Interaction Between Web Clients and *Constrained* Smart Objects

- Many connected devices will be too constrained to run the full HTTP & TLS & TCP & IP protocol stack supported by browsers and web apps
  - Power consumption, processing, bit rate and volume, ...
- Many use cases why direct communication would be useful
  - Sensors, actuators, beacons, tags, ...
  - Accessories, wearables, home electronics, public resources, ...
- The Web platform should adopt a *minimum feasible set* of communication methods to interact with these devices
  - JavaScript APIs, browser support, libraries
- Promising candidates: CoAP, Bluetooth Low Energy
Web Client and Smart Object Communication Options

Communication path:
- Application
  - Browser
  - OS & HW
- Internet (IP, e.g., LTE)
- Local Area Network (IP, e.g., Wi-Fi)
- Gateways (IP or non-IP) leading to:
  - Smart object (1)
  - Smart object (2)
  - Smart object (3)
  - Smart object (4)
- Direct Wireless Communication (IP or non-IP) leading to:
  - Smart object (5)