

# IDELTA Application Scenario 2: Digital Governance for Smart Cities

Juan Miguel Gómez Berbís

*Departamento de Informática  
Universidad Carlos III de Madrid, Spain  
juanmiguel.gomez@uc3m.es*

## Abstract

*Digital Governance and city management, one of the major aspects of e-democracy, is one of the most outstanding society disruptors at present. The combination of Internet of Things (IoT) technologies with Smart Contracts based on cutting-edge Blockchain platforms could significantly change Smart Cities.*

## 1. Introduction

Digital democracy is the combination of information and communications technologies with politics which allows to generate spaces for dialogue and social reflection, strongly involving the private, political and institutional sectors. The platform described in this paper has as its fundamental objective the analysis, design and prototyping of a Digital Governance and City Management Platform where different members of a community (or city) can effectively change and revolutionize how cities, regions and town hall are currently managed and governed, changing society by itself.

The platform intends to obtain the following objectives: implement a platform for journalism / digital activism, which allows effective control of the actions of public authorities; reach a scope of action in the platform which is not generalist but is carefully selected and oriented; build a tool where journalistic work is perceptible, providing the platform with a component of professionalism and reflection that is expected to be distinctive with respect to other platforms of social activism; allow intensive and constant collaboration with certain traditional media; obtain public information, backed by the different transparency regulations of the different public powers; develop and generalize codes of good practices that allow to govern interactions with public institutions; prepare metrics that allow evaluating the social, economic and / or political impact of the platform; become a catalyst and a meeting point for numerous other initiatives to monitor political action; analyze the different receptivity of certain social

segments, and to guarantee the impartiality of the platform's political orientation.

## 2. Use Case

Digital Governance can be traced over three major aspects:

- a) Incidences: Smart City Management is mostly based in finding problems or situations where a reaction is necessary to come back to a previous stage: damage in the city infrastructure, potential fires or other type of disasters, included natural ones that might arise encompass some of the most significant.
- b) Voting and Decision-making: It is generally assumed that the emergence of phenomena of institutional nature as well as corruption in the same context is retributed to the opacity, or lack thereof, of certain public institutions in the eyes of an average-going citizen. Votings and open decision-making can change this situation and turn it around.
- c) IoT Infrastructure Interaction: Current IoT Infrastructure deals with the integration and interoperability among the different ways of devices in IoT such as RFID, sensors and actuators (located on the bottom of the architecture) with the citizen devices (normally, smartphones) which could empower their interaction.

## 3. Conclusions

In this use case we present Digital Governance by empowering every citizen achieving: a) city incidences, problems and catastrophes management;

b) automating, rewarding and turning voting into real decision- through a particular type of token for Smart Cities Management, and c)interacting with the Smart Infrastructure as never seen before activating Dapps (or Distributed Applications) on the Ethereum blockchain.