

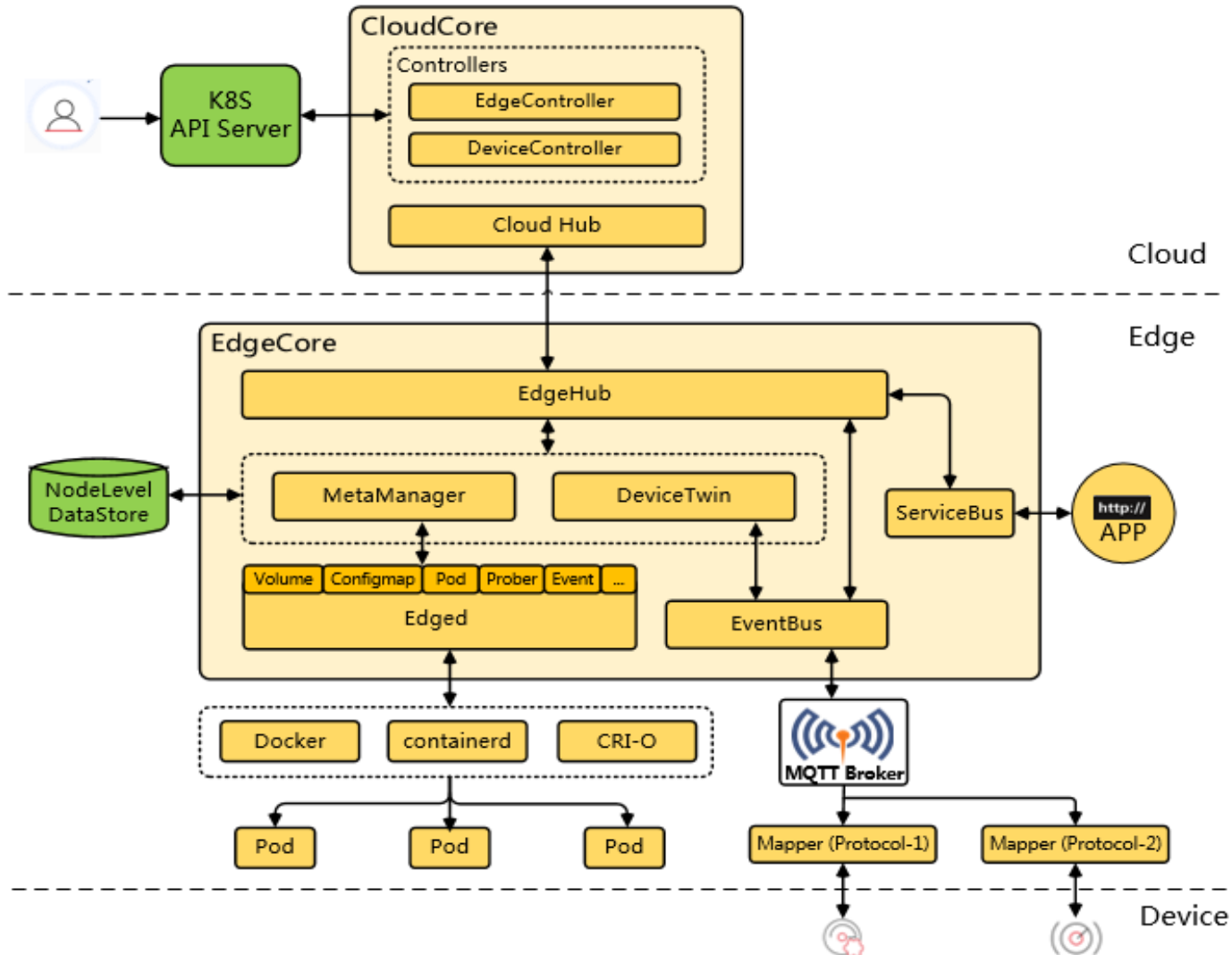
# KubeEdge Open Source Project

Futurewei

Yin Ding

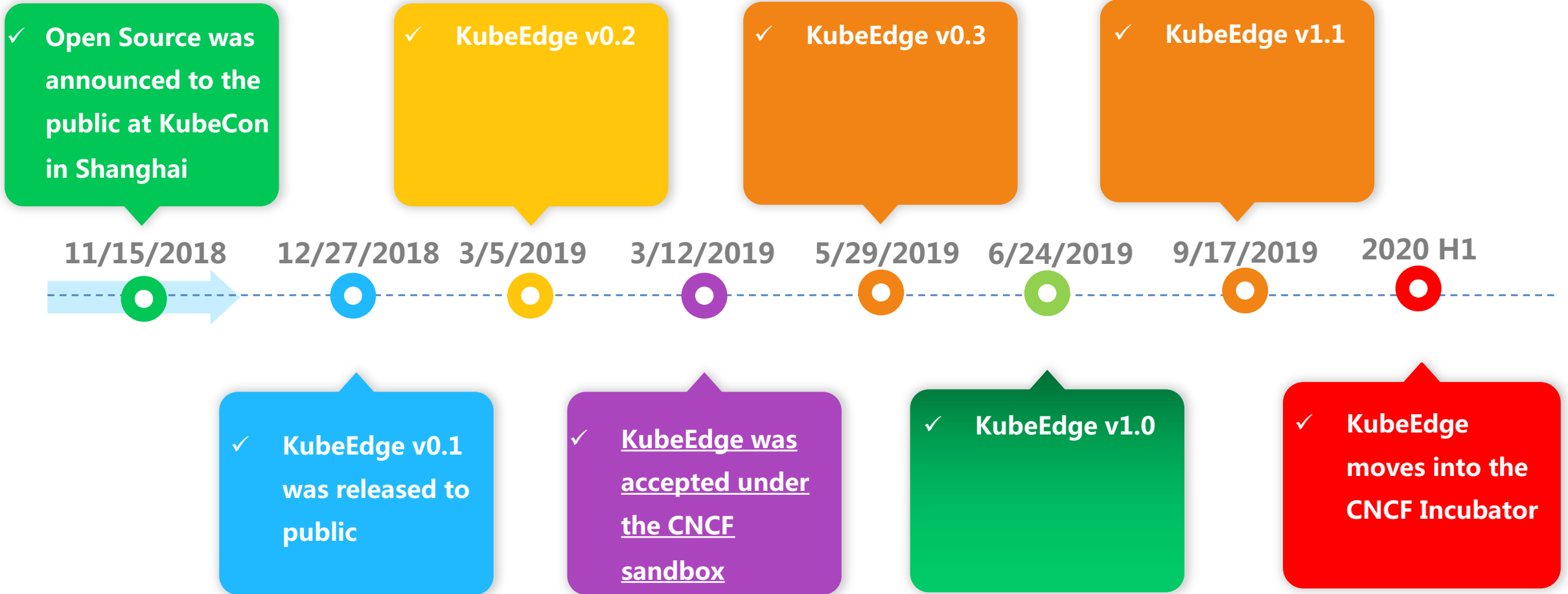
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# KubeEdge Infrastructure



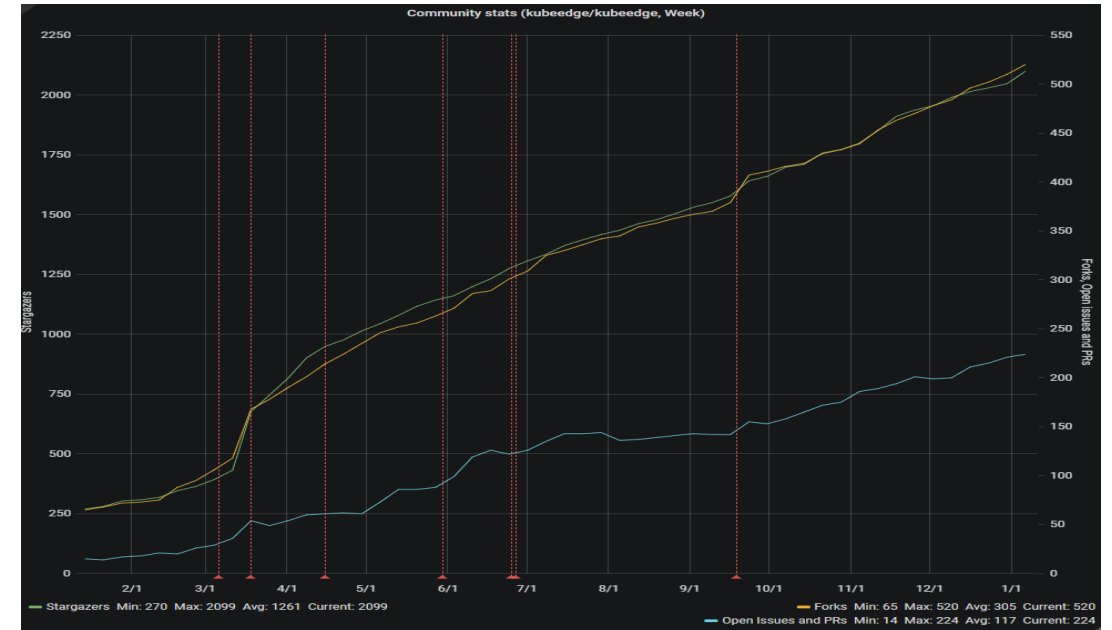
- **Cloud/Edge Nodes Unified management**
- **Device and Edge Application Unified Management**
- **Simplified development:** Developers can write applications, containerize them, and run them anywhere - either at the Edge or in the Cloud - whichever is more appropriate.
- **Cloud-Native, Kubernetes-native support:** Users can orchestrate apps, manage devices and monitor app and device status on Edge nodes just like a traditional Kubernetes cluster in the Cloud. Locations of edge nodes are transparent to customers. Extend K8s To Edge.

## Open Source Project Process Timeline

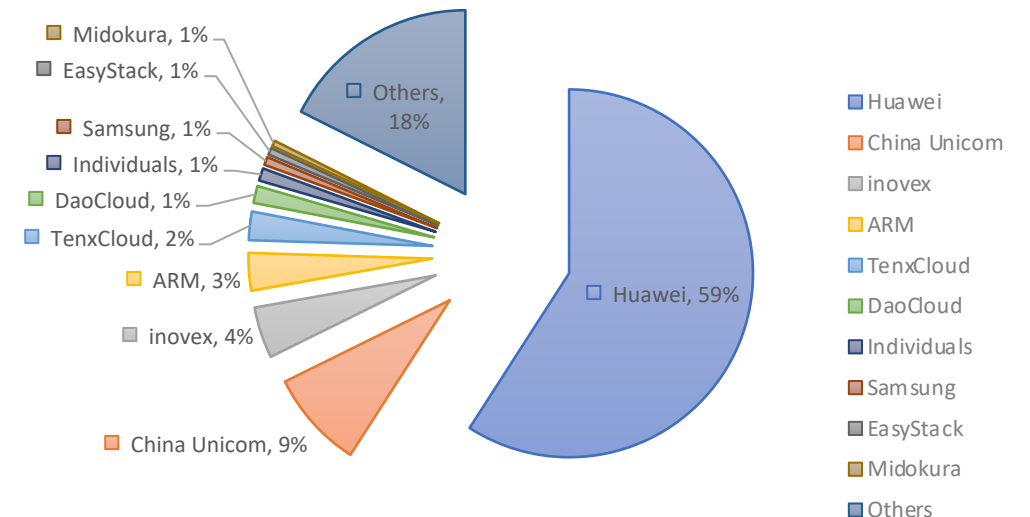


# KubeEdge Status

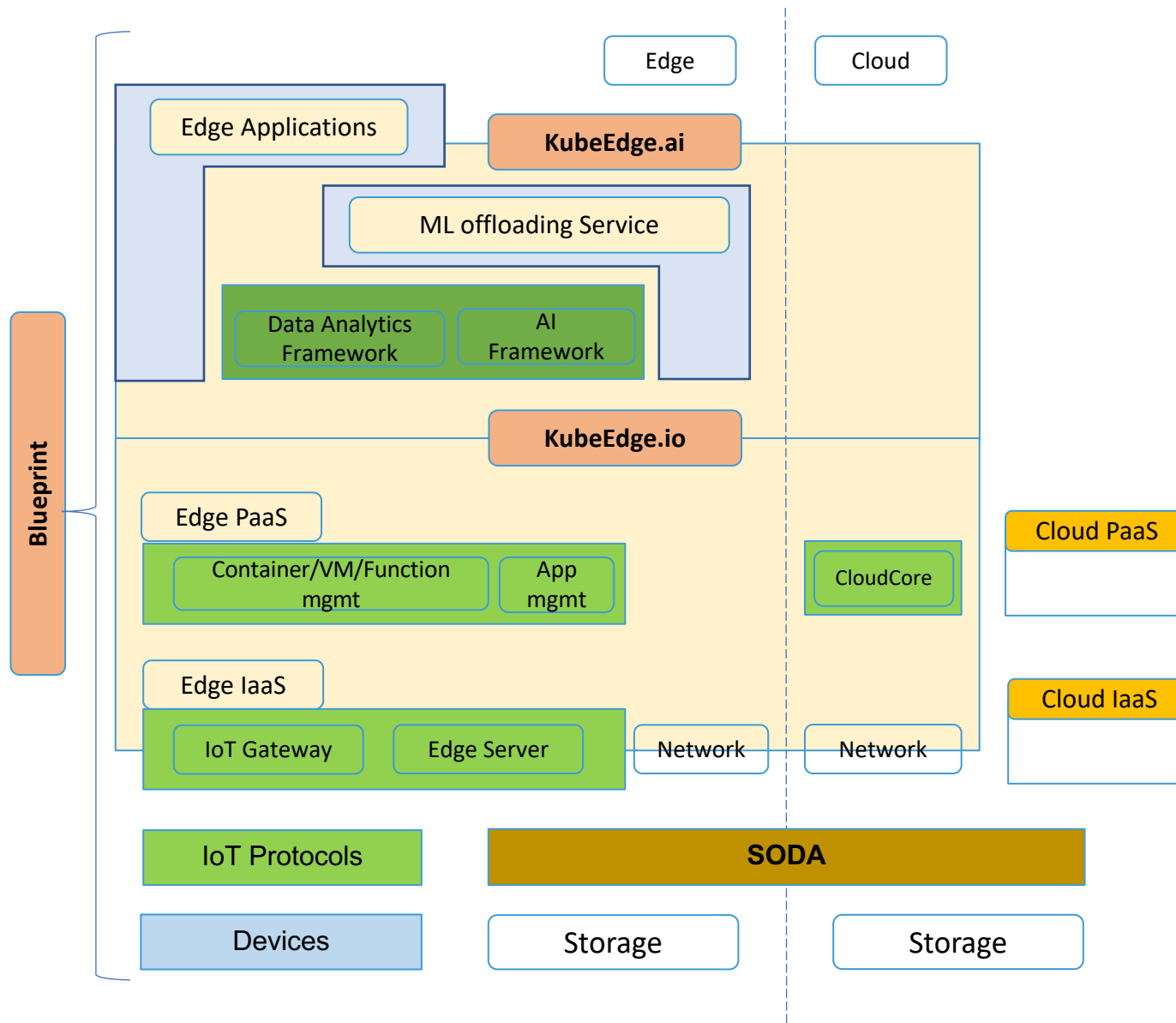
- 2019 Mar entered CNCF Sandbox
- 5 minor(feature) releases, v1.2 released 2020.2
- 2.1k+ Star, 500+ Fork on Github, 1k+ wechat members
- 250+ Contributors (90 submitted code);
  - > 10 Approvers (**1 Infoblox, 1 HP, 1 Microsoft**)
  - > 14 Reviewers (**1 China Unicom, 1 ARM, 1 Infoblox, 1 Inovex, 1 HP, 1 Microsoft**)
- Over 40% PR made by non-huawei contributors in 2019



KubeEdge 2019 Pull Requests



# Expanding KubeEdge to Full Edge Stack



## Community development

- Integrate with EdgeX foundry
- Akraino BP – ELIOT
- Akraino KubeEdge Offloading

# KubeEdge 2020 Plan: Technical

- **Support managing cluster at edge**
  - > Reuse kubefed APIs, but some implementations may have to change
- **Cloud-edge, edge-edge communication**
  - > improve EdgeMesh, offer communication capabilities across subnets
- **Support functions and VM provisioning at edge**
  - > integrate CloudEvent, knative etc.
  - > integrate virtlet, Arktos
- **Edge Device management**
  - > improve device CRD and mapper design, make it easier for user to extend;
  - > collaborate with EdgeX Foundry, etc. to provide more device protocol and management support.
- **Data Management at Edge**
  - > Integrating with SODA
- **Data Analysis framework and AI framework**

Thank You