**UBIQUITOUS LANGUAGE**

**Company client**

* A person who has a contract with the utility distribution company for the supply of gas, electricity and water.
* He may or may not decide to adopt the new service proposed by the company.

**User**

* A client of the company who decided to register for the service.
* He/She created an account and required the installation of the infrastructure (sensors + hub).
* Once the infrastructure is installed, he/she can start using the service.

**User registration**

* First process required to become users of the service, to be done once, involving user data collection.
* Users must download the app or enter in the Web App from the Browser.
* Registration requires the possession of an e-mail and a password.
* Registration can be:
  + Approved:
    - the account is created
  + Denied:
    - the user must restart the procedure

**Infrastructure**

* The set of devices that must be installed in order to make use of the service. It consists of:
  + Sensors
  + Hub

**Sensors**

* The devices that are supplied by the sensor manufacturers and that are responsible for measuring the consumptions and collecting data.
* All the data collected by the sensors are gathered by a hub, which will be the “core” of the system, processing and creating the reports.
* Sensors are batteryless, so they do not need to be charged.
* Can be in three states:
  + Active
    - When the client is actually consuming utilities
  + Idle
    - When the client is not consuming utilities.
* Out of service
  + - Need maintenance
    - In maintenance
    - Broken
    - Obsolete

**Hub**

* Processor that gather data collected by the sensors, process them and create reports**.**
* It is installed near the house, they communicate through RTU (Remote Terminal Unit), a repeater with communication capabilities.
* Collects information from RTUs and takes care of transferring them in real time to the centralized system by implementing appropriate transmission, cryptography and security protocols.
* Hub implements a Software to collect, gather and elaborate all the data.

**Consumptions**

* The volume (in cubic meters or kilowatt hours) of the utility that has been consumed by the user so far.
* Measured daily on a monthly basis.
* The expense in monetary terms is also calculated.

**Consumption monitoring**

* The main functionality provided by the service.
* Consumptions are organized per category: gas, water and electricity.
* Consumptions are presented through different data visualization tools.

**Aggregate data monitoring**

* Functionality provided to the company to keep track of the service.
* Company tracks and manages the general consumption state.
* Company gets aggregate consumption data and trends and can perform business intelligence on them.

**Billing model**

* The way in which the service is billed to users.
* The service is subscription based.
* The infrastructure cost (sensors + hub) is charged on the customer within the monthly subscription.
* Billing is produced monthly.
* Billing can be paid directly in the app.