


Pole Star indoor positioning & proximity detection
Fusion & self-learning: scalability and controlled QoS

PLACE conference, London

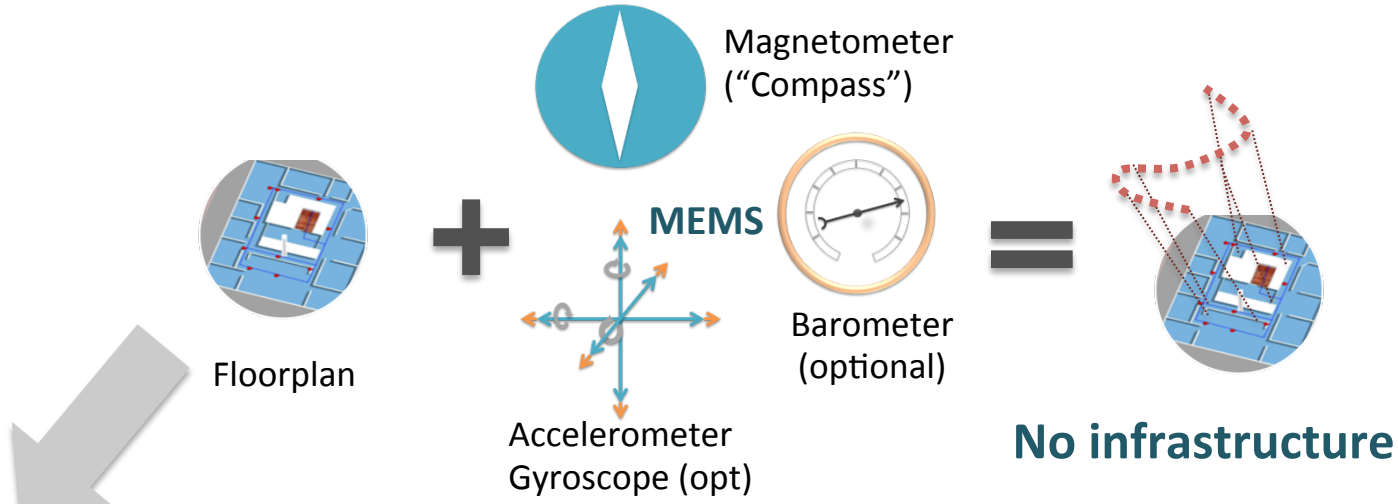
November 17th, 2014

POLESTAR
TRACING THE WAY

Customer requirements

- Expected service
  - Indoor positioning
  - Proximity detection & micro-location – **Background operation even in the pocket**
- Scalability
- Cost efficiency
- Device compatibility
  - Immediate! = automatic device calibration
- Performances
  - Fast & reliable first fix
  - Refresh rate ~ 1s – no bottleneck
- QoS control
  - Ability to forecast accuracy
  - Ability to act on the level of accuracy
  - Simple engineering
  - Maturity…

Fusion: accuracy, scalability, QoS control, compatibility



Scalability

Accuracy

Fusion

Signals of opportunity

Third party Wi-Fi access points or networks, unmanaged or managed

"Free of charge"!

Fast, accurate first fix

Controlled QoS

4.0 Low Energy (BLE)

Low cost beacons, low cost installation

3 beacons for 10,000 sqm in average

= 0.5 to 1 k€ per 10,000 sqm (beacon + installation cost)

QoS control ++

Automatically launch / wake-up apps

Next generation signal of opportunity?

GPS

Outdoor

Scalability with Blind Crowd Sourcing: self-learning technology

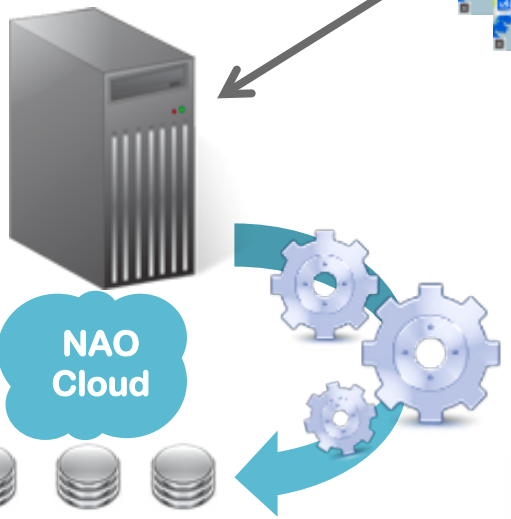
Fingerprinting done by users without any interaction with them

- Traditional location technologies require field staff for their setup and maintenance
- Crowd sourcing technology enables to setup and maintain our NAO Campus location service with no field staff

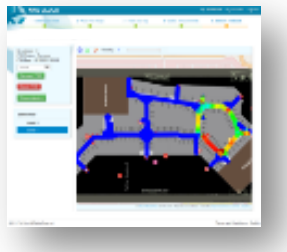
Data collection in the background from consumer's devices without any user interaction

naocampus INDOOR POSITIONING

Input : floorplans of the target venues

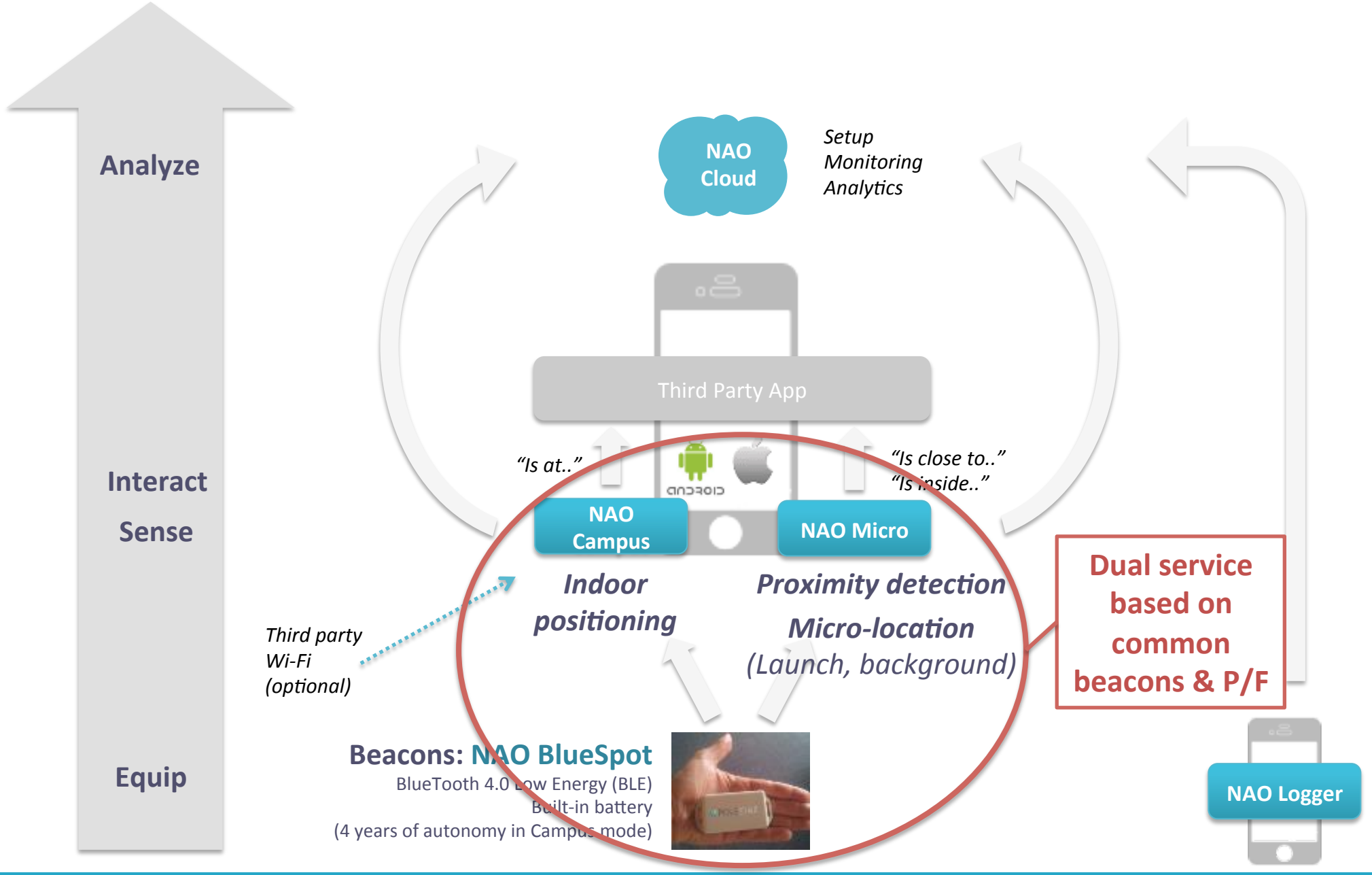


Our blind crowd sourcing algorithm creates and updates Positioning DataBases in the flow, with quality monitoring



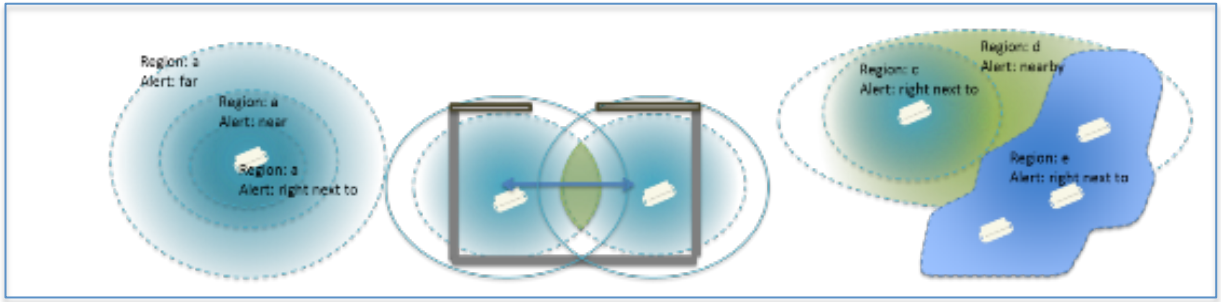
Positioning DataBases are synchronized to NAO Campus inside user's devices in order to activate or improve the service on the target venues

Our offering



NAO Micro: designed to engage and capture data for analytics

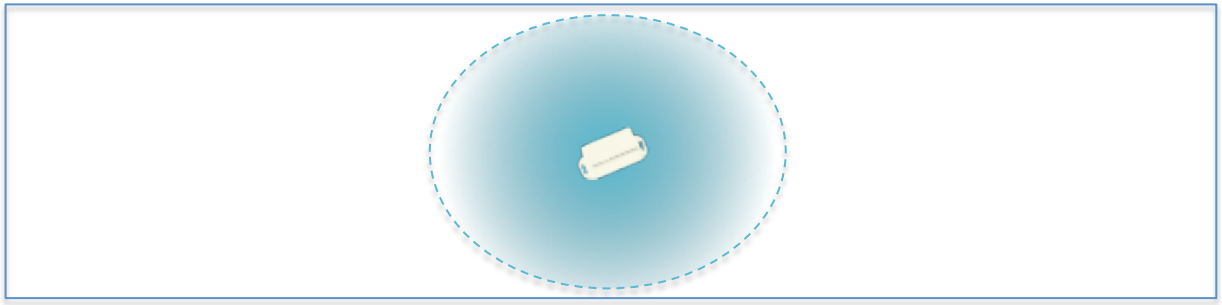
Smart detection rules



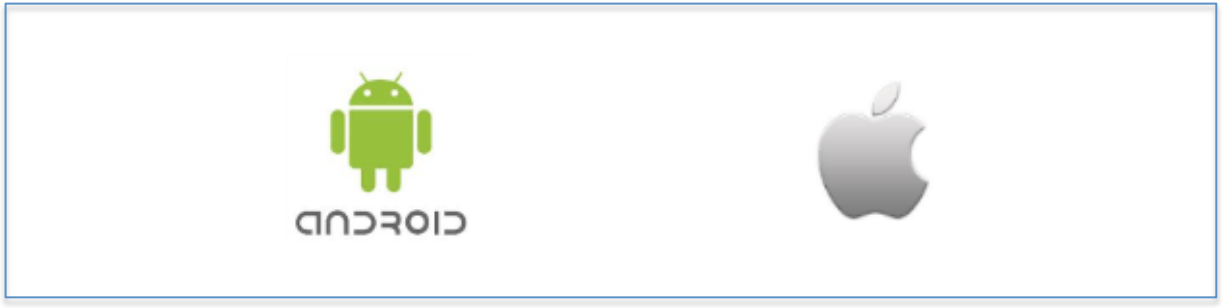
Regions and rules managed from the cloud

Extended battery life

Encrypted ID: no spoofing



Compatibility

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