# BRANDWEISTER NEWORK

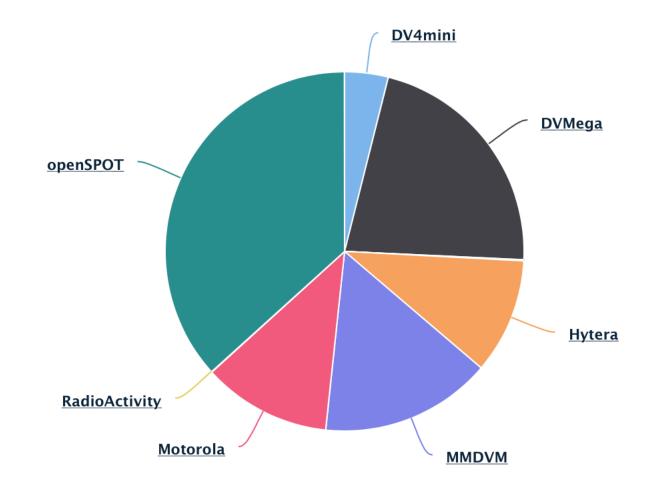
Artem R3ABM

HamRadio 2017



#### GROWING UP

- 58 countries
- 36 servers (including testbeds)
- 1100+ repeaters
  - 380+ Motorola
  - 340+ Hytera
  - 400+ MMDVM
  - At least 3 RadioActivity ©
- 2300+ hotspots
  - 800+ DV MEGA
  - 140+ DV4mini
  - 100+ MMDVM
  - 1200+ openSPOT
- 25000+ active users
- ... we started at Nov 2015!





## NEW FEATURES SPECIAL TO HAWRADIO 2017

- Air Security
- Personal passwords for Hotspots
- Improved support of RadioActivity KAIROS DMR Repeater
- Support of Abell R-80 DMR Repeater
- Timeout timer for Talk Groups

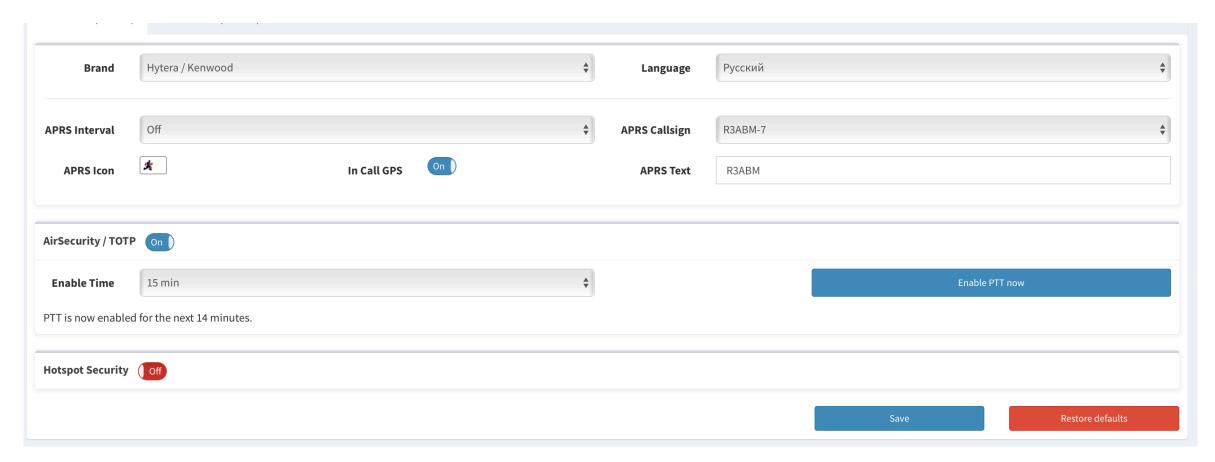


#### AIR SECURITY

- Do you want to protect your ID on the air from illegal use?
- Air Security allows to make time-limited access using your ID
- Air Security is optional, you can turn it on or off via Dashboard
- At this moment Air Security can protect calls that go via master server only
- Two options to activate an access session:
  - By pressing button at Dashboard
  - By sending TOTP password on the air (SMS or private call)
- Your access session will alive for half an hour on all repeaters and hotspots connected to the same master server



### AIR SECURITY - ACTIVATE VIA WEB





#### AIR SECURITY . TOTP ON THE AIR

#### • How it works?

- Based on Time-based One-time Password Algorithm (RFC 6238)
- Dashboard creates unique secret only known to your TOTP app and BrandMeister
- TOTP app generates unique passcode every 30 seconds
- You should send this passcode to BrandMeister to open access session

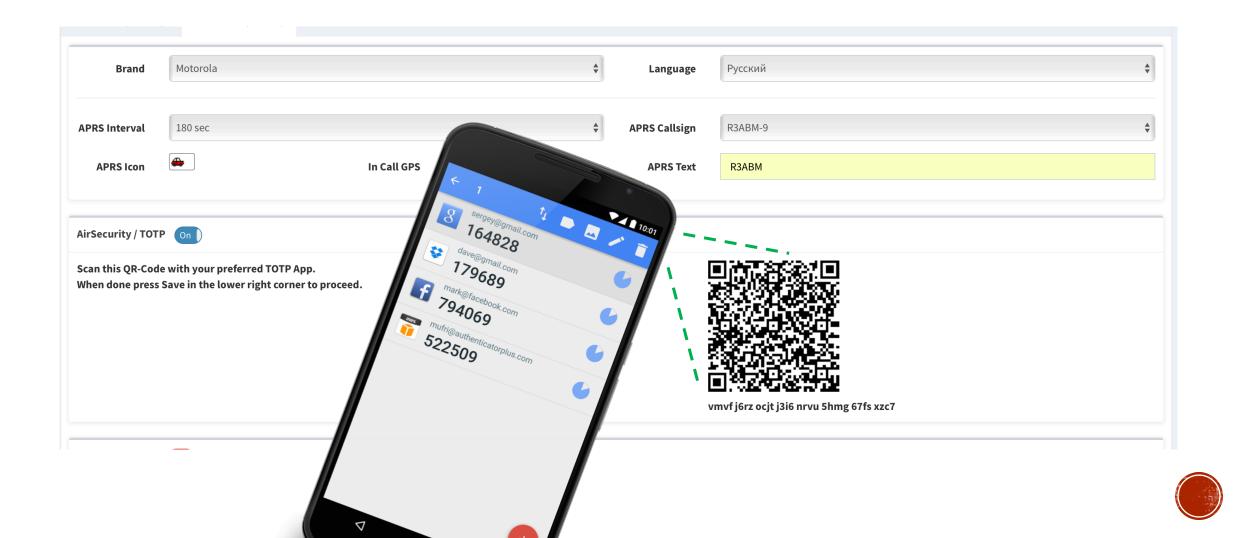


#### AIR SECURITY . HOW TO PREPARE

- Install any TOTP app to your smartphone (it could be Google Authenticator)
- Turn on AirSecurity at BrandMeister's Dashboard
- Scan QR-code via TOTP app
- Press SAVE button at Dashboard



### AIR SECURITY . HOW TO PREPARE



#### AIR SECURITY . HOW TO USE

- Open TOTP app
- Switch your radio to enter Private ID
- Enter 9 and then 6 digits of active TOTP password shown on the screen of TOTP app

Press PTT to send call

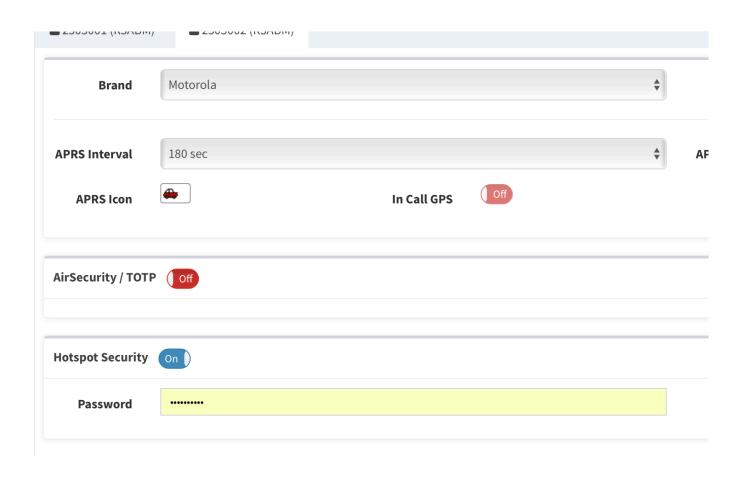


#### PERSONAL PASSWORDS

- You can switch from use of default server passwords to your private password
- BrandMeister DMR Server allows to set personal password to any connected device ID that supports authentication (and we know how to do it)
- If you want to setup personal password to repeater please ask your server sysop
- Personal passwords for hotspots can be managed via Dashboard



#### PERSONAL PASSWORDS - HOTSPOT





#### KAIROS DWR REPEATER

- Special firmware for Radio Amateurs
- Requires to install our special software CronosAgent close to repeater (can be installed to OpenWRT, Raspberry Pi, x86 Linux machine or macOS)
- Supports simulcast broadcasting!
- New features:
  - Gather frequencies, color code, system state, geo-location
  - Enable / Disable repeater remotely
  - Improved transmission quality





#### ABELL R-80 DWR REPEATER

- Cheap factory-made repeater
- At this moment R-80 supports voice calls only (no data calls or CSBK)





#### TIMEOUT TIMER

- Sometimes operators talk too long ©
- Timeout timer allows TG trustee to limit talk time of each call
- Value of timer can be defined by per group basis



