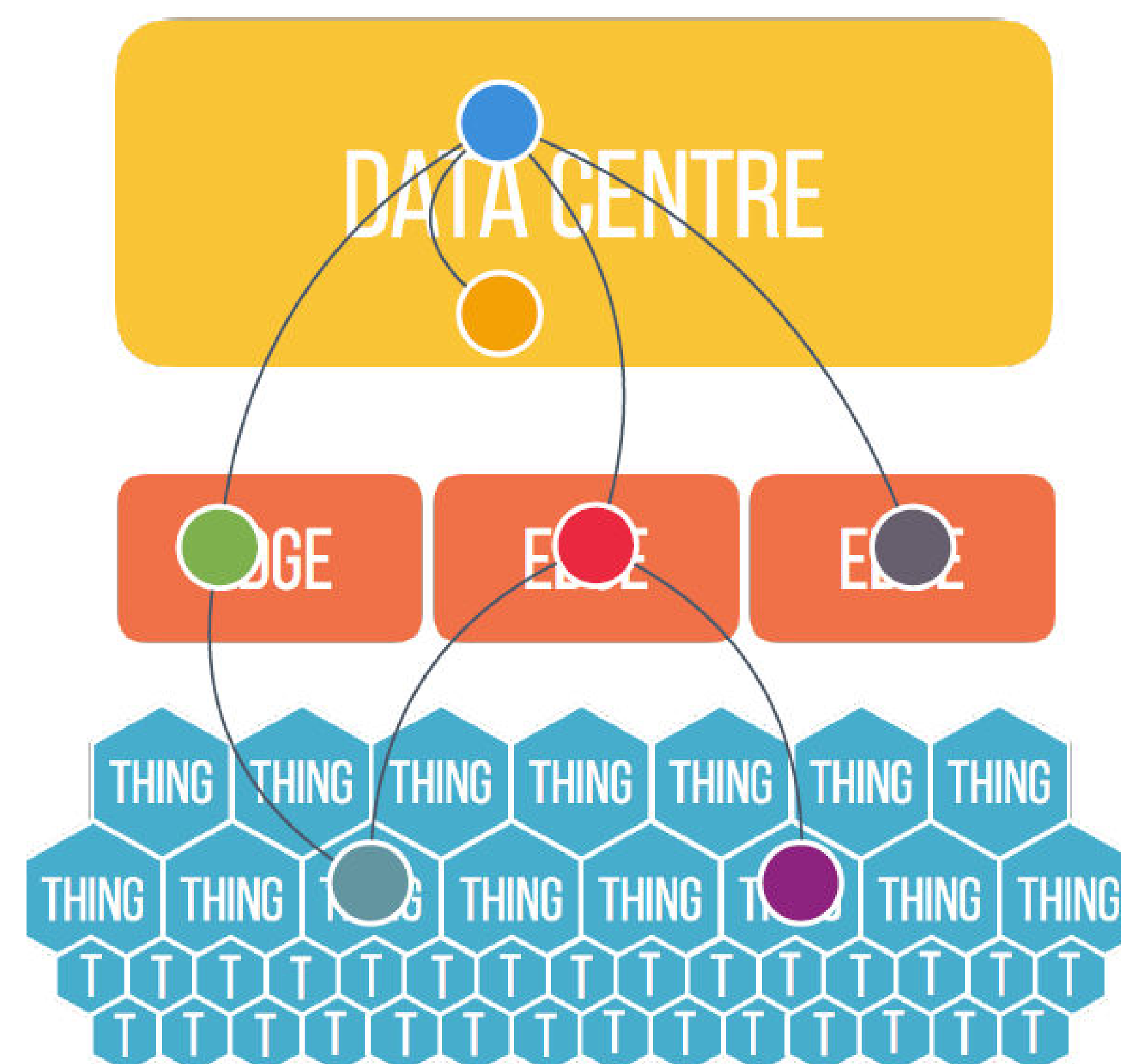


Cloud

Cloud technologies enable robot systems to be endowed with powerful capability by placing an intelligent brain in the Cloud infrastructure

- However, it is difficult to enforce SLAs in the network between the robots and the Cloud
- **Fog** computing distributes resources and services anywhere along the continuum from cloud to things

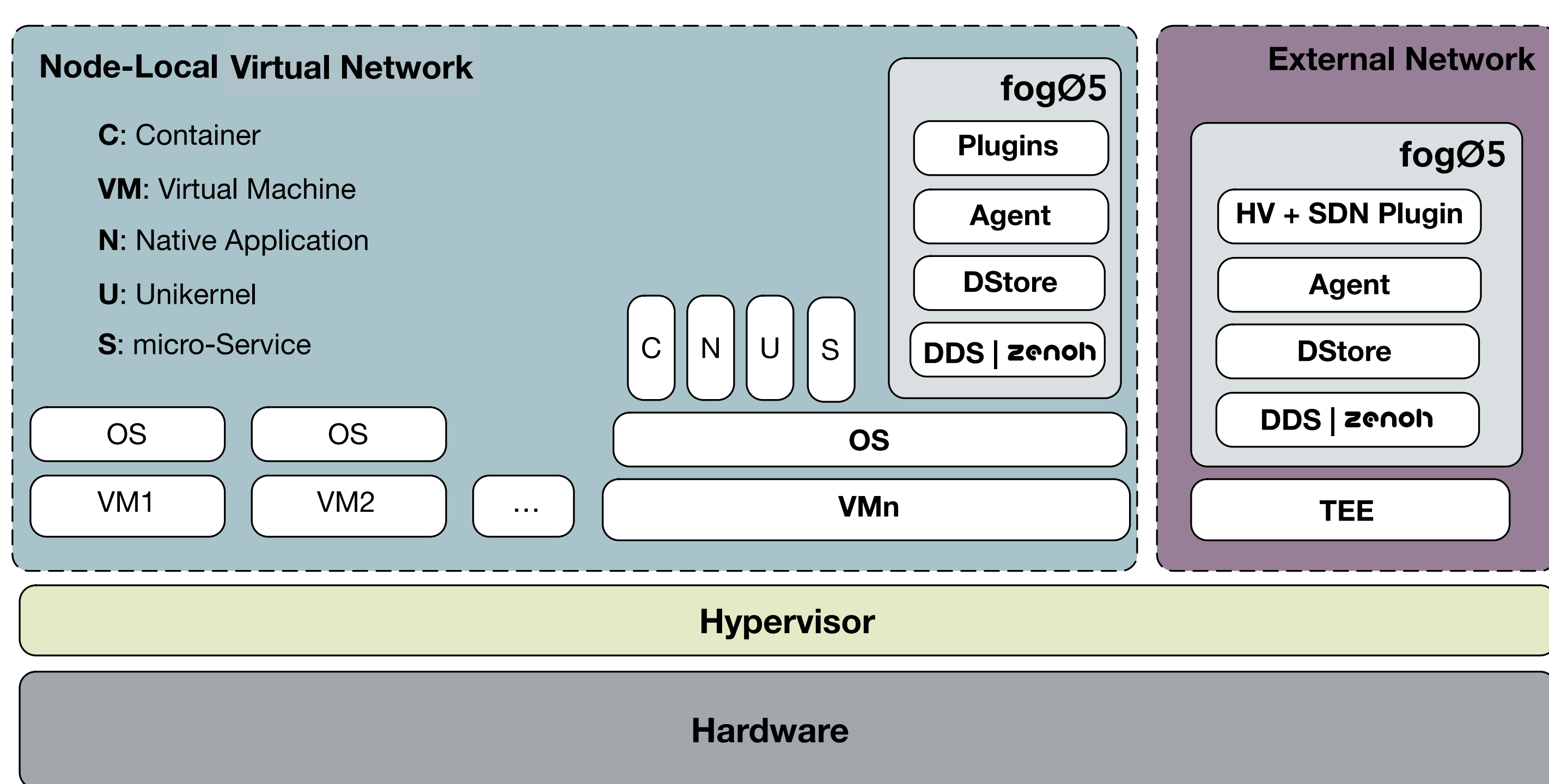
Fog



fogØ5

fogØ5 defines a set of abstractions to unify the compute, storage and communication fabric end-to-end across the cloud-to-thing continuum

- The abstraction used to provision and manage applications, or network functions, is the **entity**
- An entity can be a virtual machine, a container, a unikernel, a binary executable, or a Directed Acyclic Graph (DAG) of entities



Demo

Runtime discovery of compute nodes and relevant hardware capabilities

- Provision of native applications:
 - Wi-Fi access point + Robotic brain
- Fleet formation and remote control of the robots for coordinated and synchronized movement:
 - Latency-sensitive task
 - Robots stop and change the direction of the movement when an obstacle is detected

