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FUTURE
INTERNET
PPP



<CONCORD />



OUTSMART

ENVIROFI





The FIWARE platform provides a rather **simple yet powerful set of APIs** (Application Programming Interfaces) that ease the development of Smart Applications in multiple vertical sectors. The specifications of these APIs are **public and royalty-free**. Besides, an **open source reference implementation of each of the FIWARE components is publicly available** so that multiple FIWARE providers can emerge faster in the market with a low-cost proposition.



FIWARE Lab is a non-commercial sandbox environment where innovation and experimentation based on FIWARE technologies take place. Entrepreneurs and individuals can **test the technology** as well as their applications on FIWARE Lab, exploiting **Open Data published by cities and other organizations**. FIWARE Lab is deployed over a geographically distributed network of federated nodes leveraging on a wide range of experimental infrastructures.



FIWARE Ops is a collection of tools that eases the deployment, setup and operation of FIWARE instances by Platform Providers. It is designed to help expand the infrastructure associated to a given FIWARE instance by means of federating additional nodes (datacenters) over time and allowing cooperation of multiple Platform Providers. FIWARE Ops is the tool used to build, operate and expand FIWARE Lab.



The FIWARE Acceleration Programme aims at promoting the take up of FIWARE technologies among solution integrators and application developers, with special focus on SMEs and start-ups. Linked to this program, the EU launched an ambitious campaign in September 2014 mobilizing 80M€ to support SMEs and entrepreneurs who will develop innovative applications based on FIWARE. Similar programmes may be defined in other regions.



Although it was born in Europe, FIWARE has been designed with a global ambition, so that benefits can spread to other regions. The FIWARE Mundus programme is designed to bring coverage to this effort engaging local ICT players and domain stakeholders, and eventually liaising with local governments in different parts of the world, including Latin American, Africa and Asia.

Why FIWARE

Driver	What does FIWARE bring?
Technology	Open specifications backed by open source reference implementations (see [1], [2]) 100+ M€ of investment (2011-2016)
Experimental environment	15 cities (7 in Spain) already working on setting up a connection to FIWARE Lab [3] 3000+ cores, 16Tb RAM and 750+ Tb HD will be the free computing capacity provided by the FIWARE Lab Cloud across 16 nodes distributed in Europe
Incentives for creating the ecosystem	52 partners, 13 countries (just FIWARE) 100 M€ devoted to fund entrepreneurs in 2014-2016. Additional opportunities in Horizon 2020. 6,2+ M€ devoted to dissemination E-learning Platform[4]
Global footprint	FIWARE Lab nodes in Mexico and Brazil. Conversations between EC and public authorities in Mexico and Brazil to explore collaboration opportunities

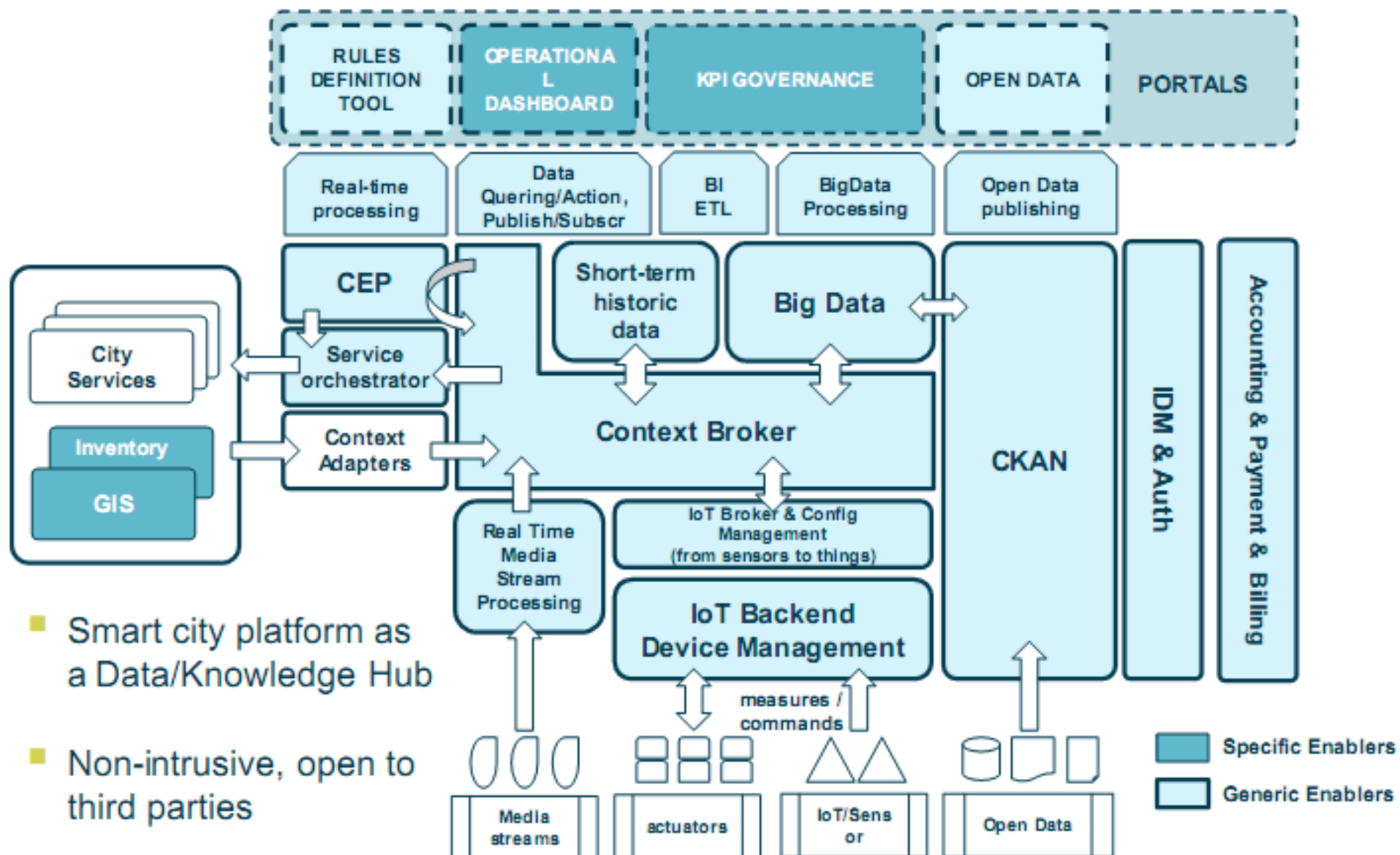
[1] – http://wiki.fi-ware.org/Summary_of_FIWARE_Open_Specifications

[2] – <http://catalogue.fiware.org>

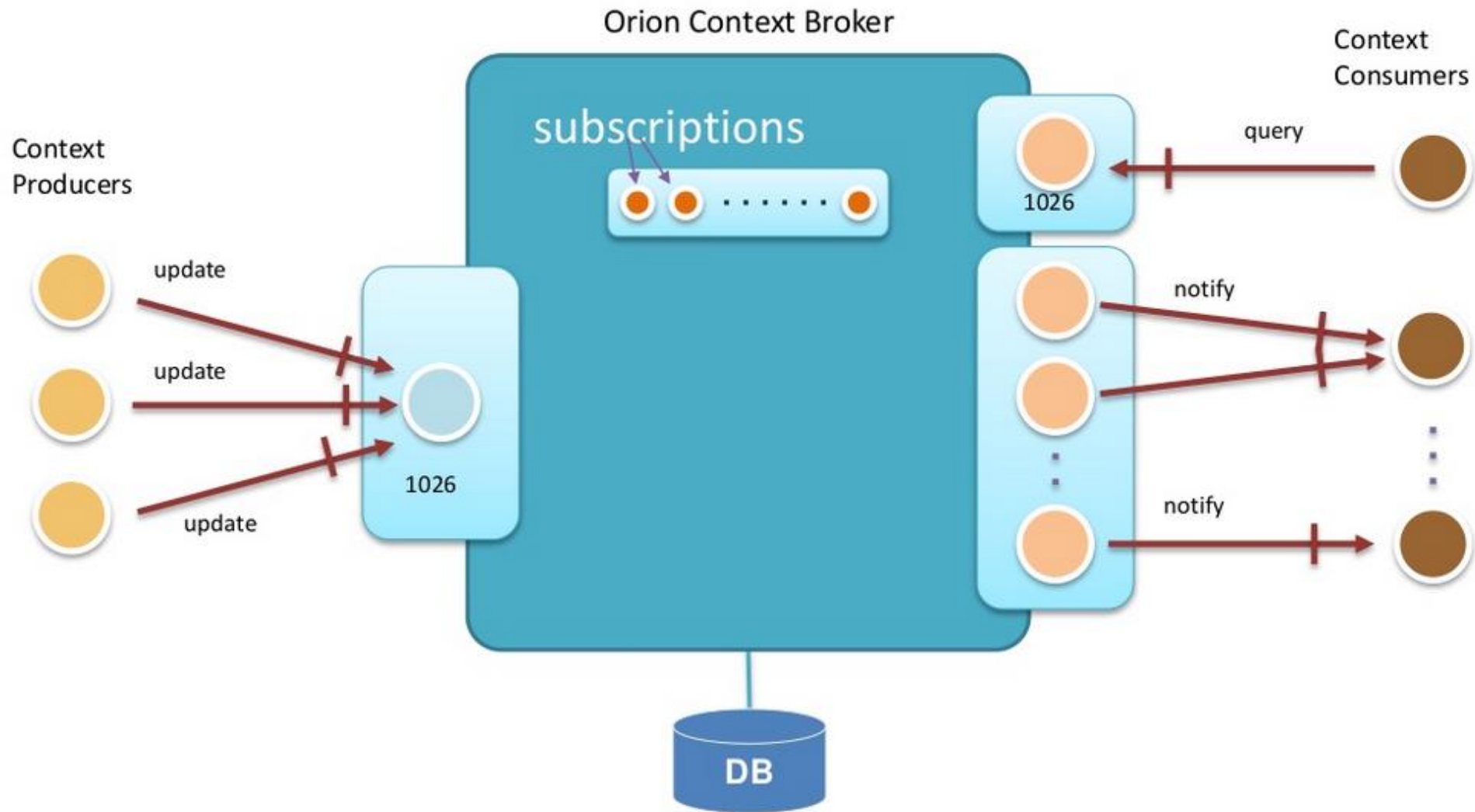
[3] – <http://laccount.lab.fiware.org>

[3] – <http://edu.fiware.org>

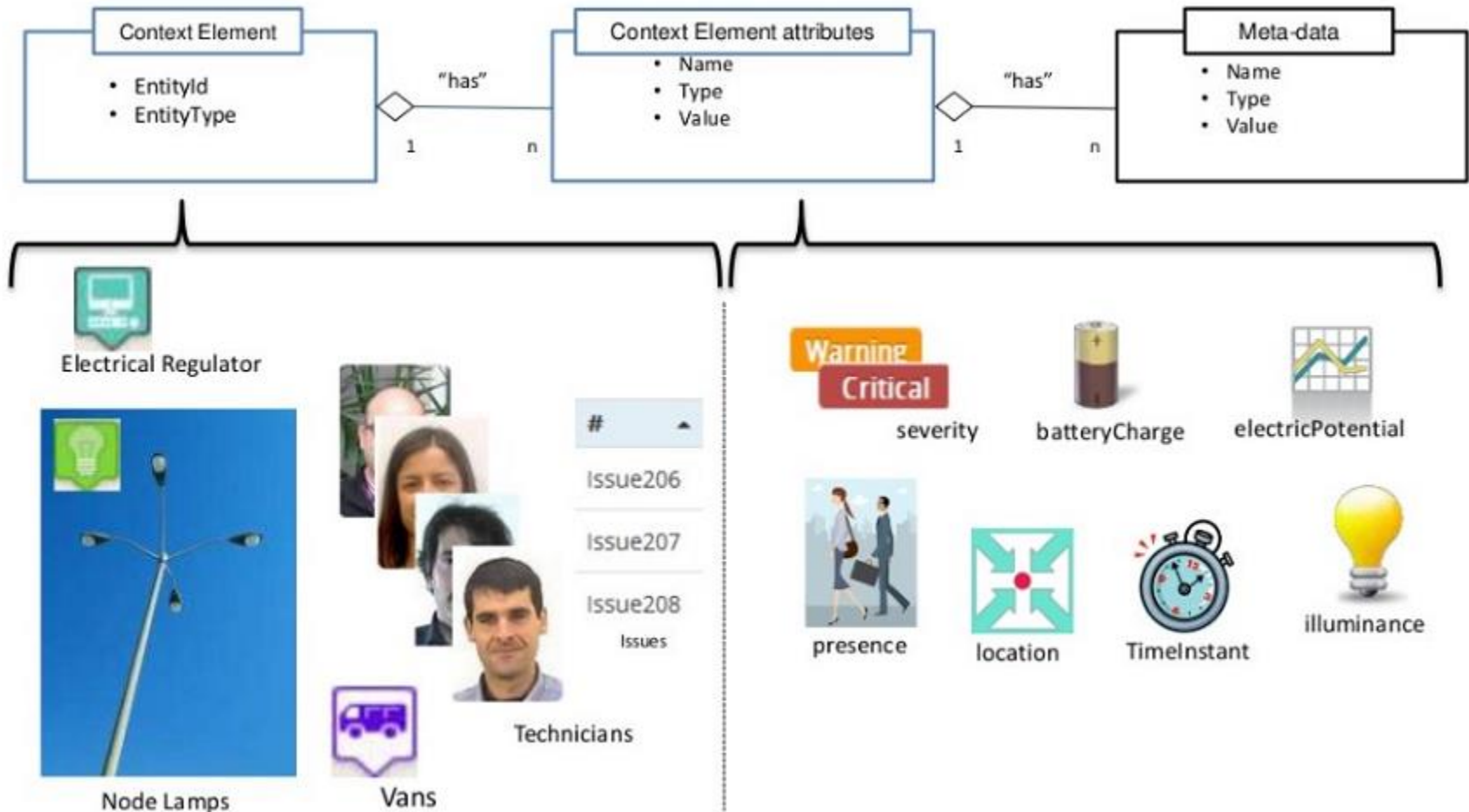
Example: Smart City platform



Orion Context Broker in a nutshell



NGSI 9/10 Information model



Orion Context Broker Basic Operations

Entities

- GET /v1/contextEntities/{entityID}
 - Retrieves an entity
- POST /v1/contextEntities/{entityID}
 - Creates an entity
- PUT /v1/contextEntities/{entityID}
 - Updates an entity
- DELETE /v1/contextEntities/{entityID}
 - Deletes an entity



Orion Context Broker Basic Operations

Attributes

- GET /v1/contextEntities/{entityID}/attributes/{attrName}
 - Retrieves an attribute's value
- POST /v1/contextEntities/{entityID}/attributes/{attrName}
 - Creates a new attribute for an entity
- PUT /v1/contextEntities/{entityID}/attributes/{attrName}
 - Updates an attribute's value
- DELETE /v1/contextEntities/{entityID}/attributes/{attrName}
 - Deletes an attribute



FIDEMO: City

Integration:
Context Broker & WebUI, POI, ...



What's this FIDEMO?

- FIWARE demo integrating GEs across chapters
- Concrete visual easy to understand end user service
- Scenario: City of Helsinki
- Available as a base & example for smart city apps
- <http://130.206.81.111/fidemo/> - <https://github.com/playsign/fidemo>



Integrando-se com Fiware!!!

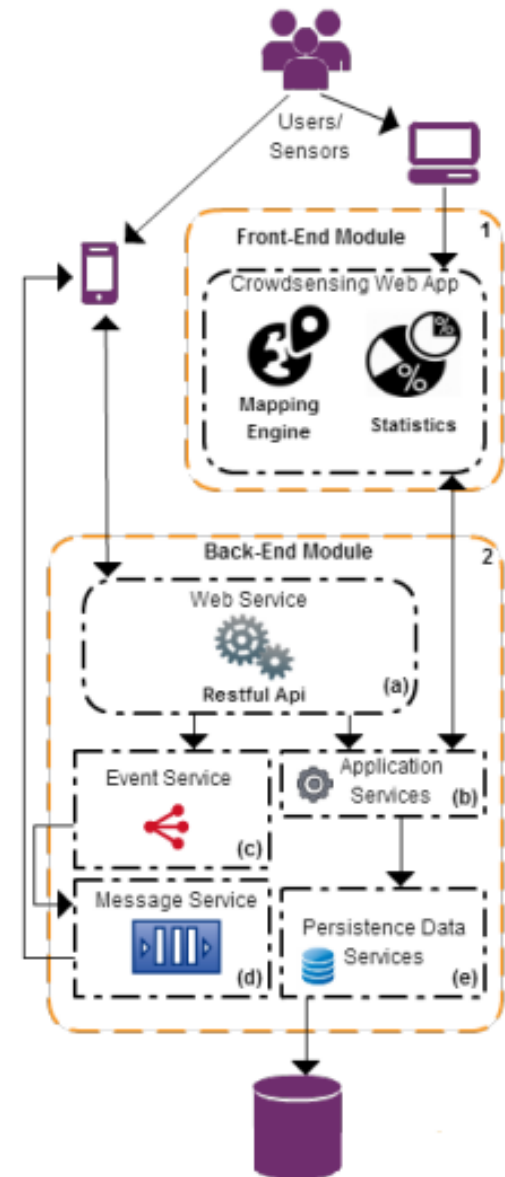




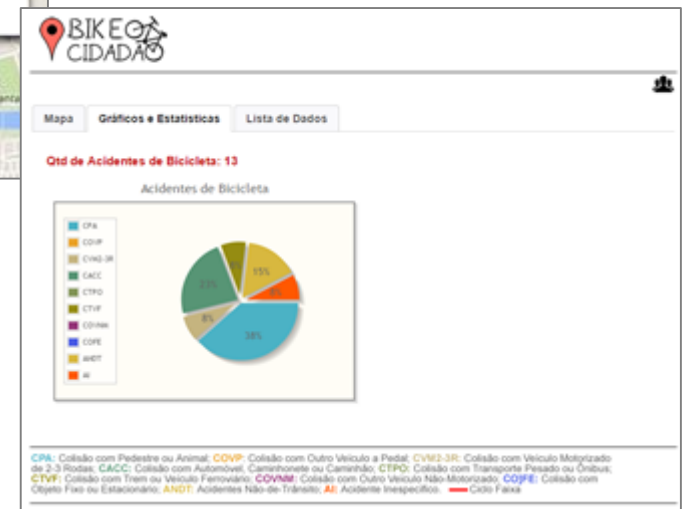
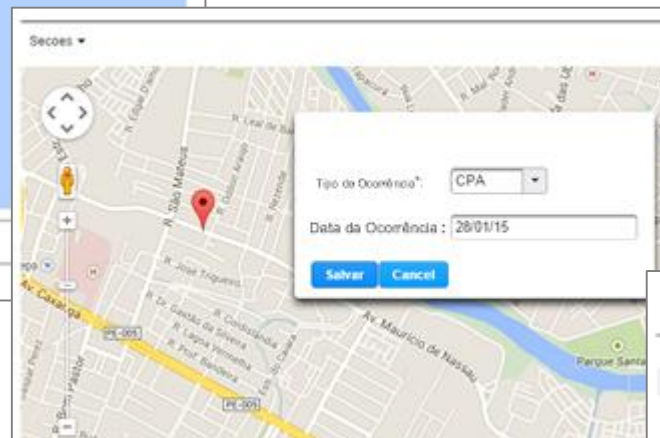
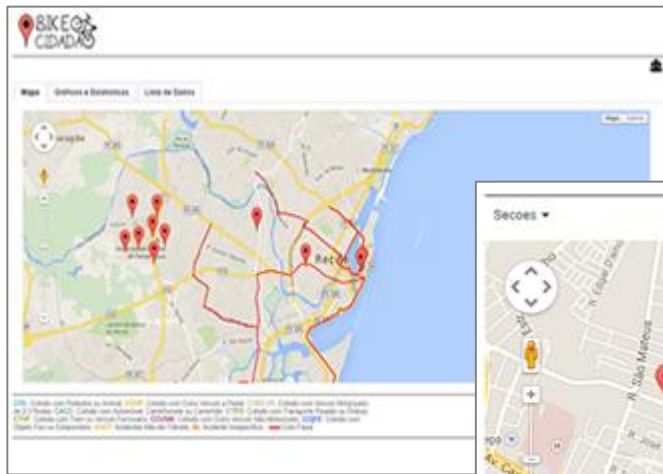
- ✓ Achar pontos de interesse nas proximidades.
- ✓ Visualizar em tempo real informações.
- ✓ Relatar problemas e visualizar pelo sistema de Mapas.
- ✓ Integrar diferentes fontes de dados.

Visão Geral

- Front End Module:
 - Crowdsensing
- Back End Module:
 - API de serviços restful



Front End Module



CPA: Colisão com Pedestre ou Animal; **COVP:** Colisão com Outro Veículo a Pedal; **CVM2-3R:** Colisão com Veículo Motorizado de 2-3 Rodas; **CACC:** Colisão com Automóvel, Caminhonete ou Caminhão; **CTPO:** Colisão com Transporte Pesado ou Ônibus; **CTVF:** Colisão com Trem ou Veículo Ferroviário; **COVNM:** Colisão com Outro Veículo Não-Motorizado; **COJFE:** Colisão com Objeto Fixo ou Estacionário; **ANDT:** Acidentes Não-de-Trânsito; **AI:** Acidente Inespecífico. **—** Ciclo Faixa

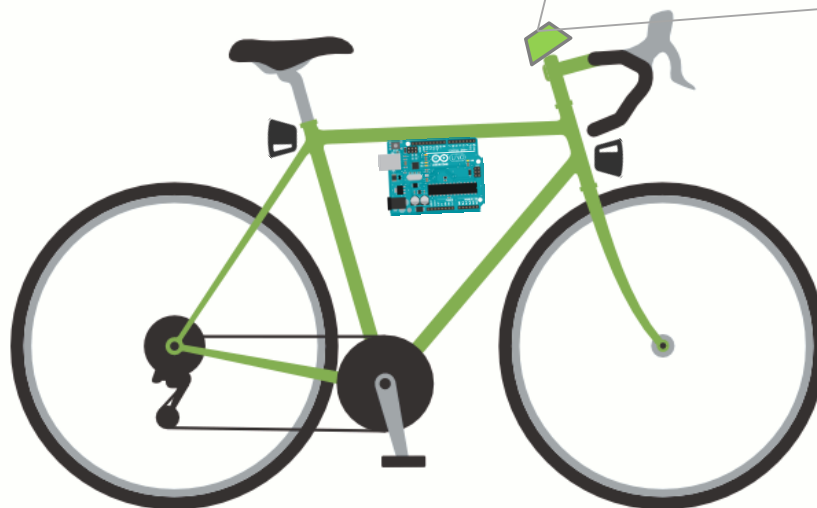
Via Segura



26°

Céu limpo

56 Calorias



Acidente a
25 metros


26°
Céu limpo
56 Calorias







+



Achar pontos de interesse nas proximidades



Obrigado!

...Duvidas!?