A Smart City platform to manage information and data in smart environments

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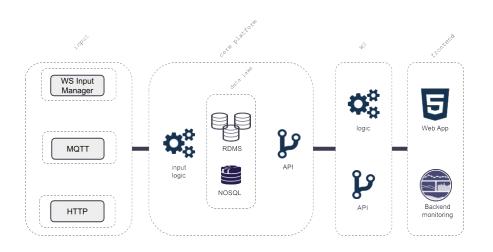
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UBIquitous Digital Platform

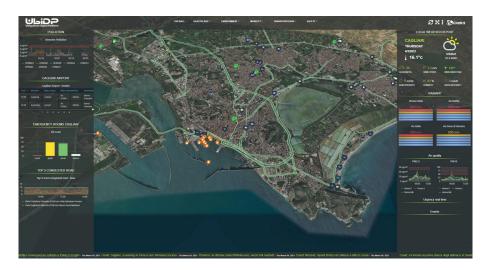A technology platform to plan, operate, and manage the city life and complex scenarios.

Monitors city operations so professional staff can stay informed and take decisions

* Accelerates emergency response with cross-agency collaboration

* Simulates city operations and facilitates intelligent decision-making with unified city development planning and data mining and analytics

* An open source data system offers personalized, 'smart' data services for citizens

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The architecture of the Smart City platform

The architecture can be summarized into the following four main parts:

1. acquisition
2. persistency
3. processing
4. presentation

Each of these layers heavily is built on Open Source software to have a better and open approach to urban computing issues and openness.

Tematic layers

The specific layers developed so far strongly depend on the dataset available for the city of Cagliari. In this particular scenario they cover information about the following topics:

- tourism
- environmental security and control
- health
- mobility
- management of emergency scenarios

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Conclusions : This platform for Smart City management has been developed for the city of Cagliari, but could be applied to other cities; its flexibility in data acquisition, processing, storing, and presentation allows its application also to other contexts. The platform can promote the governance of smart cities by following new paradigms of collaboration and participation giving a valuable tool to a decision maker to take actions and reactions.

Future improvements: extending it from the level of one city up to a whole region. Another future development could involve innovative solutions for persistence, such as blockchains.

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