INF-743: IoT Communication Technologies

Activity 5 - Designing for the Internet of Things Mapping Communication Considerations and Concerns

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1. IoT Scenario Agriculture: smart orchard

2. Define the actors for your scenario ("things", end users, company/providers, services) and their roles.

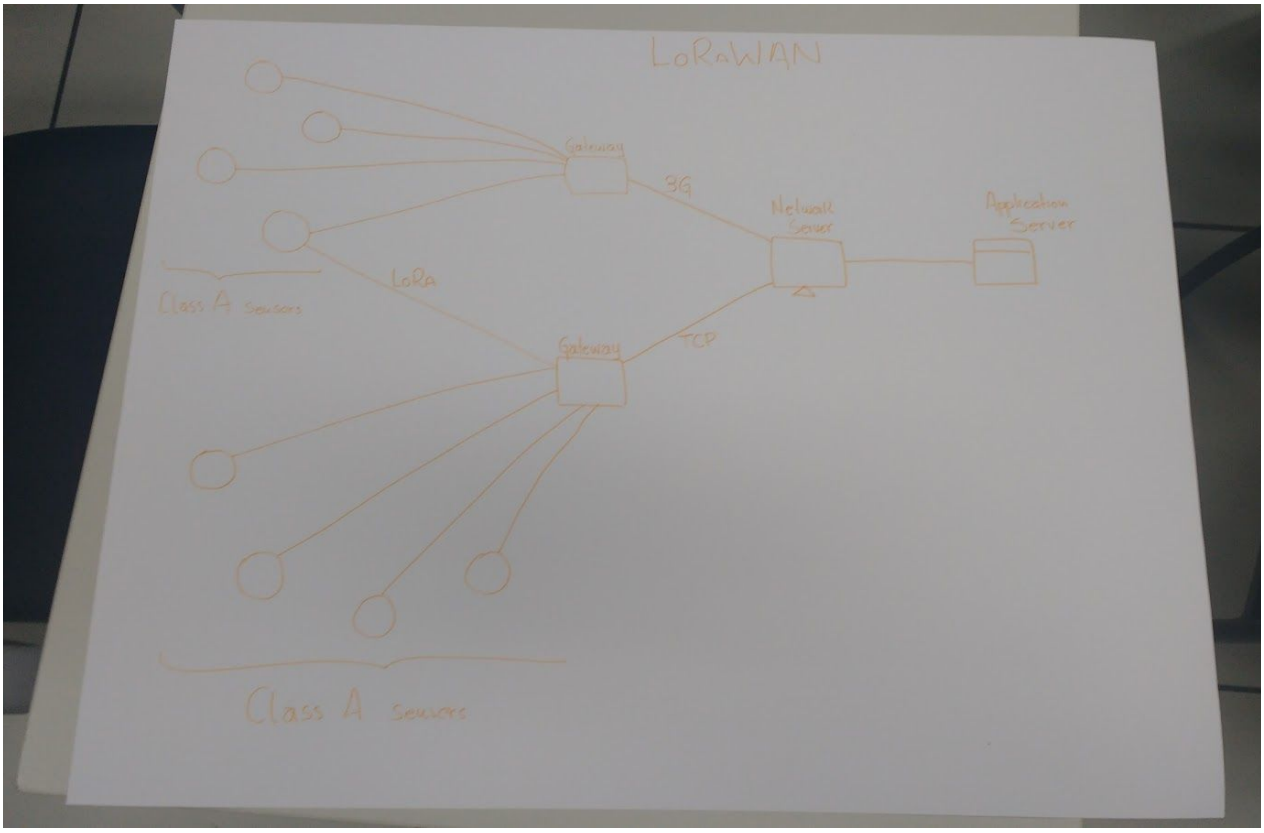
- Things: all the sensors used to monitor the farm (Sunlight sensor, temperature, humidity, level of rainfall, wind, and birds' radars or microphones. Plants status. Workers status)
    - Roles: collect data and send it back to the gateway. Receive settings update.
- End users: the farm administrator and the owner
- Services: Cloud, Web Service with informations

3. Define the communication infrastructure (communication technologies, protocols, network topology).

Communication technologies: LoRa
Protocols: LoRaWAN
Network: WAN
Topology: Star topology
LoRaWAN Devices Types: Class A

Can reach 15Km (https://www.linkedin.com/pulse/iot-fundamentals-lora-lorawan-paul-sabadin)

4. Place the items you have uncovered in a sensible arrangement to illustrate their relationships.



5. Report 5 key considerations and concerns about designing the communication infrastructure for your IoT scenario.

- Battery life
- Range
- Bandwidth
- Free-license radio frequency
- Support to mobility and localization