

Getting Started with Allstar - Digital Bridges

**Introductions to the digital radio field of /software/hardware
and relationship/connectivity with Allstar software**

Introduction

- Who are we
- Background
 - Hardware
 - Software
 - Networking

Allstar

- Quick history lesson
- Linking nodes
 - To other nodes
 - To other services (Echolink, etc)
 - On demand linking and control

Digital networks

- Different flavors (DMR, YSF, P25, DSTAR, NXDN)
 - DMR
 - BrandMeister, DMR-MARC, DMR Plus
 - P25
 - P25NX, P25Reflector
 - DSTAR
 - DPLUS, DEXTRA, XREF
 - YSF
 - YSFReflector, FCS
 - NXDN

Bridging the gap

- WHY???
- Emergency communications
- AD-Hoc connections
- Access to your repeaters from other places and modes (hotspots)
- Because you can (experimentation)

Bridging the gap

- DVSwitch is composed of these tools
 - Analog_Bridge
 - MMDVM_Bridge
 - Quantar_Bridge
 - DMRLink and HBLink
- Cloud or PC/SBC based

Bridging the gap

- Considerations
 - Audio quality between the networks
 - ASL has EXCELLENT audio quality
 - Digital has no hiss
 - Control
 - Use private nodes to allow the maximum control
- How does it work
 - Stream conversion
 - Audio and metadata converted from one format to another
 - Adapters for each specific network

DEMO!

- In this demo we will show cross mode operation
 - DMR < --- > ASL
 - DMR is Talk group 314
 - ASL is node number 29999
 - All traffic is transferred in each direction
 - DMR encode and decode is done in software

How To?

- Install DVSwitch package
- ASL
 - Create a private node with USRP channel driver
- Analog_Bridge
 - Configure Analog_Bridge.ini
- MMDVM_Bridge
 - Configure MMDVM_Bridge.ini
 - Configure DVSwitch.ini

Come join us at groups.io

- <https://dvswitch.groups.io/g/main/topics>
- ASL to DMR tutorial
 - <https://docs.google.com/document/d/1eN50Csr29eAprBu7eKA0Bfa2XUcsXw5iktY1Ey-Qjkg/edit?usp=sharing>
- DVSwitch overview
 - <https://docs.google.com/document/d/1-Ot5pGaibmEGmmFh-l8HUq2LRyZoujiJYulr-VSga9s/edit?usp=sharing>