



# Emergency and Weather Alerts

How to not have your life depend on using Google

Akademy 2025

Volker Krause



vkrause@kde.org  
@VolkerKrause@floss.social



## Why are we talking about this here?

- Mobile phones are the most important alerting channel
  - Cell broadcast
  - Push notifications
- Existing infrastructure/apps:
  - Proprietary
  - Limited to one region



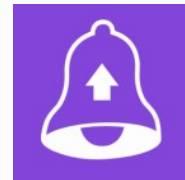
WORLD  
METEOROLOGICAL  
ORGANIZATION





# Push Notifications via UnifiedPush

- Client infrastructure shipped with KDE Gear
- Supports self-hosted and KDE infrastructure
- Used by
  - NeoChat
  - Tokodon



### Push Notifications

Online

Connected to the push notification server and operational.

Push provider:


Ntfy

Url:


<https://unifiedpush.kde.org>


▶ Test

### Applications


 NeoChat

Receiving notifications for new messages



 Public Alerts

Weather and emergency alert notifications



Help

Reset

Defaults

✓ OK

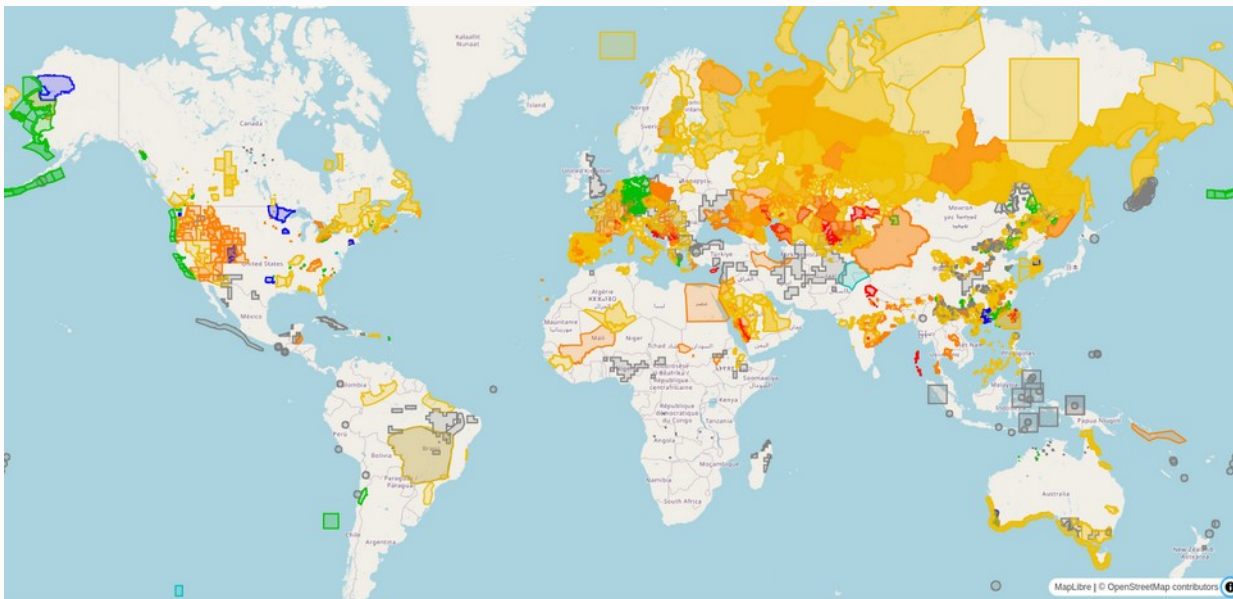
✓ Apply

⌛ Cancel



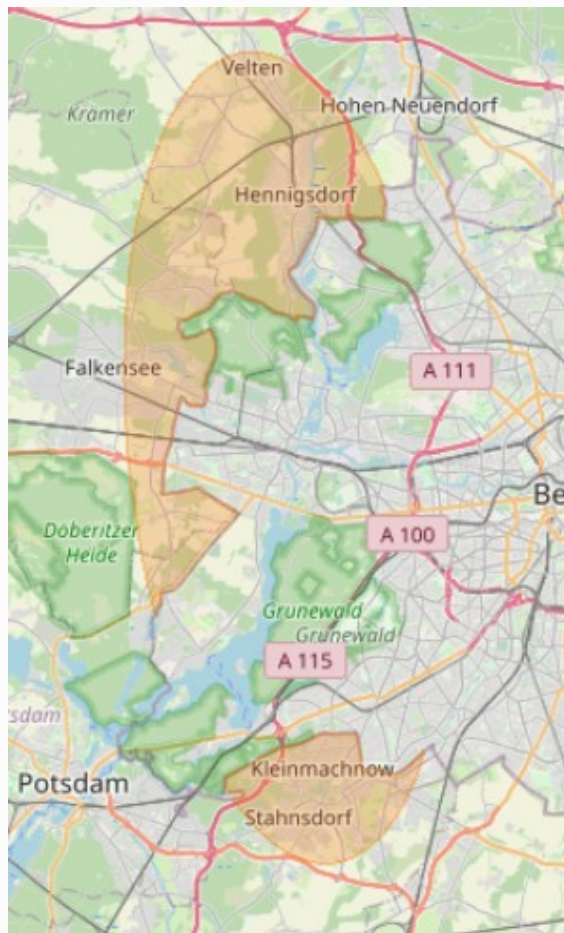
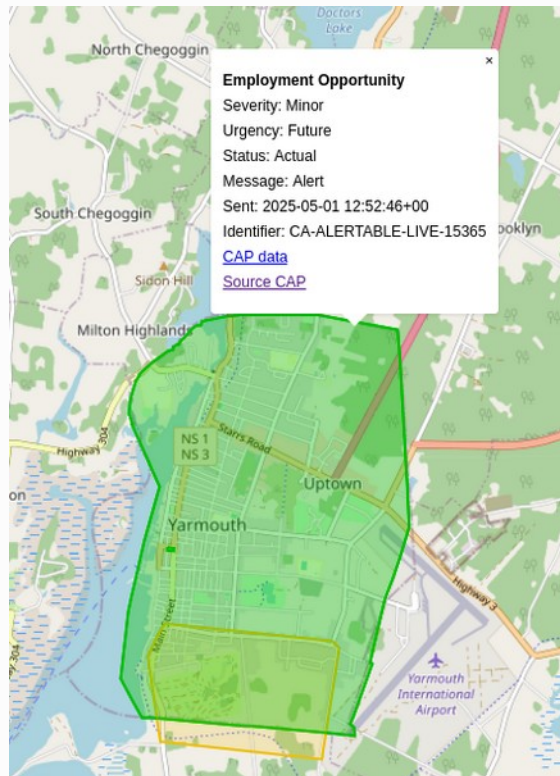
# Alert Aggregator

- Based on OASIS Common Alerting Protocol (CAP)
- Server infrastructure developed in collaboration with FOSSWarn





# Side quest: Alert data access and data quality



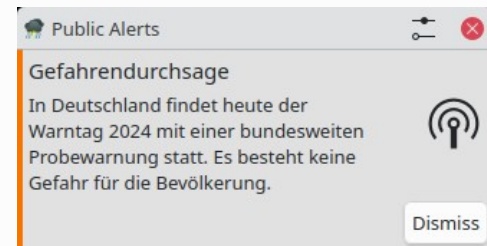
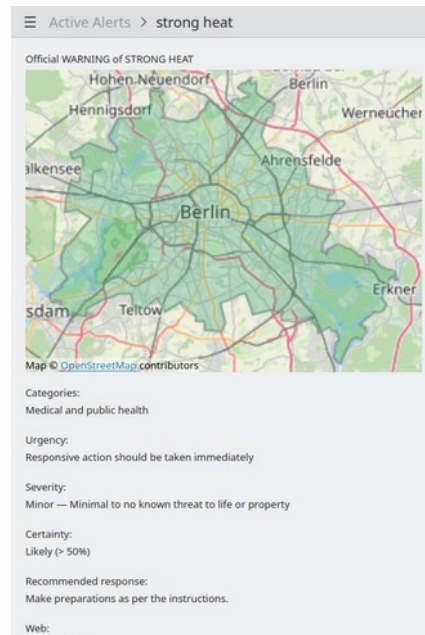
```
▼ category:  
  0:      "Geo"  
  1:      "Rescue"  
  2:      "Fire"  
  3:      "Infra"  
  4:      "CBRNE"  
  5:      "Safety"  
  6:      "Other"  
event:    "Gefahrenmitteilung"  
urgency:  "Immediate"  
severity:  "Severe"  
certainty: "Observed"  
▶ eventCode: [...]  
headline:  "Warnung vor markanter Glätte - Berlin"
```





# Client Integration

- How do we want to integrate this?
  - Dedicated app?
  - Plasma/KCM?
  - Weather apps/applets?
  - Marble?
  - Locations provided by other apps like Itinerary?





# Thank you!

- CAP Aggregation Server: <https://alerts.kde.org>
- KPublicAlerts: <https://invent.kde.org/utilities/kpublicalerts>
- FOSSWarn: [https://github.com/nucleus-ffm/foss\\_warn](https://github.com/nucleus-ffm/foss_warn)
- Emergency and Weather Warnings @ 38C3:  
<https://cfp.cccv.de/38c3-community-stages/talk/CE8KSK/>
- Emergency and Weather Warnings @ FOSDEM 2025:  
<https://fosdem.org/2025/schedule/event/fosdem-2025-5102-weather-and-emergency-alerts/>
- Push Notifications @ Akademy 2022:  
<https://conf.kde.org/event/4/contributions/108/>
- Push Notifications @ LAS 2023:  
<https://conf.linuxappsummit.org/event/5/contributions/149/>
- OASIS Common Alerting Protocol (CAP):  
<https://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2.html>
- Early Warnings for All: <https://earlywarningsforall.org>

