Indoor Localization Supporting Smartphone Advertising

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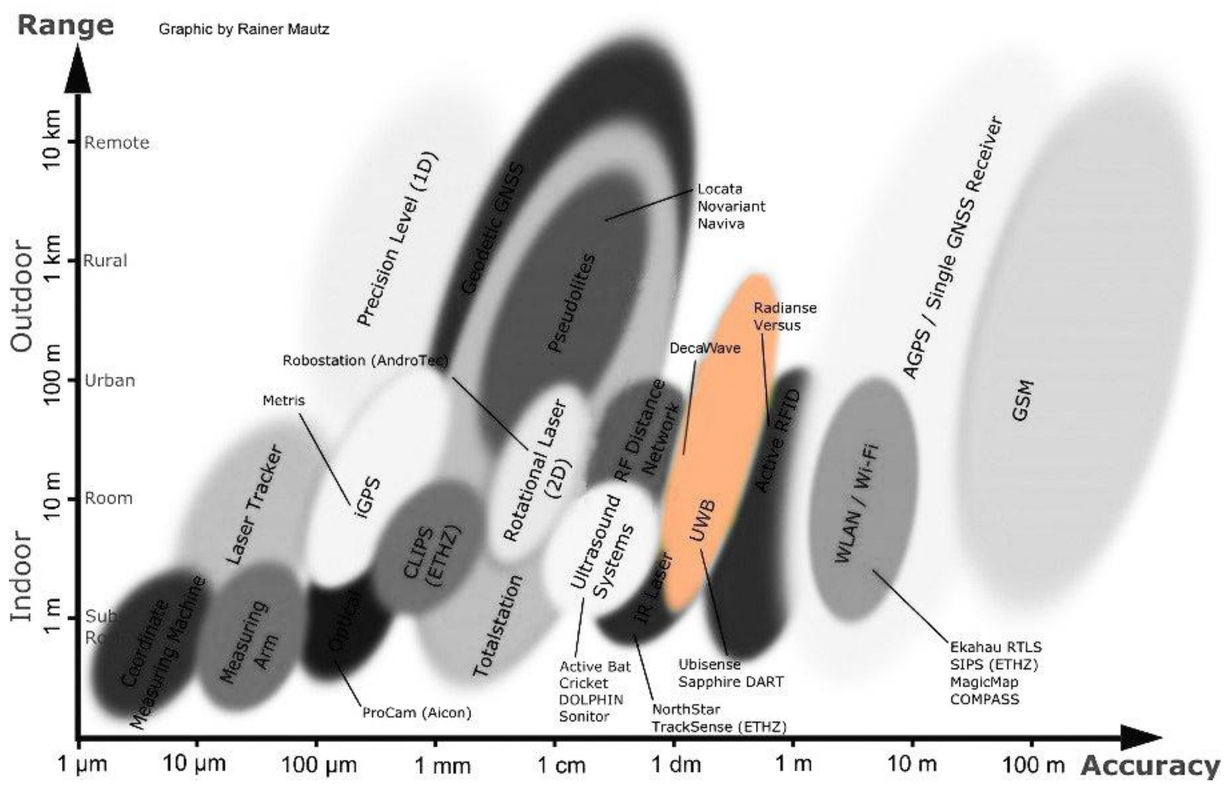
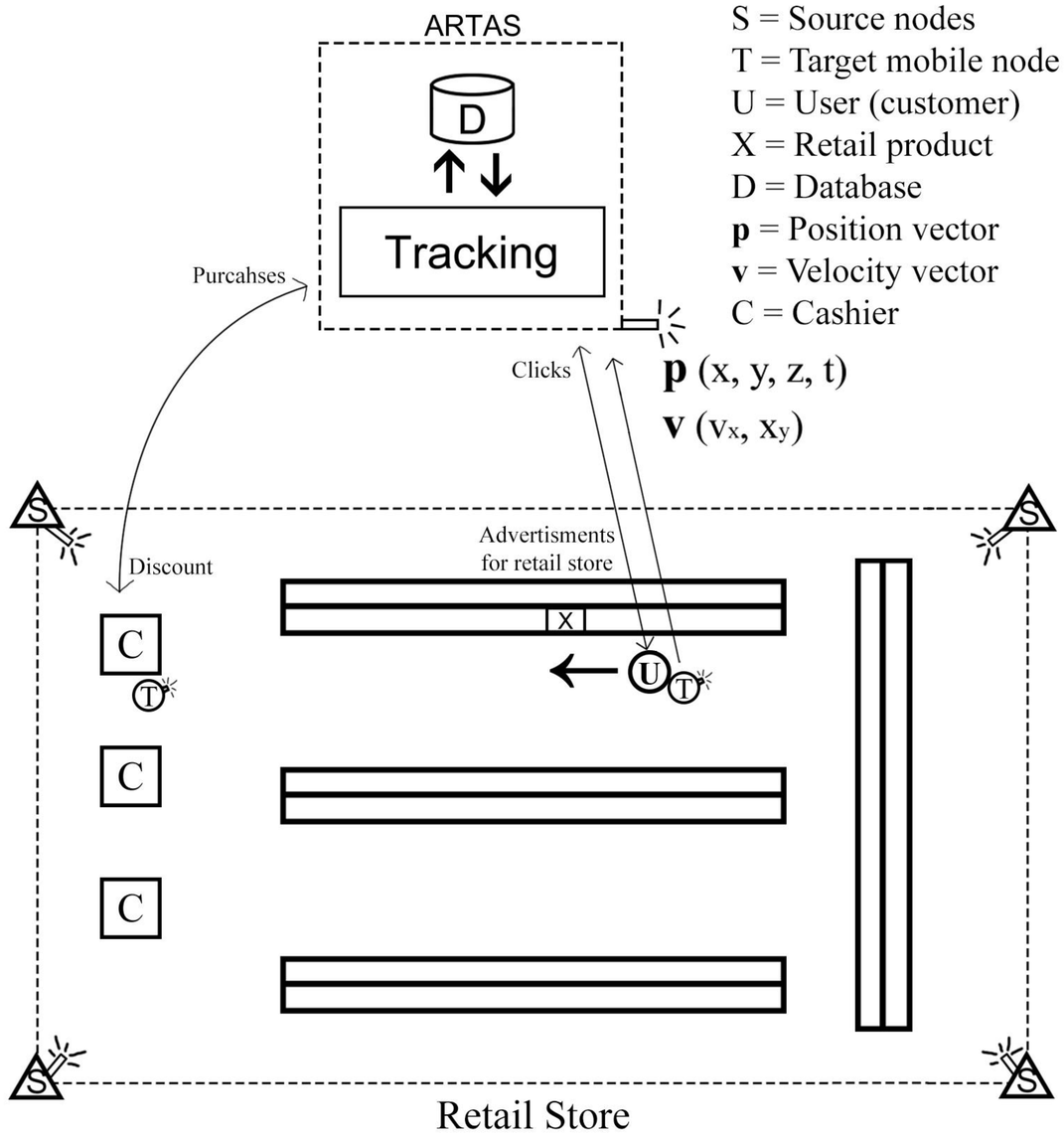
Motivation



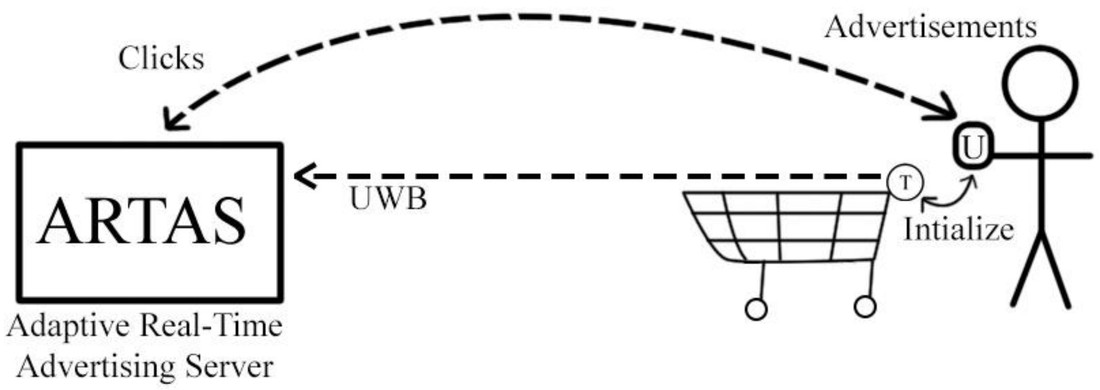
http://www.mautz.net/cv/mautz_presentation_mcg.pdf

- Highly accurate, large range, and cost effective localization system
- Ultra-Wideband (UWB) systems are low power, cost effective systems suitable for indoor localization
- Provide real-time advertisements for items in front of shoppers

System Overview



Objectives



1) How well can shopper movements be predicted using UWB in non-line of sight conditions?
2) How far ahead should advertisements be sent to shoppers?
3) How can a server side be built to efficiently deliver and maintain advertising to hundreds of shoppers for thousands of products?
4) How can the success of location based advertising be measured?

Technology

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uNeMo Tag
Dimensions: 75x50x17mm
Inertial Measurement Units

Anchor
Dimensions: 80x60x36mm
Accuracy: 1 dm
Power: 300 mW

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