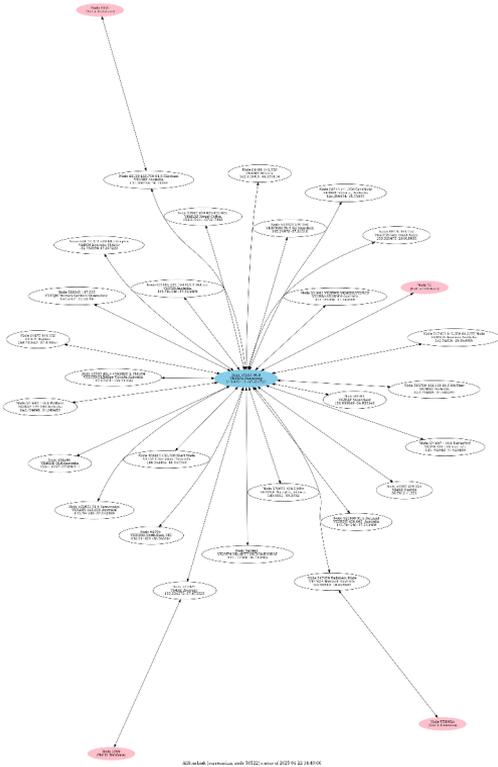- You can use either App to connect to Nodes and start communicating.

Benefits of Using Allstar

- It can allow a person who for some reason does not have access to a radio (hospital, aged care, apartment living etc.) to access local and remote repeaters

- It can allow a person who may be in an area that has no Repeater coverage to communicate with others using their phone

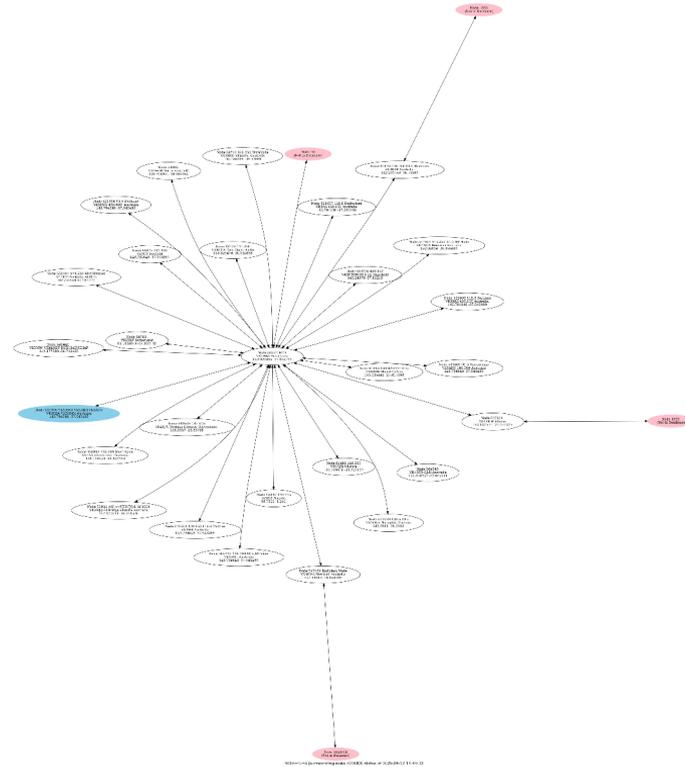- It can allow a person to communicate both locally, nationally and Internationally

Repeater Linking

- Once a Node has been connected to a Local Repeater via a RF Link (TM8200) that Node can then be connected to one or many other Nodes that are connected to other remote Repeaters

- This provides a Coverage of large proportions that can be controlled and increased or decreased by the owner of the Node.

- VK3, VK4, VK6 currently have many repeaters connected to each other via Allstar Nodes

What is an Allstar Node?

- A Node is normally a Linux Server and can be a full computer or a Single Board Computer such as a Raspberry Pi

- Ideally it should have some form of Sound Card if it is going to be used as a Hub or as a Headless Node

Node Requirements

- Once you have registered with Allstar Link and requested a Node Number you can operate via Phone Apps, Headless or RF modes

- Headless requires no hardware other than a Linux Server (Computer or Raspberry Pi)

- RF Mode requires some form of Soundcard Interface and a TX/RX unit. (Shari, AOIB, Baofeng or Mobile Radio etc.)

Headless Node

- A Headless Node has no interface to any RF Receiver/Transmitter and exists purely on the Server as a "Hub" allowing persons to connect to it

- A person can also use the Sound Card existing in the Computer to talk and receive communications as if it was a radio
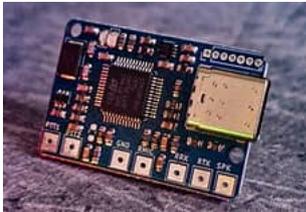
RF Node

- There are a number of RF Interfaces that can be purchased as "Plug In" units via the USB Ports

- The "Shari" unit is a popular and inexpensive choice and utilises the SA818 Chipset for either VHF or UHF Bands. You must decide which when ordering.

- It outputs approximately 1W of RF Power

- Another option is the AIOB or AIOC interfaces which can be used to connect directly to a radio (Handheld or Mobile/Desktop)

- These are inexpensive and require little soldering to get working.

- The advantage of these is that they can be used to directly control a mobile radio (TM8200/25W) which can be programmed to either local Repeaters or Simplex Frequencies thus extending the range far exceeding the 1W Shari interface.

Hardware

- The simplest and least expensive set up is to use a Raspberry Pi.

- The Pi3B+ or later versions are preferred.

- A 32GB SD Card is recommended

- A Power Supply of 5V/2.5A is usually enough to power the Pi and RF Interfaces.

Software

- There are many YouTube Videos on how to program a Computer or a Raspberry Pi as an Allstar Node.

- It is quite simple and only takes about 30 minutes.

- There are a number of CRARC Members who can assist

- If there is enough demand then we may make it a Technight Project.

QUESTIONS?