

Internet of Things, Geospatial Information, and the OGC SensorThings

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Short Abstract

In the near future, billions to trillions of small sensors and actuators will be embedded in real-world objects and connected to the Internet forming the Internet of Things (IoT). The basic premise of the IoT is that everyday objects or devices can sense their environment, collect information, and communicate and interact with each other. By capturing this collective data, sensor-gathered IoT information can be accessed by multiple applications on multiple devices from any physical location. By populating our environment with real-world sensor-based devices, the IoT is opening the door to exciting possibilities for a variety of application domains, such as environmental monitoring, transportation and logistics, urban informatics, smart cities, as well as personal and social applications.

I will firstly present the Internet of Thing vision in a geospatial context and argue that geospatial information is essential in every aspects of IoT, but is overlooked in most of today's IoT information systems. Then I will present the latest OGC sensor web standards, the SensorThings. The OGC SensorThings enables geospatial information and sensing/controlling capabilities in IoT. Finally, I will show a live demonstration of the SensorThings.