



Alliance for IoT
and Edge Computing
Innovation

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AIOTI
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Continuum, digital twins
and virtual worlds

CODECO ACM (Automated Configuration Manager)

Ray Carroll, Red Hat

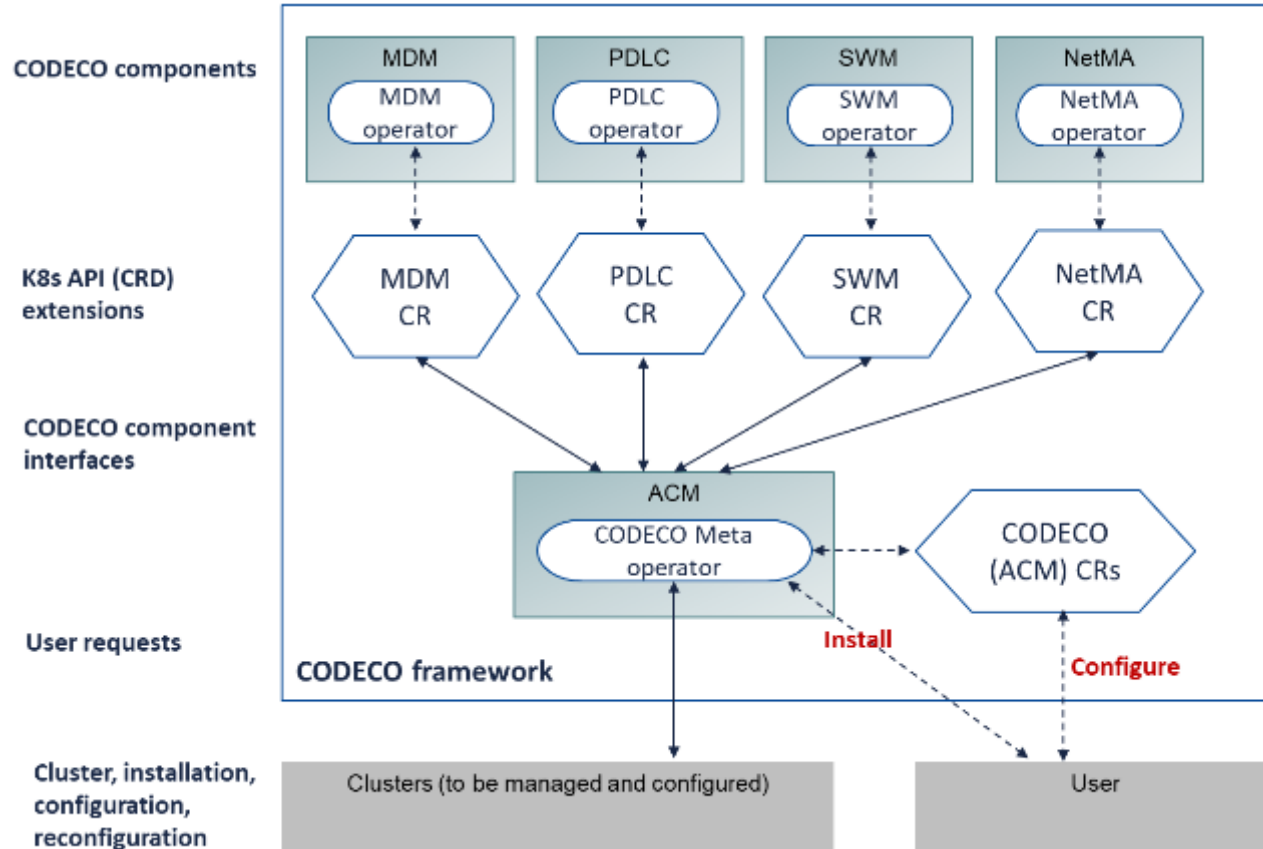
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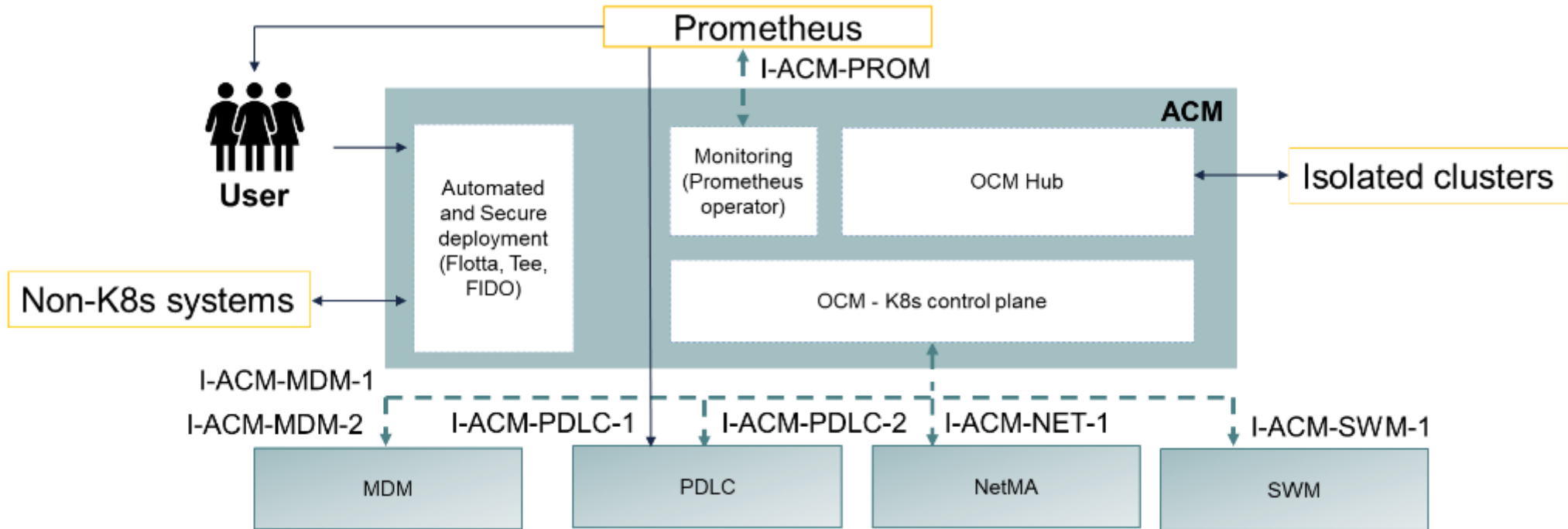
What is ACM?

- Interface point with the user (developer)
 - Augmented Application Descriptor
 - Additional parameters for users to better control application deployments
 - Coordination of platform components for automated and intelligent deployment
- Automated Installation and Configuration
 - Integrated installation of distinct platform components
- Federated-cluster Manager
 - Registration, life-cycle management, work dispatch, placement, security and policy
- Federated Application Monitoring
 - Application and System Monitoring across the multi-cluster

ACM in Codeco



Core ACM Components



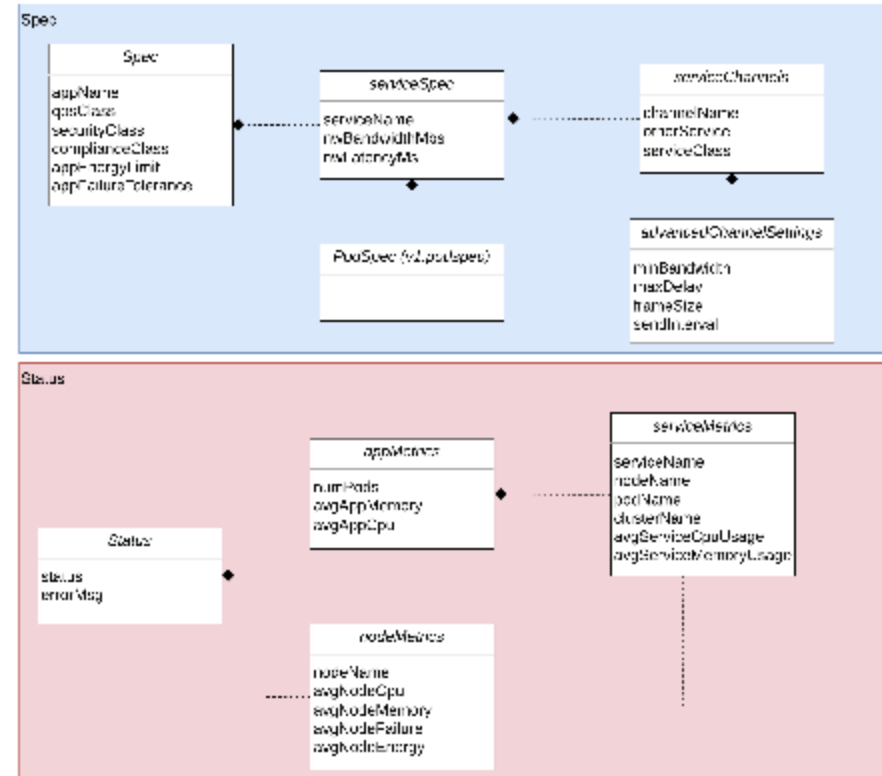
ACM Application Operator

Defines the Codeco Application model

- Kubernetes Custom Resource Descriptor (CRD)
- Augmented with valuable non-functional requirements

Manage Codeco Application Life-cycle

- Trigger deployment of application
- Notify Codeco Components of change
- Transform resource objects into component specific format
- Gather Application run metrics for users



Key challenges going forward

- Federated Cluster Management and Monitoring
 - Federated cluster control plane (OCM)
 - Evaluate integration with key Codeco components (e.g. scheduler)
 - How best to install and configure the application cross-cluster?
 - How best to support specific component architectures?
 - How best to capture metrics across a federated infrastructure?