

# Pulse

*mapping the world together....*

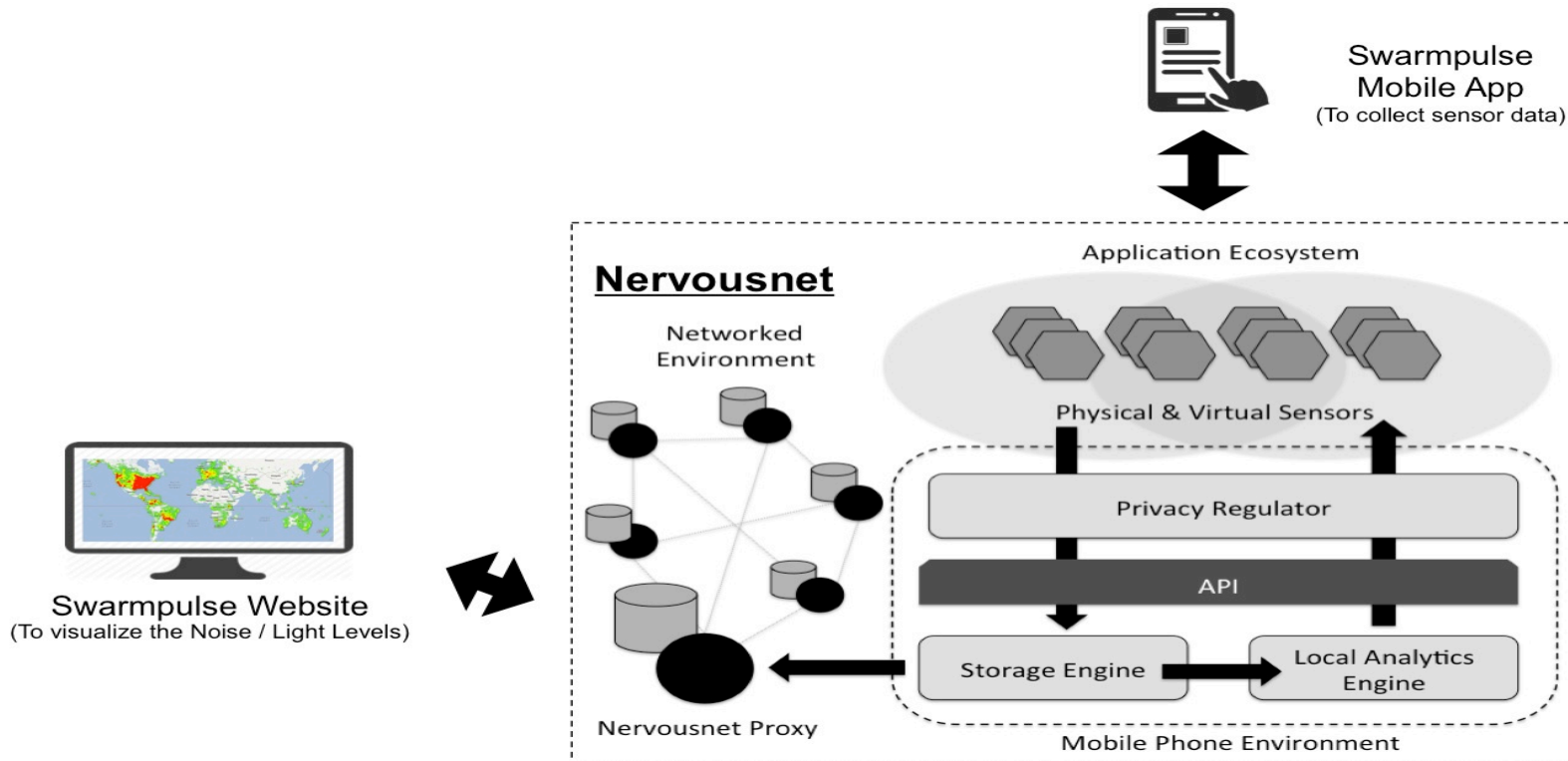
**PULSE**  
.inn.ac

<http://pulse.inn.ac>

# What is it?

- Built as part of a research initiative at the ETH Zurich, Professorship of Computational Social Science (COSS)
- Part of the Planetary Nervous System platform, a large-scale distributed research platform that provides real-time social sensing services as a public good
- Allows users to visualize and anonymously share data and digital content (sensors values, media, web links etc.)
- User generated content and data.

# System Architecture



- Real-time view
  - Visualize data as it is shared by users in real time.
  - Data is cleared after 60 seconds to avoid the possibility of large amount of data being shown on the map.
- Time-Machine
  - Go back in time to view data as was shared by users at specific times.
  - Again limited to 60 second window period from time chosen by the user.
- Sensors
  - Light, Noise
  - Visualize light and noise levels at various geo locations.
- Sharing
  - Text Message and web links.

# Features

To be implemented  
in version 2.0

- Allow for sharing of images, audio and video clips of limited duration.
- Rate Shared content.
- Report inappropriate content.

# How – to?

- Mobile Client Download (Android only):
  - On you mobile phone, use the download mobile app button in the right corner at <http://pulse.inn.ac>
  - Visit the following URL on your android phone:  
<https://play.google.com/apps/testing/ch.ethz.coss.nervous.pulse>  
(Open only for testing. You have to opt in for Alpha Testing after visiting the above URL on the Android phone)
- Website for visualization:
  - View website at: <http://pulse.inn.ac>

# Limitations

## ■ Web Browsers limitations

- Large amount of data (> 20000 markers) causes problems with the browser performance.
- To avoid this Clusters have been used to group together markers that are close. This is useful to an extent i.e. 60000 markers.
- Secondly the pulse of the system is set to 60 seconds, i.e. data is removed after 60 seconds in Real-Time view and in the Time-Machine view the results are limited to only 60 seconds from the start time chosen by the user.

# Screenshots

Website & Mobile Client



☒ Hide Labels

☐ Show Labels

Overlays

☒ Light

☐ Noise

☐ Messages

+

-

📱

🔗

🔄

Light Level (lux)

0
1-5
5-10
10-100
100-1000
1000-10000
10000-100000
100000-1000000
1000000+

