



Idea^s

SAMI



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Detection of water leakages and network monitoring in urban contexts

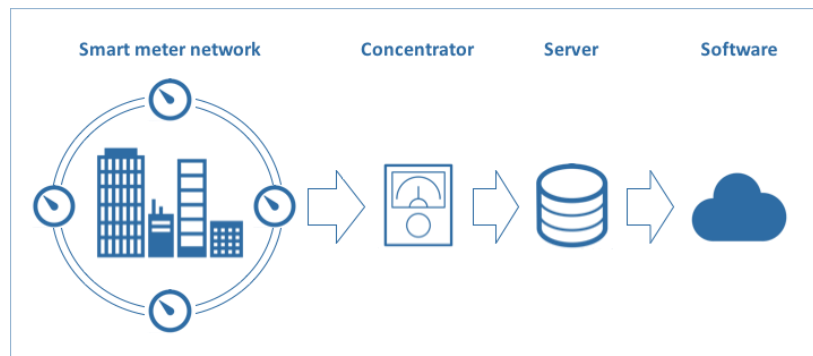
Challenge: Water leakages detection

Proposed by: 

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Problem: Water leakages can be divided in pipe leaks and unmeasured water supply. Both types of leaks create major financial losses to water utilities and are not subject to regulation other than management decisions by utilities. Leaks, apart from financial losses, decrease the drinking water available in a specific area. This shortage is particularly important in water scarce regions.



Solution: Composed of a Hardware (Smart Water Meter) and a Software (Data Analysis) to allow water utilities to collect real time data (pressure, water flow) through our AquaSmart water meters which will replace current old and inaccurate ones. These data are collected using a proprietary communication technology that uses radiofrequencies to send the encrypted data to a local data concentrator. The concentrator is then connected to the water provider server with a GSM connection. A software analyzes real-time water volumes and correlates data to find leaks prone areas. Water utilities can firstly get a more accurate measure of supplied water and, additionally, they can more easily identify intervention areas.

Objectives: *Allow water utilities to increase revenues by using a more accurate water meter.
Decrease water utilities losses by allowing them to more easily identify leaks.*

Vision:

- June 20th : Prototype of the proposed architectural solution. Real time data logging of water consumption and leakages.
- 20 months: Water networks optimization through real time pressure control and introduction of more precise smart meter (even for very small water flows).
- 20 years: Water globalization. Management and optimization of interconnected networks.