**Main Functionality**

- The IoT@Work DS provides a unified and standard-based access to information hiding the complexity and variety of protocols and formats.
- The information it stores can be updated at runtime through the RESTful API.
- In the CRF Pilot, for example, some attributes of the Energy Monitoring Device profile is dynamically updated by the OPC UA PLC via an HTTP:
  - POST to the IoT@Work DS when the device is plugged in
  - DELETE when the device is unplugged from the cell.

**Main Advantages**

- The directory service links all the services to the devices, while hiding underlaying standards and protocols. The SOA-like approach to describe functionality allows to invoke services on the fly.
- Access to the devices or services information is provided via QR Codes, NFC tags or RESTful API in different formats.
- The concurrently addeded services to devices lead to an update of the directory service.

---

**About the IoT@Work Directory Service**

The IoT@Work DS uses a semantically annotated data model inspired by the uCode Relation Model where the attributes of a device profile are modeled as subject-relation-object triples. The subject is normally an IoT@Work Thing, the object can be another IoT@Work Thing or a primitive value, and the relation is an object attribute. The DS does not use uCodes for naming data elements.