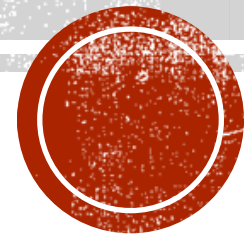


# BRANDMEISTER NETWORK

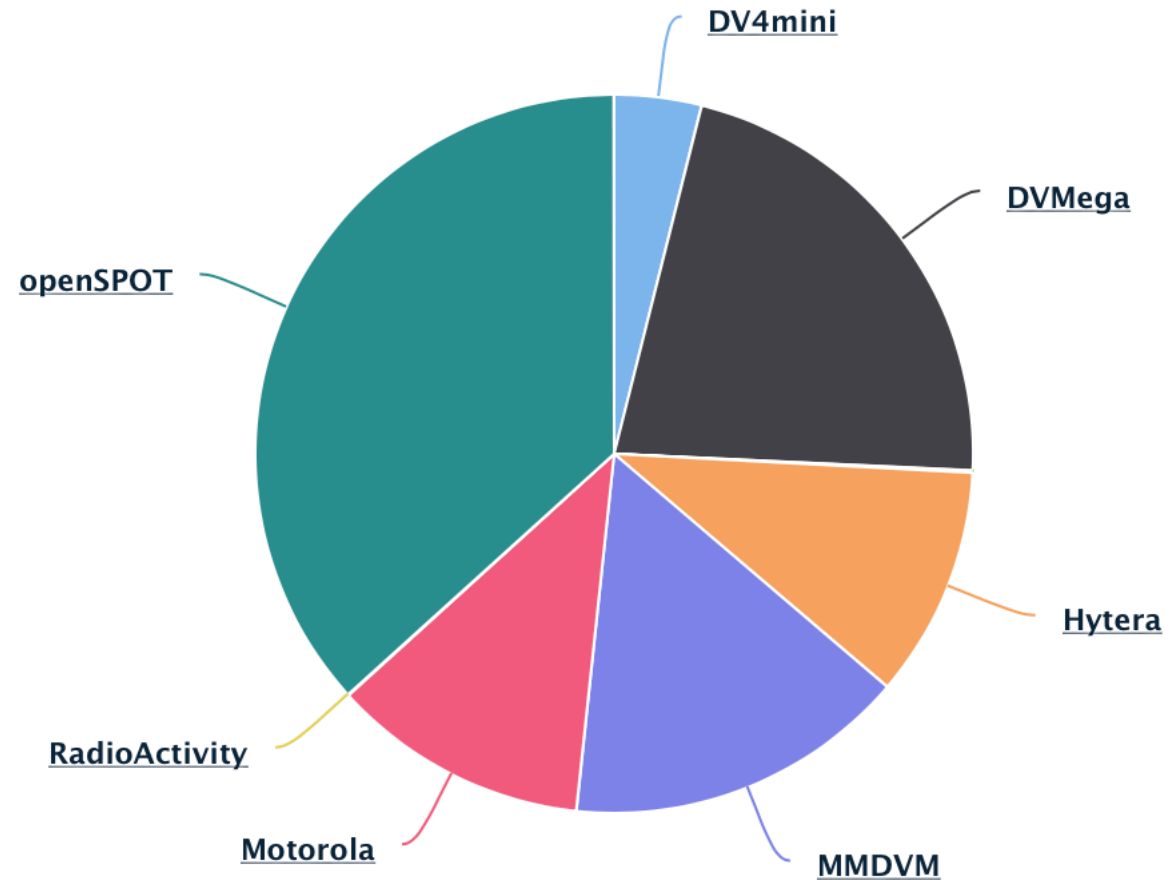
Artem R3ABM

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 HAMRADIO 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
- Improved support of Tactical 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

Brand	Hytera / Kenwood	Language	Русский
APRS Interval	Off	APRS Callsign	R3ABM-7
APRS Icon		In Call GPS	On
		APRS Text	R3ABM

AirSecurity / TOTP

On

Enable Time

15 min

Enable PTT now

PTT is now enabled for the next 14 minutes.

Hotspot Security

Off

Save

Restore defaults



# 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

Brand

Motorola

Language

Русский


APRS Interval

180 sec

APRS Callsign

R3ABM-9

APRS Icon



In Call GPS


APRS Text

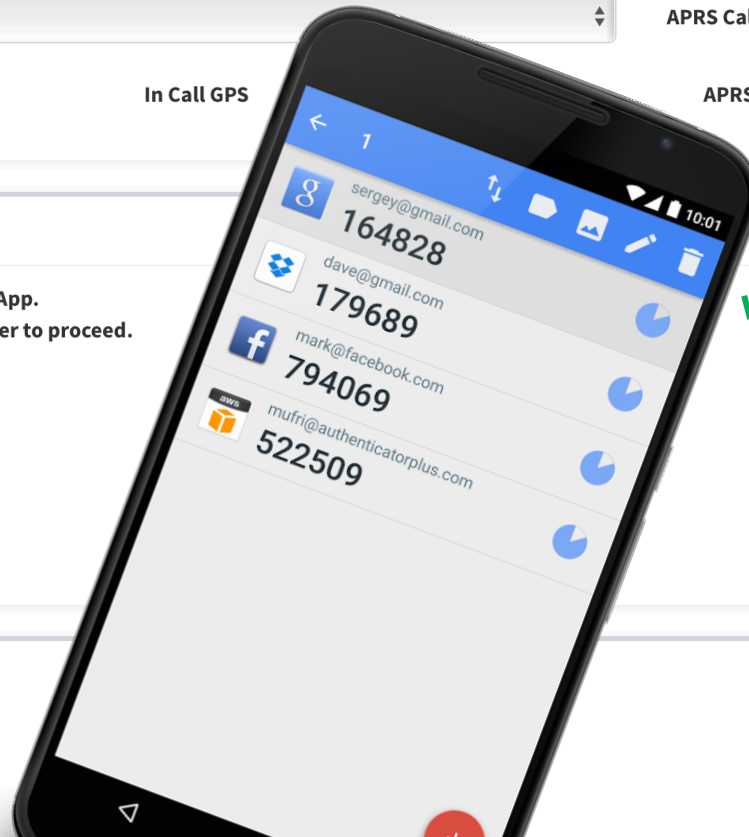
R3ABM

AirSecurity / TOTP

On

Scan this QR-Code with your preferred TOTP App.  
When done press Save in the lower right corner to proceed.

  
vmvf j6rz ocjt j3i6 nrvu 5hmg 67fs xzc7





# 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

2000001 (RANDOM)

2000002 (RANDOM)

Brand


Motorola

APRS Interval

180 sec

AF

APRS Icon



In Call GPS

Off

AirSecurity / TOTP

Off

Hotspot Security

On

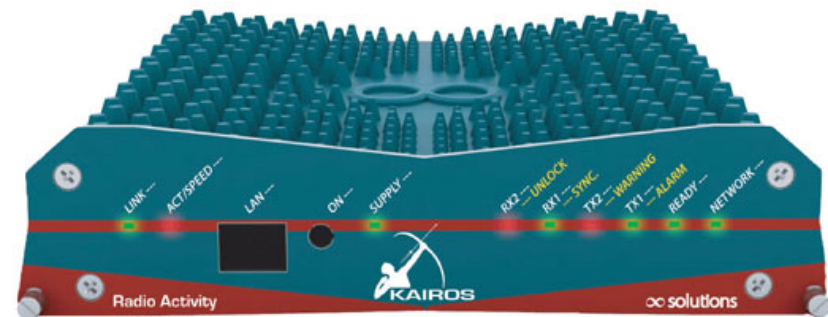
Password

.....



# KAIROS DMR 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 DMR REPEATER

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



# TIMEOUT TIMER & TACTICAL GROUPS

- 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
- Tactical Talk Groups
  - Tactical Talk Groups has long transmissions
  - We got claims for case of on-demand (dynamic) subscriptions:
  - Early (in-progress) call doesn't come immediately after subscription
  - We added feature to post-route in-progress calls and solve the issue

