

Bring Your Own Scenario

The goal of this assignment is to build a scenario of a complex service systems that you are going to develop through out the course. The service system in the scenario can be anything but it must include the following parts:

- **Data sources:** data sources can be sensors (e.g., simulated sensors), data marketplaces (e.g., Azure data marketplaces , stream data platforms (e.g., Xively), or your own database-as-a-service.
- **Analytics:** An Analytics Service which will receive data from data sources and perform some data processing tasks. The Analytics Service can support streaming or batch data processing. It produces results which are stored in some data-as-a-service
- **Data Services:** Data-as-a-Service is used to store the results from the Analytics Service as well as data that you obtain from data sources (if needed)
- **Notification:** A Notification Service which is used to send notification to other services or people. Examples of notification could be: “new results are available”, “new data sources are available”
- **Human Services:** People who will receive results from analytics (e.g., via Web portal, mobile device, or email) and decide possible actions (e.g., increase the cost or reduce the response time or increase the sensor sampling) by calling appropriate services.

In the scenario, you should describe the goal of the scenario and the flows of data and control among services. As an example, you can take a look at

- http://www.infosys.tuwien.ac.at/research/viecom/papers/MDMDemo_iCOMOT.pdf
- <http://tuwiendsg.github.io/COMOT/elasticityDemo.html>

The goal is to build your own scenario so you can reuse as much as possible existing software services and data available. From the architecture perspective, certain patterns are common (e.g., having sensors connecting message-oriented middleware, using complex event processing for analytics). However, the “business” aspect of the scenario is yours. In this assignment you do not focus on the architecture design but explain your scenario which includes the above-mentioned parts to achieve a goal of your choice

The report should be limited to 2 pages in IEEE computer society format template

(<http://www.computer.org/portal/web/cscps/formatting>).

The PDF report must be submitted to TUWELL based on the deadline mentioned in TUWEL.