Towards Safe City
why standards are important

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A Safe City is a Universe of Disciplines, Sensors & Data
Information & Sensors Direct the Environment

Smart Security
Smart Energy
Connected Citizen
Intelligent Transportation
Smart Healthcare
Sensors
Shaping the Way We Think

IoT is a Platform, not the Solution

- Foresee the Change
- Constantly Improve
- Think in Increments
- Respect Privacy
- Transform Processes

Outcome Oriented

- Visible
- Seamless
- Insights
- Safe & Secure

© Hexagon Safety & Infrastructure
Hexagon’s Smart City DNA

Actionable Intelligence

Smart
- Security
- Utilities
- Transportation
- Government

Integrated Operations Command Center

Digital City
Now, why are standards so important?

- Keeping that layered picture in mind, we need to transport data and information
  - Vertically
    - From the digital city towards the integrated control rooms towards ….
  - Horizontally
    - From Utilities to Public Safety to Transportation to…
  - Within
    - There is most probably more than one Utility (e.g.) within a Smart City and we need to exchange data and information

- Best way to accomplish: using standards!

- What about sensors
  - There are standards for sensor networks, but most sensor data is rather simple
What do we do today?

• Using existing standards
  • ISO/OGC for spatial data
  • Diverse other standards to transfer data from a to b mostly based on XML – derivates
  • Preventing very descriptive „exhausting“ standards in order to fulfill performance requirements
    • Trade off between openness/flexibility and performance
  • …

• Being very pragmatic
  • Using standards were they are applicable
  • Using web-services / REST interfaces were they are necessary
  • Minimizing 1-1 interfaces as much as possible
  • Monitoring standardization bodies (or participate in) in order to be as flexibly as possible
Working with external “elements”

All Sensors

Decision Support Systems
Exploit Merged Sensor, Contextual & Operational Information

Contextual & Operational Data
Insight: Parking Situation
Insights: The Basis for Decisions
Insights: The Basis for Decisions & Engagement