

Harbor Operator DEV 06/24

24 June 2020 / 20:30 / ZOOM: <https://VMware.zoom.com.cn/j/4950184181>

ATTENDEES

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AGENDA

Topics:

- Dev progress check
 - Component services LCM
 - Cluster reconcile process
- Issues discussions

NOTES

- Harbor-operator is open sourced:
<https://github.com/goharbor/harbor-operator>
- Harbor cluster operator Github repo is created:
<https://github.com/goharbor/harbor-cluster-operator> (docs/scaffolded code)
- Storage operator: minIO (s3 compatible)
- CONFIRMED:
 - <https://github.com/zalando/postgres-operator>
- CONFIRMED:
 - <https://github.com/spotahome/redis-operator>
- Use the project to track project dev

- All tasks should be linked with issues
- Code reviewers - need two
- Create `pkg` package for components and utilities
- Release 1.0
 - Goal: deploy full-stack Harbor
 - Provision
 - Update (scale)
 - Upgrade (lower v -> higher V / migration)
 - Delete
 - CI/CD pipeline (goreleaser for release)
 - Documents
 - Rough timeline:
 - **Mid of June**
- **Communications with Harbor core operator:**
 - Storage: registry configuration file template
 - Database/Redis: secrets
 - **New adding configurations: postponed to V1.0 (no GA date is planned)**
 - **Split tasks into two stages (1st version do not consider newly added configurations in the spec)**
- **Suggestions:**
 - Add comments for code
 - Add UT cases for code (**ginkgo**)
 - Git commits with meaningful messages feat(scope): message
 - CNCF workspace: slack channel: **#harbor-operator-dev**
 - If you're not a member of the CNCF Slack yet, sign up here: <https://slack.cncf.io>
- **Delete should be performed on HarborCluster CR (owns other CRs). The deletion of HarborCluster CR should trigger the K8s GC process.**
 - **LCM delete method (leave empty)**
- **Status inconsistent between harbor-cluster conditions and CRStatus returned by the LCM controllers**
 - HarborClusterStatus: **add a Status string field**

- Calculated based on conditions
- Add annotation to make sure the Status can be exported to the kubectl console
- **Values:**
 - Pending (any component is pending)
 - Provisioning (any component is provisioning)
 - Running (all components are ready)
 - Failed
 - Deleting
- **Conditions (types)**
 - Ready (the whole harbor cluster is ready)
 - Cache-Ready (Redis cluster is ready)
 - Database-Ready (PostgreSQL is ready)
 - Storage-Ready (minIO is ready)
 - Service-Ready (Harbor service is ready)
- **Removed Component Status from cluster status**
- CRStatus <-> ClusterStatus
 - A corresponding Condition should be contained in CRStatus

```
type CRStatus struct {
```

```
    Condition
    HarborClusterCondition
    `json:"condition"`
```

```
Properties Properties
`json:"properties"`
}
```

- **Incluster and external service are both covered by LCM controller and unified CRStatus should be returned**

ISSUES

- Redis sentinel mode supported in Harbor
 - Sentinel PR is delayed to V2.1
 - Impacts to harbor cluster operator dev - Ziming Zhang supports
 - Patch registry (enable Sentinel)
 - Patch harbor (enable Sentinel)
 - **Block cluster operator GA**
- K8s client for Redis operator is too old (1.15)
 - Dynamic(unstructured)/**typed client**
 - Raise an issue to the Redis operator community - No response till now.
 - The only option for the current case: **Dynamic**
 - No status spec
 - Use Redis client to connect to the sentinel node to check if it is ready
 - **[EXTENDED]**Create health observers to update the stats of components for a harbor cluster
- MinIO: need extra service creation (headless services so far)
 - Do investigation about the approach to check the availability of the minIO service
 - PV re-mount of minIO

GOAL

- Verify controller deployment (on the local cluster) - canfeng (next week) - 70%
- Deploy Harbor with all external dependant services
- Deploy Harbor with xx external + x internal
- Fully ready deployment + all in cluster services

ACTION ITEMS

- Harbor CR SCALE -DONE

- Cluster.spec.replica(/.jobservice.replica) <>
client.Get(HarborCR).harborCore.replica(/.jobservice.r
eplica)
- Scale->Update(Harbor CR)
- HarborLCMController.Reconcile(){
 - client.get(HarborCR)<>harborCluster.spec
 - ScaleUp()/ScaleDown() // Refactor to Scale()
 - Update() //for jobservice
- }

- Refactor:

- 1. Add Scale() - canfeng
- 2. Refactor - huijun
- 3. Remove ScaleUp()/ScaleDown() - huijun

- Sprint status

- Mv some unimplemented items from passed SP4 to SP5

- SP4: 1 issues opened (passed)

- SP3: All issues are bound with PRs that are waiting
for reviews - DONE

- PR status: before end of this week

- <https://github.com/goharbor/harbor-cluster-operator/pull/72>
 - PostgreSQL unstructured data validation issue
 - Remove unnecessary fields
 - DCO missing (-s)
- <https://github.com/goharbor/harbor-cluster-operator/pull/76> - DONE
- <https://github.com/goharbor/harbor-cluster-operator/pull/80>
 - ~~Format issues~~ - revert
 - Squash commits
- <https://github.com/goharbor/harbor-cluster-operator/pull/82>
- **Redis SENTINEL mode support - ONGOING - 80% (testing stage)**
 - Two secrets: server and sentinel server
 - Harbor change code
 - Core operator also needs to be updated to support sentinel
 - Harbor PR #11155 - zzm
 - Harbor-core patch image
 - Registry patch image
 - Trivy patch image - pending
 - The secret returned by Redis CR - zzm
 - URL: redis+sentinel://pass@host:port/index/group
 - Sentinel password
 - **ISSUES:**

- Networks (access via multiple networks) (only in the docker-compose scenario)
- PR cause case failed
- Remove comma format of Redis address from JS
- Delay in the master switching progress
- **Cascaded owner reference - hujun zhu**
 - Cluster->Redis CR -> Related Secrets
- **CRD version beta has been deprecated - zxy (PR submitted)**
- **DEV Overall progress: - Mid of July**
 - Cache(Redis) LCM controller - 100%
 - Revise the Redis reconcile process based on CRStatus - PR raised within this week (before Thursday)
 - Harbor LCM controller - 80%
 - Depends on the services
 - LCM owners can design the property list of the related CRStatus - huijun/zxy
 - Postgres LCM controller - 70%
 - minIO LCM controller - 80%
 - Main reconcile process - 90% (Need verify)
 - Update service getter interface - canfeng **-DONE**

NEXT WEEK'S AGENDA

- PR reviewings (clear)
- Overall progress (healthy/risk)
- Sentinel mode offline dicussion