

## Docker Containers

- **Shipping container analogy**
  - Arbitrary, self-contained goods, standardized units
  - Containers reduced loading times → efficient international trade
- #1 **Self-contained package** of necessary SW and data (read-only image)
- #2 **Lightweight virtualization** w/ shared OS and resource isolation via **cgroups**



## Cluster Schedulers

- Container orchestration: scheduling, deployment, and management
- Resource negotiation with clients
- Typical resource bundles (CPU, memory, device)
- Examples: **Kubernetes**, **Mesos**, (**YARN**), **Amazon ECS**, **Microsoft ACS**, **Docker Swarm**

Omega, and Kubernetes. **CACM 2016**]

→ **from machine- to application-oriented scheduling**



[[Cloud Computing]]