Traditional sensor network
Semantic Layer

- Sensing layer: uninterpreted streams of sensor event observations
- Semantic layer: interpreted streams of entity-related events
- Application
- User

QoS
Privacy
Stream
Stream
Stream
Stream

Situation model
Domain model

Uninterpreted streams of sensor event observations
Interpreted streams of entity-related events
User asks SATware UI to visualize/connect to a sensor -> SATware UI instantiates a predefined virtual sensor.
Each SATRuntime can be in a different Processing node (PC). SATRuntime is a distributed middleware.
User asks SATware UI to visualize event x from sensor set y -> SATware UI instantiates a predefined virtual sensor. 
> SATware UI receives event tuples and visualizes them

UI: SATware UI agent
GUI: Graphical User Interface
SRC: Source agent (proxy agent that connects to a sensor such as a camera, mote, etc)
ED1: Door Event Detection + estimation of people crossing in each direction (Ronen and Shengyue)
ED2: Area (e.g. room) estimated occupancy