

# Software-Defined IoT Units for CPSs

- **Virtualizing IoTs** resources under “service units” with **software-defined API** for accessing, configuring and controlling units
- Composing and creating gateways and **virtual topologies** (of multiple gateways)
- Provisioning (atomic and composite) units **dynamically and on-demand** in cloud and edge computing environments
- Providing utility cost-functions that enable **pricing the IoT resources** as utilities.
- **Controlling elasticity** based on resource, quality and cost via software-defined APIs
- DevOps principles, IoT **unit ecosystems**, and high-level programming languages

