



Visualizing Transition of Crimes in Kobe using PRISM

(PRISMを用いた神戸における犯罪推移の可視化)

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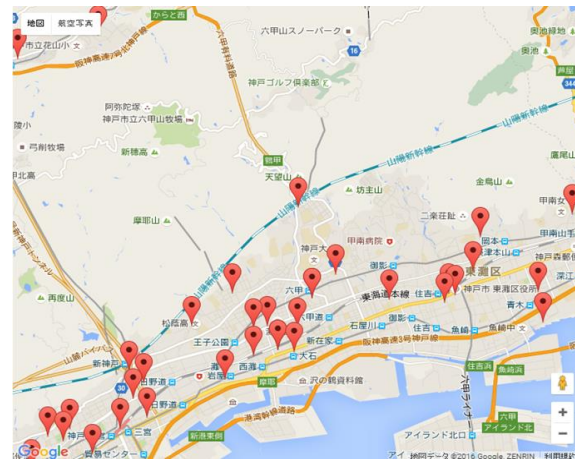
Online service providing incident information for citizens

- Promote citizen's self-protection for security and safety
- Typically distributed by ICT media (e-mail, Web)

Violence incident

On 7:30, June 2nd, an instance of violence occurred near Kobe Sannomiya-station. The suspect is a young man around 25-30 years old, ran away to east....

Online incident report



Security map

Problem in Conventional Services

- “One-for-all” information
- Tend to miss important information

PRISM (Personalized Real-time Information with Security Map)

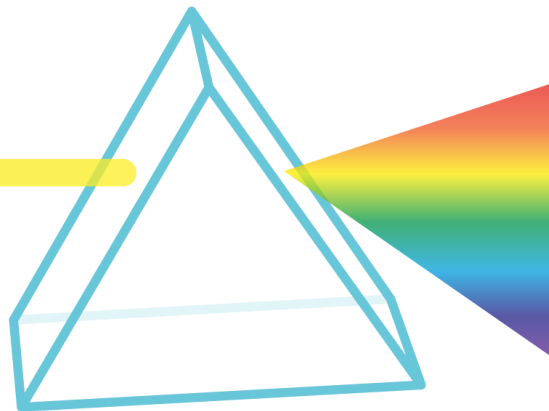
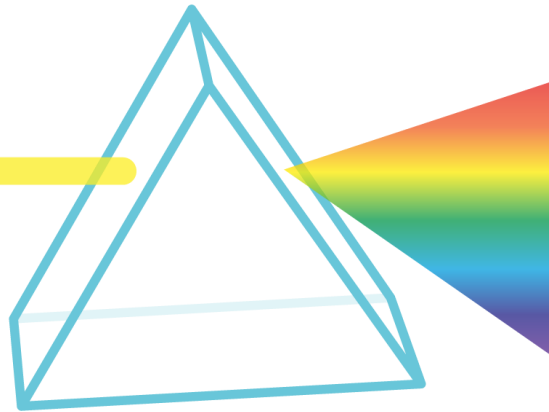


A new security information service that can

- **Personalize** incident information by **living area** of individuals
- Compute **severity** from distance, time and type of incident
- Visualize on **heat map**

Violence incident

On 7:30, June 2nd, an instance of violence occurred near Kobe Sannomiya-station...

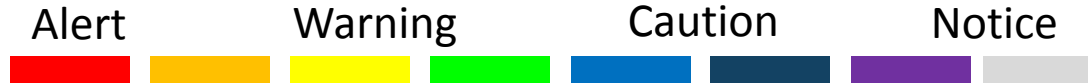


Severity of Incidents



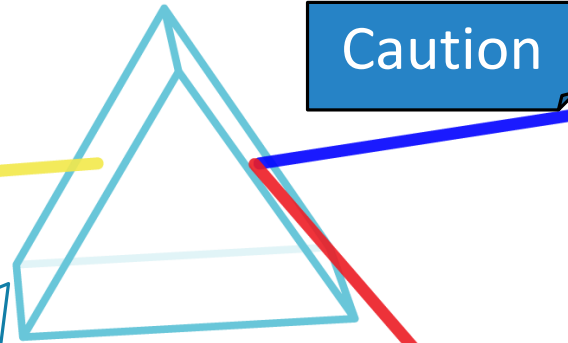
Degree of how the incident is serious for a user

- Closer and newer incidents are more severe



Violence incident

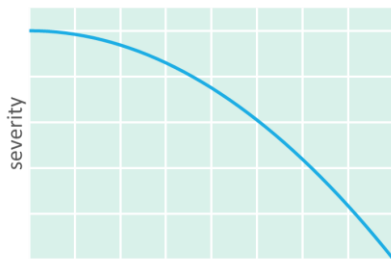
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Kagawa

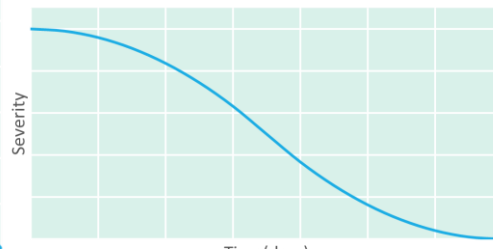
Living far from sannomiya

Decay by Distance



Distance(km)

Decay by Time



Time(days)

Alert



Wada

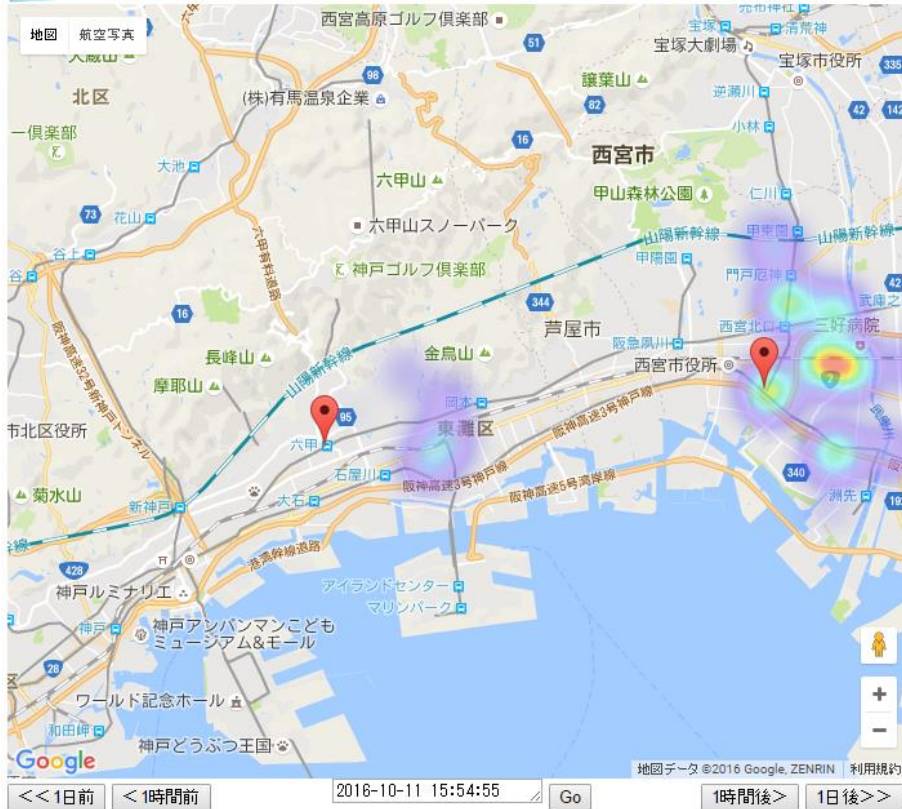
Living near Sannomiya

Demonstration



PRISM

PRISM for Web



Kagawa's map

PRISM for Web



Wada's map

Visualized Facts



- More incidents in Nishinomiya than in Nada Ward
- Relevant factors of incident occurrence
 - Location: more along **railways**, few in mountains
 - Time: incidents **always** occur somewhere, no relevance with season
- Ecology of wild pigs
 - Wild pigs stay in mountains in winter, come to town in summer
 - Three major spots to encounter
 - Shin-Kobe station, Okamoto town, and Kobe University



Conclusion



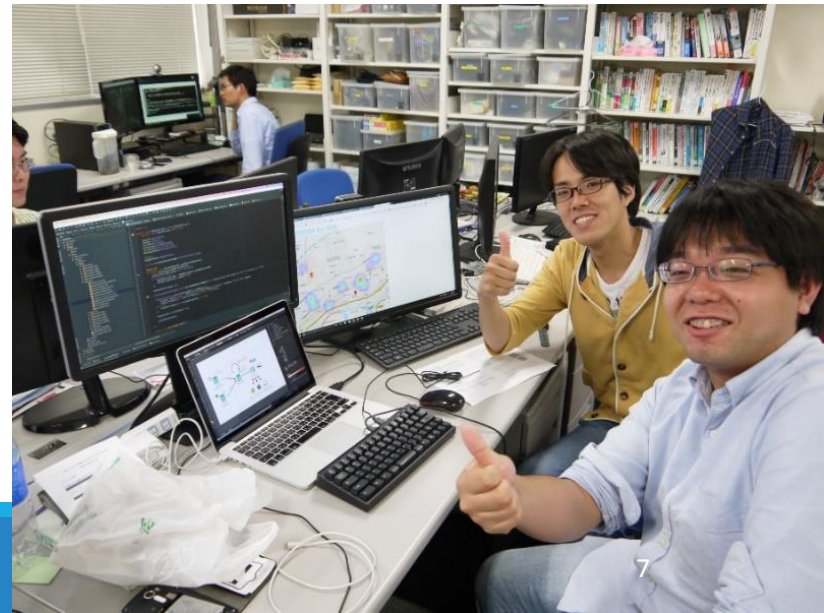
We present a new security information service PRISM

- **P**ersonalized **R**ead-time **I**nformation with **S**ecurity **M**ap
- Information is personalized by living area of individual users

By visualizing crimes, we can get powerful information to protect ourselves from incidents

Try PRISM now !!

- Web: <http://goo.gl/bDKejx>
- Android: Scan this QR-code

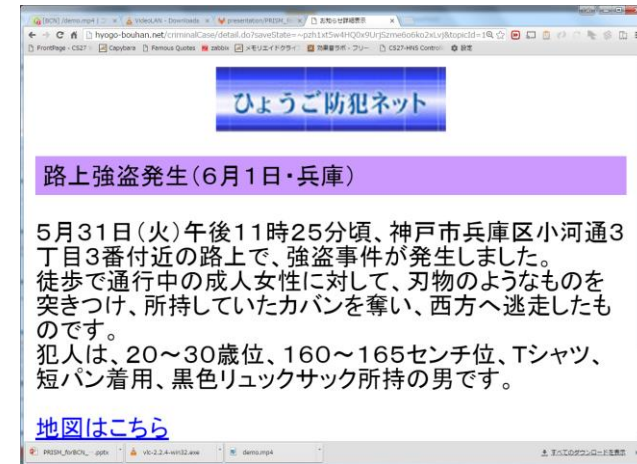


Using Open Data



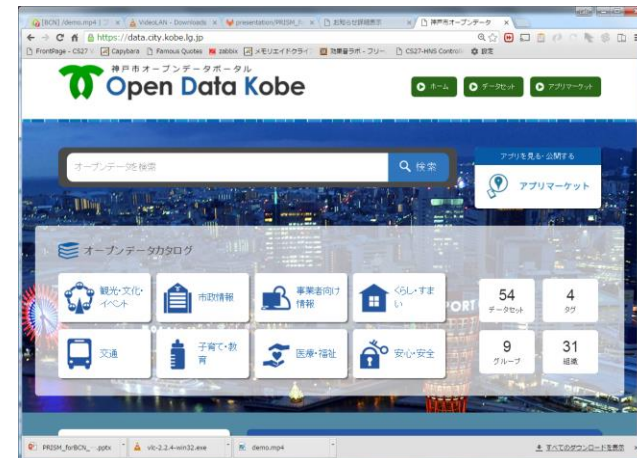
Hyogo Bouhan Net (Hyogo Prefecture Police)

- Online incident report by e-mail and Web
- Unstructured text in HTML
- PRISM applies text-mining and stores in DB
 - [Date, Time, Location, Address, Title, Contents]
- Use structured incident data for service

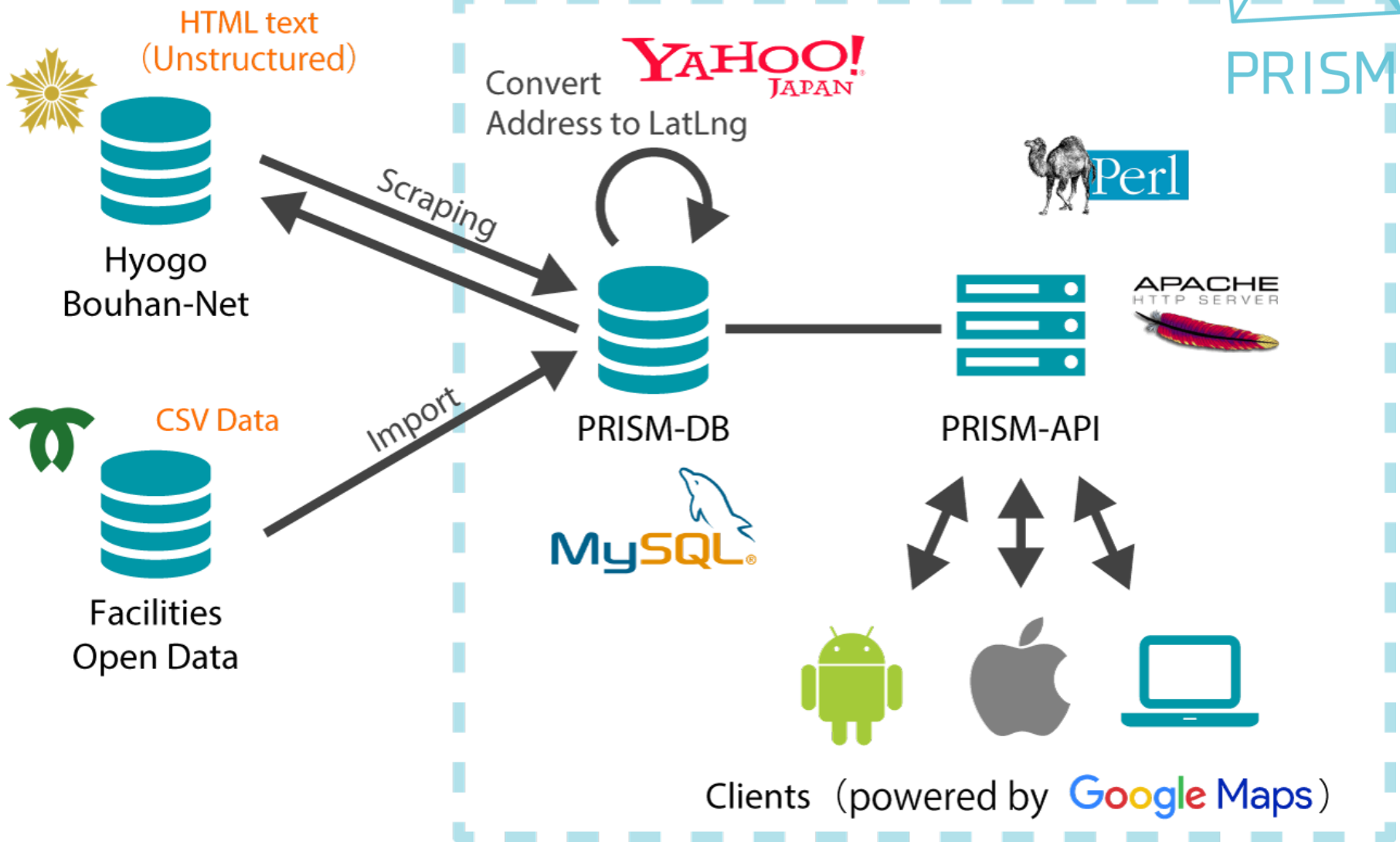


Institution Open Data (Kobe City)

- Fact data of public buildings in Kobe
 - [Name, Address, Lat, Lng, Type, Ward]
- PRISM imports CSV data in DB
- Use as landmarks for user's living area



System Architecture



Time Machine Function



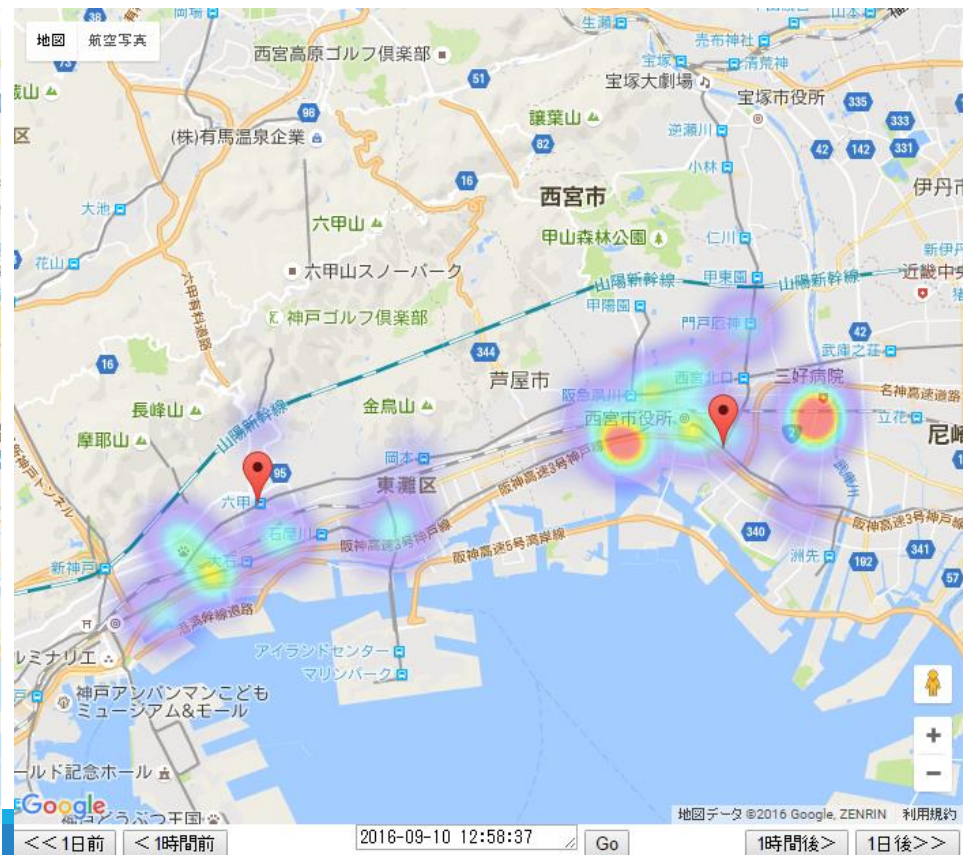
Show past heat map

- Input date and time
- Push the buttons

October 10th



September 10th



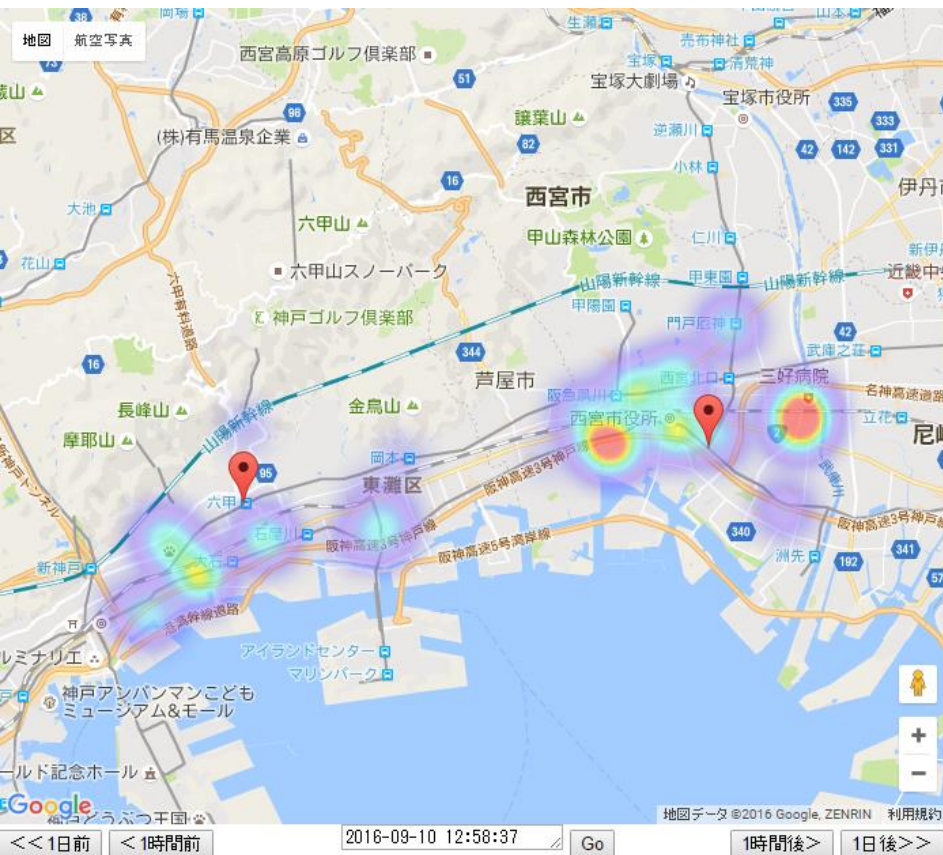
Filter Function

Show a selected type of incidents

- Ex. Show only reports of wild boars



All incidents



Only wild boars

