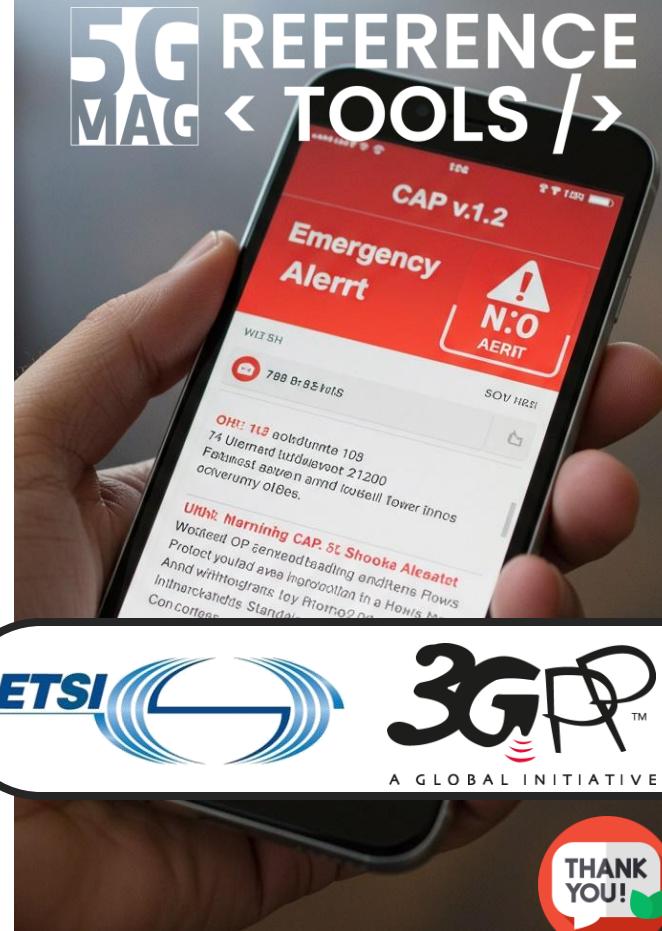




# 5G Broadcast Emergency Alerts



A GLOBAL INITIATIVE



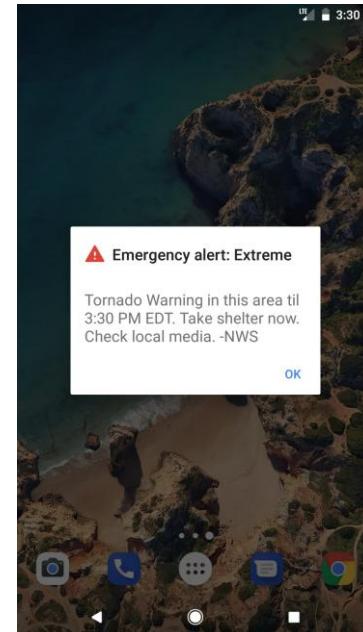
UNIVERSITAT  
POLITÈCNICA  
DE VALÈNCIA



# 5G Broadcast: Emergency Alerts

Reference Tools, what is being implemented?

- Public warning capabilities from 3GPP integrated in 5G Broadcast
- Cell Broadcast Service (CBS) does not require authentication with a PLMN.
- A Receive-only Mode network is compatible with CBS by default.
- CMAS (commercial mobile alert system) is available in current commercial devices.
- Devices monitor periodically a low-duty cycle paging channel (low power)
- Additional capabilities of CMAS:
  - Geofencing (send notification to users within a given area)
  - Possibility of sending URL linking to emergency media



All the [Technical Resources](#)  
Information on [Standards](#)  
Reference Tools available:

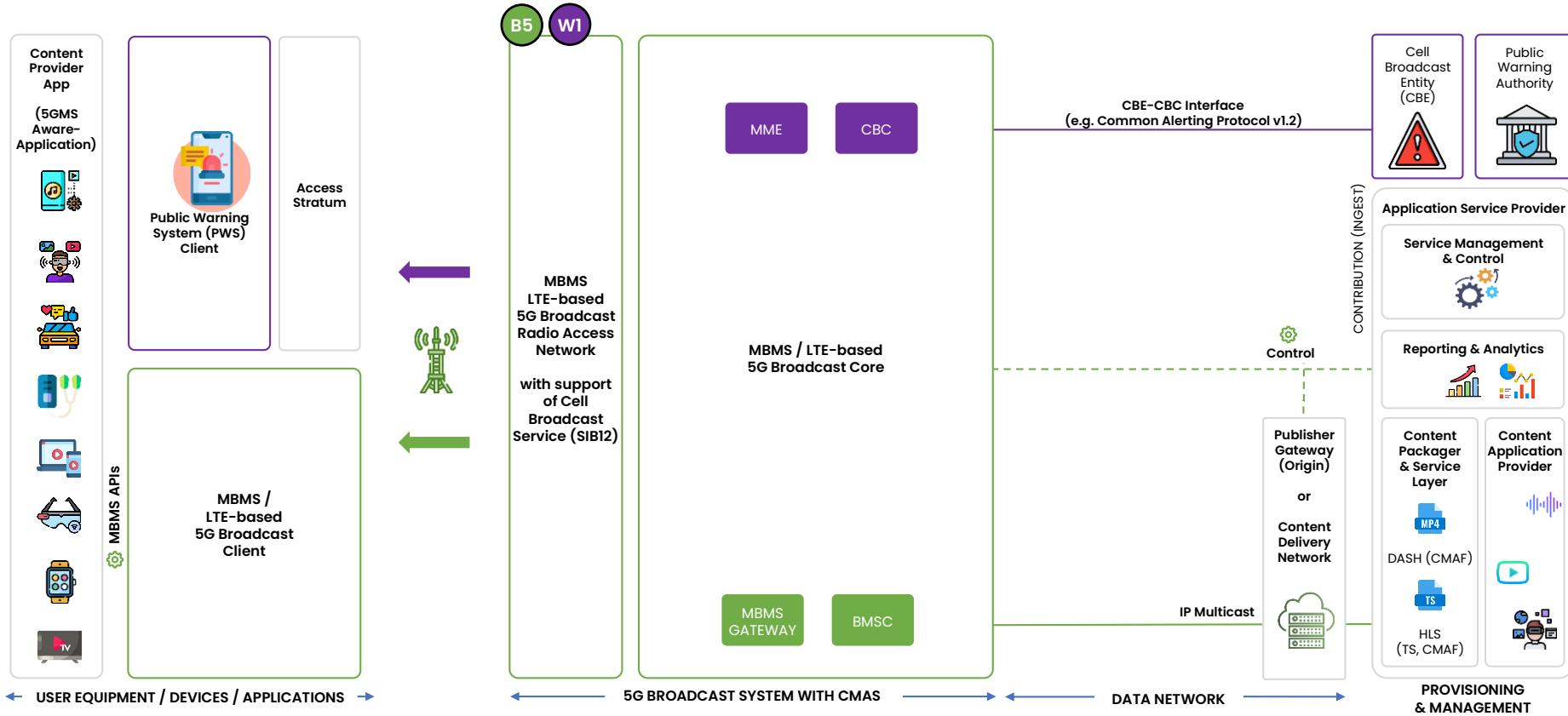
- [Project: Emergency Alerts over 5G Broadcast](#)

WHERE TO LOOK AT?



# 5G Broadcast: Emergency Alerts

Reference Tools, what is being implemented?





# 5G Broadcast: Emergency Alerts

Reference Tools, what is being implemented?

W1



[rt-mbms-tx-for-qrd-and-crd/emergency-alerts](#)  
(5G Broadcast TX for QRD & CRD with branch for PWS)



AGPLv3.0



srsenb  
srsepcc  
srsmBMS



Operating System:  
(Linux, Windows, Android)

Packages:  
(APK, Docker)

Cloud Installation  
Support

API Tool  
Support

Web Interface  
Support

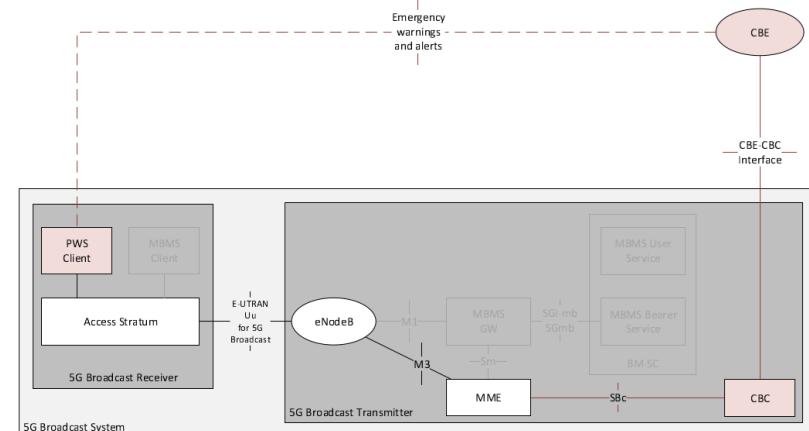


# 5G Broadcast: Emergency Alerts

Reference Tools, what is being implemented?

## Basic implementation of SIB 12 delivery over SDR Transmitter for QRD/CRD

- Implementation of **Cell Broadcast Service** functions:
  - **Cell Broadcast Entity (CBE)**
  - **Cell Broadcast Center (CBC)**
- Implementation of **interface CBE-CBC** with Common Alerting Protocol v1.2 (**CAP v1.2**)
- Implementation of **interface SBc** between **CBC** and **MME**
- **Currently supported**
  - SIB12 delivery over eNodeB
- **Not implemented and welcome...**
  - Development of MME with interface to CBC
  - Development of CBC and interface to MME
  - Development of CBE generating CAPv1.2 to CBC
  - Mapping of CAPv1.2 to SIB12





# 5G Broadcast: Emergency Alerts

Reference Tools, what is being implemented?

**Check our Tutorials and join the Developer Community**

How to use the tools? [Check the GitHub Tutorials](#)

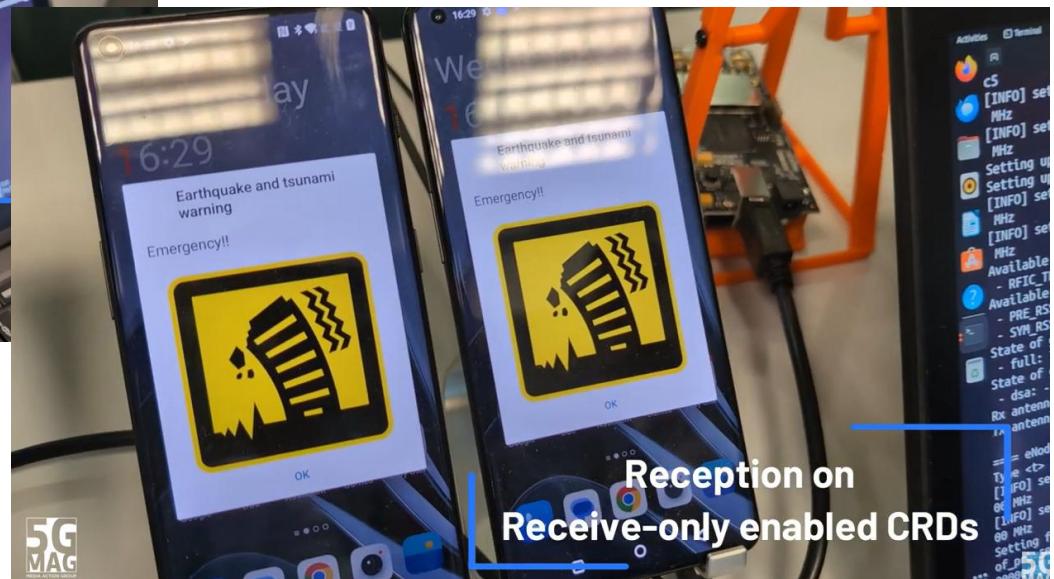




# 5G Broadcast: Emergency Alerts

Reference Tools, what is being implemented?

## 5G-MAG Reference Tools in action





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