

FOSS Public Alert Server



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funded by:



Motivation

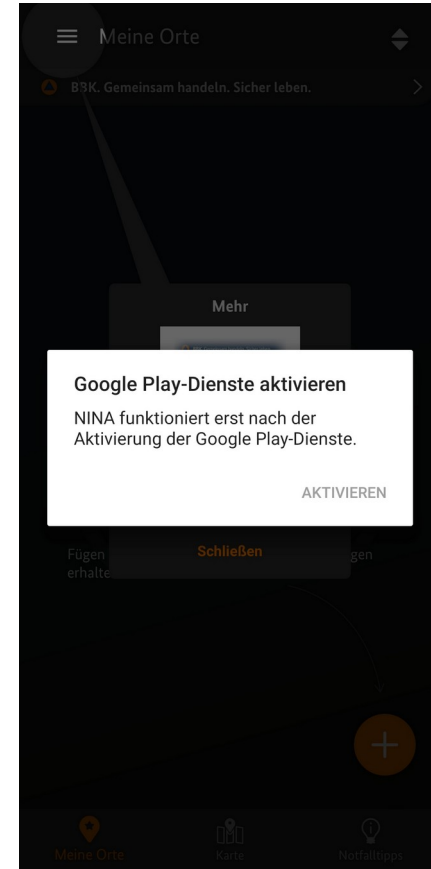
- Emergency alerts can save lives
- Examples: Valencia, ES (2024), Ahrtal, DE (2021)
- Number of natural disasters is increasing
- Mobile phones have become a key part of alerting
 - Cell Broadcast is essential but only one part of this

Mobile Phone Alerting

- National Warning Apps
 - More detailed information
 - Limited to proprietary platforms
 - Limited to one country
- Google
 - Integration in maps/routing



There are multiple warning apps for Germany



Without Google Play Services they won't even start

How to get emergency alerts?

- Find frequently used data formats for emergency alerts

Common Alerting Protocol (CAP)

- OASIS standard
- XML format to describe an alert
 - Event description
 - Instructions
 - Affected area
 - Categories, severity, urgency, certainty
 - Multi-language support



How to get emergency alerts?

- ✓ Find frequently used data formats for emergency alerts
- Collect all available emergency alerts from official sources

CAP Feeds

- RSS/Atom feeds for CAP messages
- Curated lists of CAP feed providers
 - [Alert-Hub.org](#)
 - [IFRC Alert Hub](#)
 - [World Meteorological Organization \(WMO\)](#)
- More than 200 feeds from about 100 countries

How to get emergency alerts?

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- Build server to subscribe to area

Aggregations-Service

- Django application with PostGis
- Celery as scheduler for feed polling
- Resolve geocodes to polygons
- Endpoint to handle subscriptions
- Send push notifications
- Monitoring to evaluate feed quality

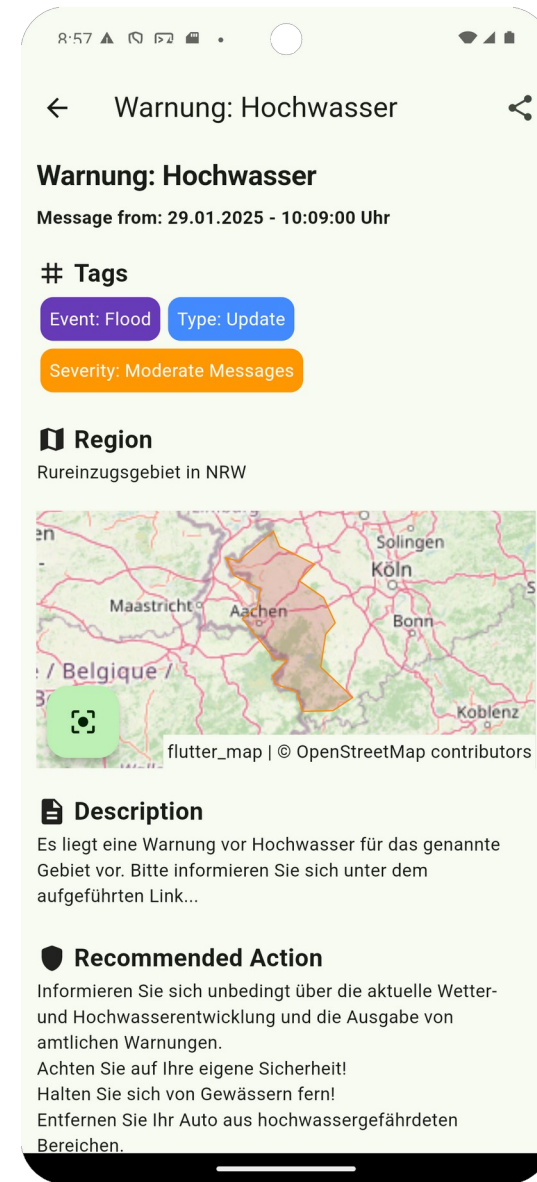
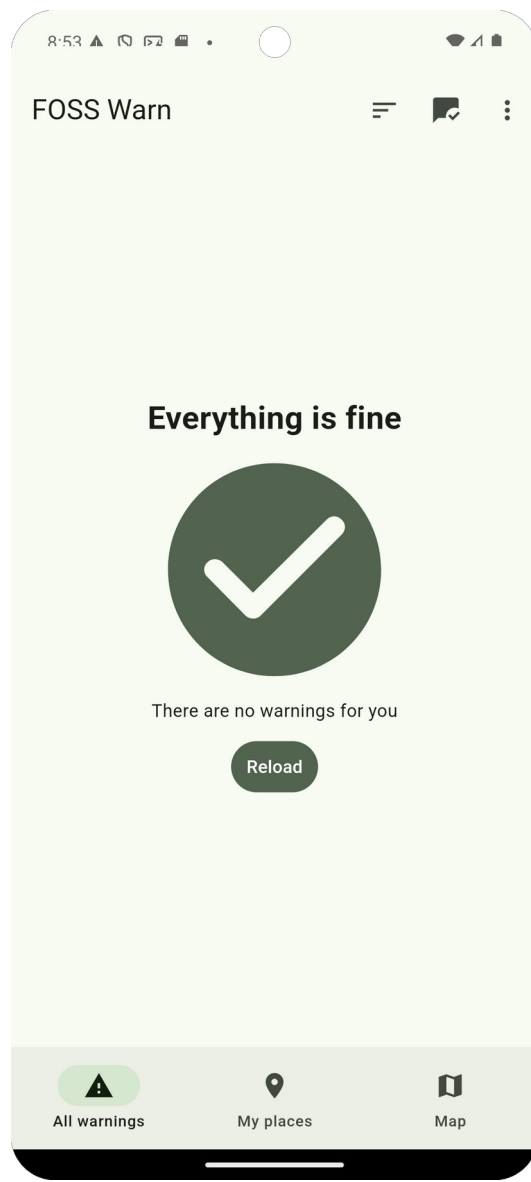
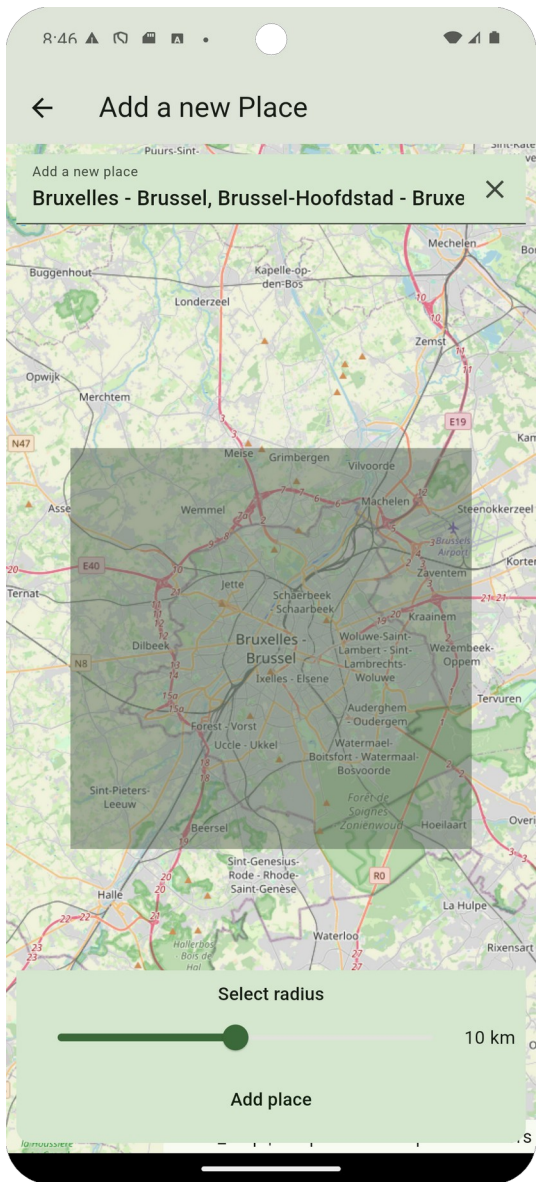
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Current Clients

- FOSSWarn
 - Open Source Flutter app
 - Previously just for Germany, soon for the world
 - Push via UnifiedPush
 - FPAS support in alpha test





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- Tell everyone about your project
- Look for contributors

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Next steps + Contribute

- Hopefully, in the next months: First stable release of FPAS and FOSSWarn
- More Clients?
 - SmartHome (add-on for Home Assistant?), Linux, OSM?
- Build cool features:
 - Automatic registration of travel routes / subscription for current location
- How can you help?
 - Help to build clients for more platforms
 - Help us test the software
 - Help us translate (weblate)
 - Give feedback
 - If you have contact with infrastructure in your country → talk to us
 - If your country is missing in our [CAP source list](#) and there is a CAP feed that we could add → talk to us
 - Tell your friends about the project

Code and Social Media

Source code



<https://invent.kde.org/webapps/foss-public-alert-server>



https://github.com/nucleus-fm/foss_warn

Contact



https://matrix.to/#/#FPAS_discussion:tchncs.de



https://floss.social/@floss_public_alert_server



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