Digital Hotspots
May 9th, 2023 Program

KC9SEB – Paul Mitchell
director3@frrl.org

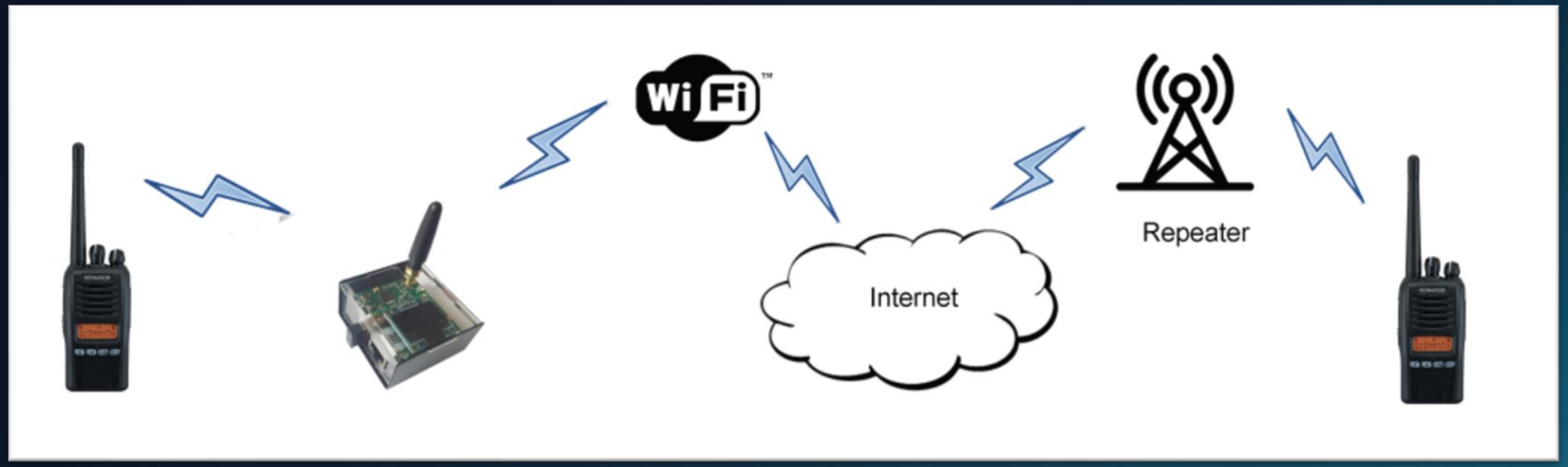
What is a Digital Hotspot?

- A hotspot, simply put, is your internet gateway to a particular Digital network.
- Not really RF (end to end)
- A Hotspot acts as an RF gateway to send your local RF signals across the Internet to a remote network, to link into talkgroup and reflectors of various technologies
- Many hotspots are capable of multiple modes as well, such as D-Star, P25, DMR+, YSF and NXDN…
- Where to use
  - Linked to your home network
  - Linked to your cellphone’s wireless hotspot

Why Hotspots?

- Is your HT out of range or have no local repeater?
- Multiple modes supported or needed?
  - DMR, YSF, D-Star, NXDN, P25, and (newer M17)
- Cross mode support
  - Like DMR to YSF, or vice-versa
- If Repeater doesn’t offer your preferred TalkGroups or Reflectors
- If Repeater is not linked to the Internet
- Mobile, Portable, or Remote
- Or are the band conditions just BAD?? ☺

Is it RF? Kind of……

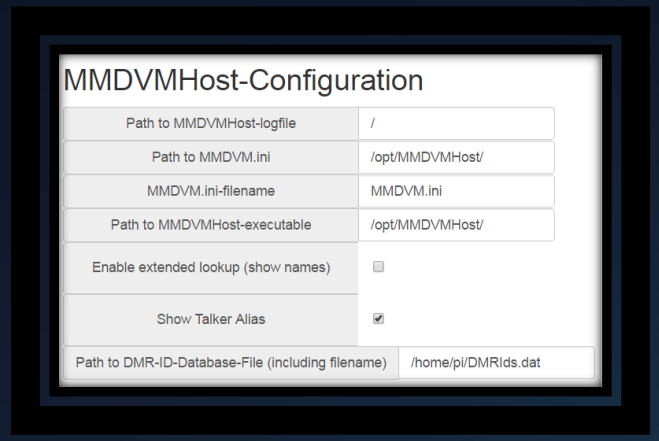


- RF for the “short” haul
- Internet for the “long’ haul
- Lower Power – HT <> Hotspot ~1W or less

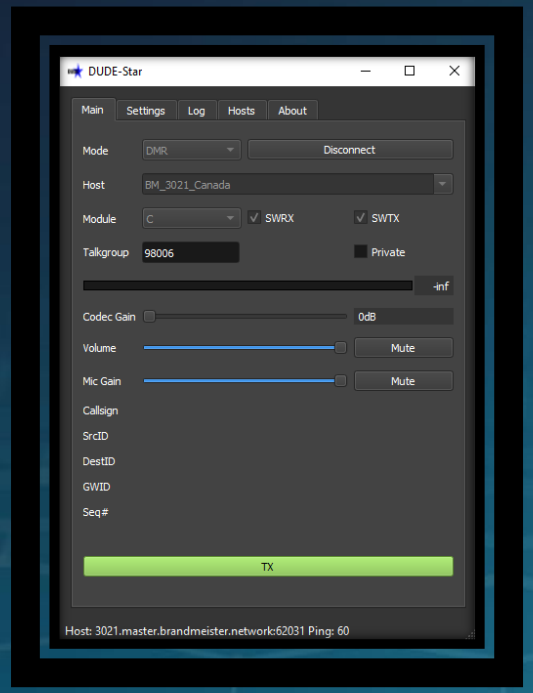
Hardware Options

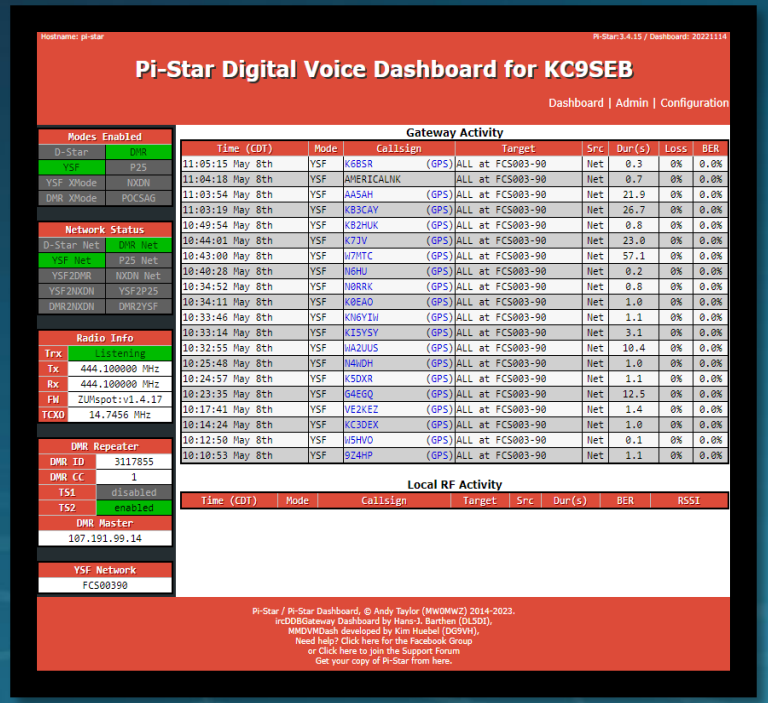
- SharkRF OpenSpot 4 ~$400
- ZumSpot ~$175
- ZumRadio ~$249
- BridgeCom ~SkyBridge $424
- MMDVM (Board ONLY- requires RPI etc.) ~$60
- DVMEGA (Dual Band - Board ONLY- requires RPI etc.) ~ $160
  - BlueStack (Android) / iBlueStack (iOS) Micro ~40
- ThumbDV ~$120
- “Chinese” Kits on Amazon ~ $100 -- $200

Software Options – ALL FREE



- MMDVM Host
- Pi-Star
- BlueDV
- DV4Mini
- DudeStar for Windows
- DroidStar (Android and IOS)





My Own Experiences…..Both at Home and Mobile

- Pi-Star on RPI ZERO W with Nextion Screen
  - Managing a ZumSpot

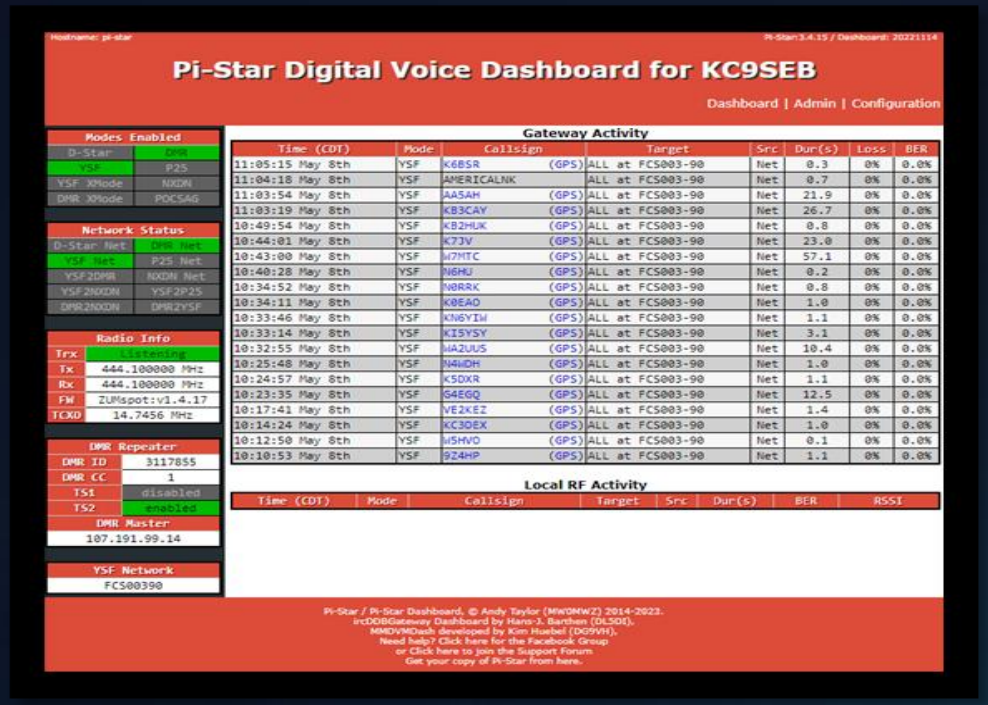
- BlueDV on Mobile Device (Phone / Tablet)
  - Managing DVMEGA (UHF) / BlueStack Micro+

Useful Sites to see what is going on…..

BrandMeister
- https://brandmeister.network/
- Hose

Fusion C4FM
- YSF & FCS Reflectors

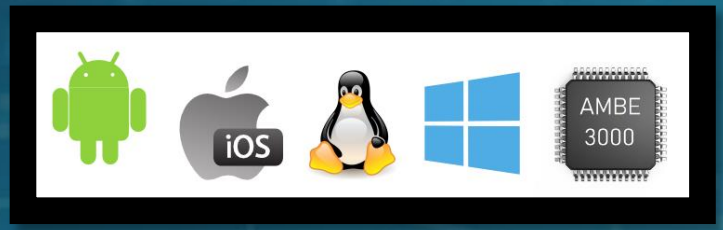
My Own Experiences…..Both at Home and Mobile



PIStar by Andy Taylor - MW0MWZ

BlueDV by David Grootendorst - PA7LIM

Pi-Star is a custom, pre-configured SD Card image for the Raspberry Pi (and other ARM based single board computers).



Fusion Setup – FT70D

- Simplex 438.000
- DN – Digital Mode
- 1W Power

DMR Setup – TYT MD380

(Has MD380Tools applied)

- Simplex 438.300
- Digital Mode
- TS=1 / CC=1
- Power = Low

Thank-You

Feedback and or questions?
>> director3@frrl.org