DMR

Operate in DMR with DVMEGA. Free mode.

I'm going revolucionate the concept that we have about operating in DMR with a DVMEGA access point that works in mode DMO.

In this tutorial, I'm going to demonstrate as taking advantage of **the last update of the MMDVMHost**, and their new parameters of configuration, can use an only channel in our walkie for power hook us to the TG that we want, although not it have in our codeplug. It will no works if we have an non updated version, in which is implement them parameters discussed in forward.

Starting from now will use only the TG9 that is which usually have been using to connect us to the reflectors. We will put in him and not us will change more.

Are going to see that parameters have that change in the file MMDVM.ini, that is the file that contains the configuration of our MMDVMHost, so we allow use this form of operate in mode free in DMR.

Will highlight those changes that we must make in red.

Within the block [General]:

1. Will seek them parameters MODEHang and you will remove the square brackets (#) because are going to tell you to the modem that no change of mode in them next 3600 sg. I.e., that it will remain in DMR and will not be listening to other modes for 1 hour. Perhaps this is a disadvantage to those that it used in mode multimode...

2. You will get square brackets (#) to the parameters RFModeHang and NetModeHang, because we are not going to use them.

In this way it will looks like this. Take notice that in Callsign is my indicative EA8II. You must put the yours.

[General]
Callsign = EA8II
Timeout = 180
Duplex = 0
ModeHang = 3600
#RFModeHang = 15
#NetModeHang = 3
Display = none
Daemon = 0

Well, this block is ready, but we still have also changed some things on the block [DMR]

1. In the block [DMR] will change the parameters CallHang and TXHang to 3600, indicating so not hang or the calls received or them transmitted by a period of 1 hour.

2. Also change the parameters TGRewriteSlot1= 1 TGRewriteSlot2= 1 BMAutoRewrite= 1 BMRewriteReflectorVoicePrompts= 1 thus activating the Rewrite function that is going to make the deflection of the TG of the network to our TG9 both TX and RX.

In this way it will looks like this. Take notice that Id is my Id 2148034. You will have to put yours.

[DMR]
Enable = 1
Beacons = 1
ID = 2148034
ColorCode = 1
SelfOnly = 0
# Prefixes = 234, 235
CallHang = 3600
TXHang = 3600
#Blacklist =
#DstIdBlackListSlot1RF =
#DstIdBlackListSlot2RF =
#DstIdWhiteListSlot1RF =

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#DstIdWhiteListSlot2RF =
#DstIdBlackListSlot1NET =
#DstIdBlackListSlot2NET =
#DstIdWhiteListSlot1NET =
#DstIdWhiteListSlot2NET =
TGRewriteSlot1 = 1
TGRewriteSlot2 = 1
BMAutoRewrite = 1
BMRewriteReflectorVoicePrompts = 1
DirectDial = 0
TargetTG = 9
```

Once done, we will record the changes and will reboot the raspberry pi . We can already operate calling the TG freely by its number without changing the channel. We always operate in the TG9, as so is defined in the parameter TargetTG = 9

Important tips and thoughts to keep in mind:

We have in our codeplug as contact the disconnection command, that is the 4000, but not call as private, but as GROUP and search it by the contacts. This is very important. **When we do a 4000 private, we disconnect from the reflectors, but when we do a 4000 group, disconnect us both TG and reflectors we have opened.**

and this so?

Imagine that I'm going to TG 214 to listen to my friends... so I make a private call to 214 and floor PTT... I'm in 214... and I suddenly want to change me to TG 2148 because I want to talk with my good fiends in Canary Islands, but didn't do a 4000 group... what could be happened?

We will start to receive both TG at the same time... the first having traffic going on, and when loose change, if there is traffic in the former, you have put it below... which already inferred that as not agree that there is a change of both TG mic simultaneously I will not be able to send a 4000 group to be able to disconnect me from all TG opened

So?... **the solution is use the TG that we want and then disconnect with a 4000 to GROUP. NOT to PRIVATE.**

Example:

   1. In the TG9 will do a "Manual Dial" to the 214 + PTT (though no one will tell us, because we are connected)

   2. We want to change the TG. Look for a break between backing mic and go to contacts and choose of our contact the disconnect command that will be 4000 to GROUP, and press the PTT.

   3. Will listen to "Desconectado" or "No link" that is it same. So now we can connect to another TG.

See the video below by way of example to understand its operation.
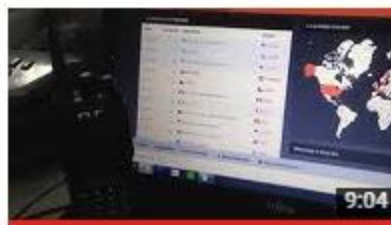
Already will be turning those heads, thinking that they don't need more TG in the codeplug... clear, so if I can get into that want me, anytime, and also all times who wants to... If, so is. This is the reason why I explain this way of operating in DMR.

Reflection:

- If not need put more TG in my codeplugs, is space that me saving of them 1000 contacts that I allows my team... only need a contact, the 4000 to group, because if I have the firmware patched with the database of DMR callsigns stuck inside them have all... It would be funny that don't need but 2 contacts to what do to before... 1 for the channel TG9 and another for the 4000 to GROUP... Since the other them will read of the database... And I worried because everything could not be me...
- If only I'm going to use a channel... which corresponds to the TG9... not need program any other channel for others TG, because entered already directly marked in the TG9...
- If see to someone speaking by the HOSELINE in a exotic TG and want to talk with it or listen it already not have by that use only the HOSELINE for hear... now can enter in the exotic TG directly and listen it or participate in it by my walkie and leave me when wants to... another TG that wants to... freely...

Finally, and this is already a personal reflection, when we arrived at the DMR, believe that its use is similar to a phone in the sense that we believe that to access a TG, only we should mark that we want to and it that ready... but no.

So far has not been possible for several reasons. The first is that we are using equipment oriented to the commercial sector and not to the of the amateur, that demand always diversify, experimentation etc... Thanks to the enlargements that have given us the patched firmwares we have been able to expand the operational capacity of the network. From here thanks to Travis Goodspeed for the tools md380tools.

The second is that you know all large projects in its infancy, though be clear what you want to get the resources needed are not always and as one is brewing a knowledge that being applied creates tools to support the objective. One of the most importants is the MMDVMHost program and the development of the DVMEGA shield, which has managed to shoot the interest by the DMR DSTAR P25 and C4FM network.

Us amateurs know very well that teamwork is what makes us get to what we want to become a reality.

It feel for those who have a DV4MINI because this not will serve for you. Not for those who have Bluespot u Openspot, since not work with the MMDVMHost.

Learn, enjoy, share, help.

73 from EA8II, Eduardo.