

OpenSDS Technical Meeting Notes/Agenda

This meeting is for OpenSDS design reviews and technical discussions and is open to everyone interested in OpenSDS. This document captures the agenda and notes from each meeting. If there is anything you want to discuss at this meeting, please add an item in the agenda.

Schedule

OpenSDS Technical Meeting runs weekly. There are two bi-weekly meeting times:

It is held bi-weekly at 4:00pm-5:00pm UTC (8:00am-9:00am PT and 11:00am-12:00pm ET) on Tuesdays.

Zoom Link: <https://zoom.us/j/777978108>

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It is also held bi-weekly at 1:00am-2:00am UTC (5:00pm-6:00pm PT and 8:00pm-9:00pm ET) on Thursdays. Zoom Link: <https://zoom.us/j/229373941>

Contact xingyang105@gmail.com to be added to the calendar invite.

OpenSDS Links

- Mailing list: opensds-tech-discuss@lists.opensds.io
 - Contact Xing Yang <xingyang105@gmail.com> to be added to the mailing list
 - Or Subscribe at <https://lists.opensds.io/g/opensds/>
- Slack:
 - Get invite to join here:
- Github: <https://github.com/opensds>

Organizers

- Xing Yang <xingyang105@gmail.com>

Next meeting is on August 22nd, 2019

Meeting on August 13th will be canceled

August 22, 2019

Meeting will be on August 22, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or August 23, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Click2Cloud] Multi-Cloud Project enhancement (Abort Migration)
https://drive.google.com/file/d/1SoarTRLJTWuuiYoZ9IjfuE4TS2UA_G2T/view?usp=sharing
- Development issues
- Open discussions

August 27, 2019

It is held bi-weekly on Tuesdays at 1:00pm-2:00pm UTC (6:00am-7:00am PT or 9:00am-10:00am ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
- Development issues
- Open discussions

Previous Meetings

August 8, 2019

Meeting will be on August 8, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or August 9, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Naju and Himanshu] Naju talked about VMware vSphere Web Client integration and did a live demo
 - We need to investigate more on whether this plugin can be easily extended to support other storage systems
 - Slides attached.
 - [Ashit] Ashit presented YIG integration design spec: <https://github.com/opensds/design-specs/pull/45>
 - Kei has concerns about integration with YIG
 - Ashit will update the design spec to clarify the following:
 - Ceph object store backend is not required after YIG integration (because some end users don't want to use Ceph).
 - What benefits from YIG are for all object store backends including AWS S3, Azure Blob, and other non-Ceph local object store backends.
 - What benefits from YIG are only for Ceph.
 - List new features that will be brought by YIG integration and existing multi-cloud features separately.
 - We'll need more discussions on this integration
 - [Click2Cloud] Multi-Cloud Project enhancement (Abort Migration) https://drive.google.com/file/d/1SoarTRLJTWuiiYoZ9lifuE4TS2UA_G2T/view?usp=sharing
 - Running out of time. Will discuss in the next meeting.
- Next week's meeting on August 13th will be canceled.

July 30, 2019

Next Tuesday's meeting will be rescheduled to 1:00pm-2:00pm UTC (6:00am-7:00am PT or 9:00am-10:00am ET).

~~It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (9:00am-10:00am PT or 12:00pm-1:00pm ET).~~ Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Shufang/China Unicom] Shufang discussed about YIG (Scalable Object Store) integration with multi-cloud data control.
 - YIG provides a S3 gateway that is built to support Ceph clusters, but the approach can be adopted to support other S3 backends. It supports additional S3 features such as versioning, server-side encryption, etc.
 - Multi-cloud S3 service will be replaced with YIG's implementation. Other services including Backend Service, Dataflow Service, and Data Mover will remain the same.
 - Database in multi-cloud data control will be changed from MongoDB to TiDB, an open source NewSQL database that is MySQL compatible and features horizontal scalability, strong consistency, and high availability.
 - Redis will be used for caching metadata to improve performance.
 - [Click2Cloud] Click2Cloud talked about 3 enhancements they are proposing in multi-cloud data control.
https://drive.google.com/file/d/1VleLeh8BQ5ZejThe_ZxnHttgdnKXOC0v/view?usp=sharing
 - Show Progress of object migration process - Proposal looks okay. Will work on it and submit a PR. Need to make sure it works with the YIG integration changes.
 - Show estimated time to complete the migration - Proposal looks okay. Will work on it and submit a PR. Need to make sure it works with the YIG integration changes.
 - Cancel or Abort Migration - We are running out of time. Need more time to discuss about this. Will continue in the next meeting.
- Proposing to re-schedule Tuesday's technical meetings in the future to 1:00pm-2:00pm UTC (6:00am-7:00am PT or 9:00am-10:00am ET).

July 25, 2019

Meeting will be on July 25, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or July 26, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [zengyingzhe] Sanil went thru the updated VMware integration design. It now has a plugin manager, plugins, each with an adapter to communicate with OpenSDS. It looks much more straight-forward than the earlier version of the spec:
<https://github.com/opensds/design-specs/pull/38>
 - Kei likes the design.
 - Naju will try to record a video of the prototyping of one plugin.
 - [Liuqing] Liuqing talked about log specification:
<https://github.com/opensds/design-specs/pull/37>
 - Submit a small PR with examples and gather more feedback before moving forward with more changes.
 - [Shufang/China Unicom] YIG (Scalable Object Store) integration with multi-cloud data control
 - Moved to next Tuesday's meeting.
 - [Click2Cloud] Client requirement for Multi-Cloud project (enhancements)
 - https://drive.google.com/file/d/1lcaEtJTnaBDyk1-S_0fDWTGd6mZp_lop/view?usp=sharing
 - Click2Cloud talked about client requirements on displaying progress during migration, etc. Will discuss more next time.
- Development status
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- Open discussions

Meeting on July 16th will be canceled due to Open Source Summit Japan.

July 11, 2019

Meeting will be on July 11, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or July 12, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Capri v0.6.1 release status:
 - Fujitsu driver is backported to stable/capri.
 - Installer bug about Grafana is fixed and backported.
 - Need to re-cut Sushi v0.6.1 with updated Hotpot - Erik
 - Need to update wiki for Grafana - Anvith/Joseph
 - Sanil to provide a VM in India
 - Review issues reported
 - v0.6.1 for other repos are cut.
- Design reviews
 - [Shufang/Yueju] Big data analysis:
<https://github.com/opensds/multi-cloud/pull/163>
 - User view - added a new workflow in dashboard for big data analysis
 - How to make it work
 - Shufang will submit a design spec
 - Kei is interested in the demo. Will discuss more next week at OSS Japan.
 - [zengyingzhe] VMware OpenAPI:
<https://github.com/opensds/design-specs/pull/38>
 - Kei is very interested in this, but we are running out of time. Will discuss again in 2 weeks.
 - Need more clarification on the plugins of different layers
 - [Liuqing] Log specification: <https://github.com/opensds/design-specs/pull/37>
 - Running out of time. Will move to next meeting in 2 weeks.
- Development status
 - [Haibo] Split CSI fileshare and block plugin (because DeleteVolume CSI interface does not have profile info so we don't know whether it is fileshare or block); Haibo to submit a spec.
 - [Click2Cloud] Working on Ceph replication. Will submit PR soon.
- Open discussions

July 2, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (9:00am-10:00am PT or 12:00pm-1:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- KubeCon Shanghai
 - Mini-summit
 - Pravin gave an update of the mini-summit in Shanghai. There were 60-70 attendees at the mini-summit. There were simultaneous translation between Chinese and English because speakers were speaking in either English or Chinese. It worked well!
 - Sanil and Leon gave project presentations. Jerry and Shufang showed demos.
 - Yahoo! JAPAN, Toyota, and Linbit were there.
 - Booth had good traffic.
 - Xing gave a Keynote, a session on CNCF Storage SIG, and a session on Anomaly Detection for Cloud Native Storage with Takei-san.
 - Shufang and Shane had a session on OpenSDS project update.
- Capri release
 - Capri release was cut!
 - Fujitsu driver was merged! We'll backport it to stable/capri.
 - <https://github.com/opensds/opensds/pull/935>
- Development status
 - We are going to deprecate "development" branch. All open PRs should be submitted to master branch instead. Any bug fixes to Capri will be merged to master first and then cherry-picked to stable/capri.
 - Click2Cloud presented on Ceph replication. Will implement volume replication driver interface next. Will submit a design PR to design-specs repo.
 - <https://drive.google.com/file/d/1HZUb1z6iZCHsTYzxltulYq2TawIC1w8n/view?usp=sharing>
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

Meeting on June 27th will be canceled due to KubeCon Shanghai.

June 18, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (9:00am-10:00am PT or 12:00pm-1:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Development status
 - We are in the process of cutting Capri RC3. If testing is okay, this will become the final Capri release.
 - NVMeoF TCP/IP support in CSI: There are still issues during testing. May not make the final release. We'll backport the fix when it is ready.
 - Fujitsu driver is planned to be submitted on 6/27. We'll backport it after it is merged.
 - Host-based Replication Driver for Scutech Cloud Migration System (CMS) is submitted and merged! It supports create, enable, disable, delete replication interface.
 - Thin OpenSDS is merged into a separate branch (<https://github.com/opensds/opensds/tree/thin-opensds>) as an experimental feature. Click2Cloud will test it and document how to use it.
 - Object lifecycle: Restore API for Glacier will not be in Capri. Although code for Restore API is complete, we need to be able to show status because it takes a very long time to restore.
 - Automation & Orchestration installation needs to be tested with other repos.
 - Fileshare CSI support needs Hotpot release before it can be tested and merged.
 - Fileshare support is testing in progress.
 - Anomaly Detection's Alert Generation will be added after Capri release.
 - Telemetry is done and documentation submitted.
- Demo preparation for KubeCon Shanghai
 - <https://github.com/opensds/demos/issues/2>
 - Jiajun is working on the demo setup for Telemetry and Anomaly Detection and have some issues.
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

June 13, 2019

Meeting will be on June 13, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or June 14, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Capri RC2 is cut.
- Development status
 - NVMeoF - There are problems testing RDMA in container environment so it is not ready yet. Submitted PR to support TCP/IP and will use that for demo.
 - Fujitsu driver - Review is complete. Will submit the driver on 6/27.
 - Thin OpenSDS - not ready to be merged in Capri. Consider whether we should make it an experimental feature in a different branch.
 - Object lifecycle:
 - Restore object API and HEAD API PRs are review in progress.
 - Design doc needs an update on GCP and IBM object store
 - Need feedback from IBM engineer on whether migration between storage tiers in the same cloud is supported on IBM cloud.
 - GCP upload limitation: 1GB
 - GCP only support Standard Storage Class
 - Helm install with Ceph PR still not merged.
 - Orchestration & automation: installation is WIP.
 - CSI: Fileshare CSI support PR submitted.
 - Fileshare code complete. End-to-end test WIP. Manila driver merged.
 - Telemetry
 - Volume level metrics for Ceph PR merged (only capacity)
 - Dashboard and installer integration is WIP
 - Naju will put together a doc on how to test Telemetry using LVM.
 - Anomaly detection
 - Need to implement Generate alert.
 - Other planned features are merged.
- Demo preparation for KubeCon Shanghai
 - <https://github.com/opensds/demos/issues/2>
 - Jiajun is collecting metrics from MongoDB exporter and node-exporter. Will collect metrics from Ceph next.
- Design reviews
 - [Click2Cloud] Did a high level overview of replication for Ceph design.
 - Action Item: Review replication driver interfaces and see whether they can be implemented for Ceph.
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>

- Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
- Capri release schedule:
<https://releases.opensds.io/capri/index.html>
- Open discussions

June 4, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (9:00am-10:00am PT or 12:00pm-1:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Capri RC1 is cut.
- Development status
 - NVMeoF CSI support
 - Issues not resolved yet
 - Fujitsu driver
 - Code complete. Waiting for approval to submit PR.
 - Object lifecycle
 - Neelam is addressing comments on restore API PR (status of restore, for long running restore process).
 - User defined tier is not in scope for Capri.
 - Click2Cloud
 - Add volume level metrics for Ceph, only capacity (WIP)
 - Thin OpenSDS (Address comments and get it merged in Capri)
 - Helm chart with Ceph (address comment and get it merged in Capri)
 - Automation & Orchestration
 - Installation and dashboard integration is WIP
 - CSI
 - No resize PR yet
 - File share
 - e2e testing
 - Manual testing done with dashboard and postman API.
 - WIP - auto testing
 - Manila driver PR not submitted yet
 - Anomaly detection
 - Data Generator is done. Need integration testing and documentation.
 - Telemetry
 - Installation and dashboard integration is WIP
 - Need documentation

- Action Item for Leon: Check with legal on copyright issue
- Demo preparation for KubeCon Shanghai
 - <https://github.com/opensds/demos/issues/2>
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

May 30, 2019

Meeting will be on May 30, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or May 31, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Anvith, Sanil, and Kei gave a recap of OpenSDS mini-summit in Barcelona.
- Development status
 - Github download issue? - Not a problem if the repo is publicly available.
 - RC status - Still testing. Cut RC1 on June 3.
 - HPE Nimble driver is merged! Kei said he can use it in the POC for Capri.
 - Fujitsu driver is code complete. Waiting to get approval to submit PR.
 - NVMeoF CSI support may be delayed due to problems run into while testing RDMA with containers
 - Leon will add comments for Thin OpenSDS implementation regarding having one interface for both controller and dock (future enhancement). Existing PR can be merged by RC1.
 - Object lifecycle restore API PR is submitted. Neelam will sync up with Shufang.
 - Automation and Orchestration: installation and dashboard integration are work in progress.
 - CSI topology support is merged. Resize has not been started.
 - File share NFS driver is merged. Manila driver is code complete and being tested. CSI support is WIP.
 - Anomaly Detection Data Parser is done. Jiajun will work on Data Generator. Integration testing is not done yet. Need to provide documentation.

- Telemetry: installation and dashboard integration are work in progress. Need to provide documentation.
- Demo preparation for KubeCon Shanghai
 - <https://github.com/opensds/demos/issues/2>
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

Meeting on May 21th, 2019 will be canceled due to KubeCon Barcelona.

May 16, 2019

Meeting will be on May 16, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or May 17, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Milestone-3 release is cut.
- Development status
 - HPE Nimble driver is submitted
 - <https://github.com/opensds/opensds/pull/740>
 - Review in progress
 - Kei will follow up with Tak from HPE on the status. Kei said he can use the Nimble driver for POC
 - Fujitsu driver: Hiroki-san said driver implementation is complete. He is getting approval to submit the driver upstream. Need a couple of weeks.
 - Planned Capri GA date is mid June, a month away. So please try to submit it as soon as possible,
 - NVMeoF CSI support: <https://github.com/opensds/nbp/pull/215>

- Qiaowei: Please update the driver now that m-3 of hotpot is cut
 - Leon: Please follow up with Qiaowei
- Thin OpenSDS:
 - Click2Cloud has submitted PR: <https://github.com/opensds/opensds/pull/696>
 - Review in progress
 - Leon has concerns on how the code is done currently. Please add comments.
- Object lifecycle
 - Default storage tier PR and Put/Get/Delete API changes are merged
 - Dashboard integration is done
 - TODO: user defined storage tier and restore Glacier
- Installer
 - Helm charts with Ceph by Click2Cloud is review in progress: <https://github.com/opensds/opensds-installer/pull/150>
- Automation & Orchestration
 - Multiple PRs merged including Service Definitions Create and List APIs: <https://github.com/opensds/orchestration/pull/19>
 - Dashboard integration is WIP
 - TODO: installer
- File share
 - Access API, dock and controller for file share PRs are merged
 - NFS driver is code complete. Need more testing. <https://github.com/opensds/opensds/pull/741>
 - CLI is done and review in progress
 - Dashboard integration is WIP
 - E2E testing and demo (WIP)
- Telemetry
 - Many telemetry PRs have been merged, including APIs and controller changes.
 - Dashboard integration (WIP)
 - Installer (WIP)
- Anomaly Detection
 - Read data from mysql database and run models is done
 - Data Parser is WIP
 - Prakash, Naju, and Jiajun have been working on collecting metrics and running models (WIP)
 - TODO: Data Generator
 - TODO: Installer
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule:

<https://releases.opensds.io/capri/index.html>

- Open discussions

May 7, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (9:00am-10:00am PT or 12:00pm-1:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Capri milestone 3 is this week.
- Development update
 - Ceph Metrics driver
 - [Click2Cloud] https://drive.google.com/file/d/1zD_jb2DEkuF2kp4WB-jWM01ex26fR6jN/view?usp=sharing
 - [Prakash] Issue and approach taken for CEPH metrics driver
 - Problem: The collect method in Ceph exporter cannot be used directly because it sends data directly to Prometheus. There's "set" but no "get".
 - Workaround: We need to write a method similar to collect in our Metrics driver for us to collect data.
 - Click2Cloud: target to complete by end of May.
 - [Click2Cloud] Thin OpenSDS: review in progress
 - [Click2Cloud] Helm install with Ceph: please check repo and rebase.
 - [Prakash/Naju] Telemetry: Post metrics PR will be updated soon. Will address volume instance ID issue and move to separate dock next.
 - [Shufang/Neelam] Object lifecycle: PRs being reviewed. Work done on default storage tiers and get/put APIs. Next work on user-defined storage tier and recovery API.
 - [Shruthi/Pravin] File share: PRs on file share and snapshot basic APIs are merged. PRs on profiles, etc. are in review. PRs on access APIs and default NFS driver will be submitted soon.
 - [Xulin/Himanshu/Ashit] Automation & orchestration: Bucket migration workflow is done. Service listing and execution API is done. Provisioning workflow is partially done. PRs on service definition and other actions such as snapshot, extend are being reviewed.
 - [Anvith] Dashboard: integration and testing in progress

- [Jiajun] Anomaly detection: Training/Prediction service for Gaussian and DBSCAN is done. Work on reading from mysql database next. Prakash/Naju will help with Data Generator and collect data from LVM metrics driver.
 - NVMeoF CSI support: PR submitted but depending on hotpot release to pass CI.
 - PRs need attention: Many PRs need to be reviewed.
- Design discussions
 - [Click2Cloud] Interested in Block Storage migration. Will discuss in the next meeting.
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

May 2, 2019

Meeting will be on May 2, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or May 3, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Capri milestone 3: the week of 5/6/19 to 5/10/19. Feature code needs to be merged.
- Design reviews
 - [Xulin/Ashit] Orchestration workflow - Ashit gave a demo on Migrate Bucket workflow. He showed the service registration yaml file for migrate bucket and provision volume. Currently it is not customizable. After m-3, he will work on customizing workflows.
- Development status
 - [Click2Cloud] Ceph Metrics driver - Use existing Ceph exporter for Prometheus. Don't rewrite the code. Write a metrics driver that uses the Ceph exporter. Our installer will install the Ceph exporter with Prometheus. The requirement is the exporter must be running for our Metrics driver to get data.
 - [Click2Cloud] Thin OpenSDS - PR submitted and in review.

- [Prakash/Naju] Telemetry - Prakash will submit a new PR on Post and CollectMetrics and close the existing one because parts of the PR have already been merged in other PRs. Remaining work: installer and end-to-end testing.
- [Shufang/Neelam] Object lifecycle - Restore API for Glacier not planned by m-3. Code is done using Storage Class name now. Tier will be added later. Dashboard code WIP.
- [Shruthi/Pravin] File share - API code merged. NFS driver using LVM (volume group will be created manually now and automated as part of install later). Dashboard WIP.
- [Xulin/Himanshu/Ashit] Automation & orchestration - PRs being reviewed. More testing.
- [Jiajun] Anomaly detection - Jerry is working on separating code for training and prediction. Lots of work remaining. Prakash/Naju will help with Data Generator.
- Dashboard - Anvith is trying to finish dashboard work. Because it is dependent on feature completion, it is hard to finish everything by m-3.
- PRs need attention - Many PRs need to be reviewed and merged next week.
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
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- Open discussions

April 23, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (9:00am-10:00am PT or 12:00pm-1:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Capri milestone 3: the week of 5/6/19 to 5/10/19. Feature code needs to be merged.
- Development update
 - Hackathon updates - Click2Cloud held an OpenSDS Hackathon in response to the Open Source Hackathon in Shenzhen and worked on a number of issues/PRs.
 - Leon gave an update on Open Source Hackathon in Shenzhen: <https://etherpad.openstack.org/p/9th-opensource-hackathon-opensds>
 - Use cases and Proposed Architecture for Ceph volume level replication is now open for comments and suggestions -Click2Cloud

<https://docs.google.com/document/d/1jBJt8lfR-GmXKxBkZHO-MULmPGEBQBiQEV3YJtR7e8g/edit?usp=sharing>

- Thin-opensDS project status update - Click2Cloud started working on it. Had a question on controller and scheduler. Thin OpenSDS will only support one backend at a time. So no need for the scheduler.
 - Profile info should be passed from API all the way down to the driver now. If required information such as protocol not passed to the driver, please open a bug.
- Telemetry updates - Click2Cloud is working on the Telemetry driver for Ceph. Will evaluate whether it can be done by m-3.
- Naju gave an overview of Telemetry driver development, how to write a driver and how to test it. Will include this as part of the Telemetry design spec.
https://docs.google.com/document/d/18tBzTTCYu2T-sfy14n9ZmK3USiUE4urCOqpL6Uh_LFs/edit?usp=sharing
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule:
<https://releases.opensds.io/capri/index.html>
- Open discussions

April 18, 2019

Meeting will be on April 18, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or April 19, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Leon] Leon discussed about the DNS resolution proposal in Hotpot and gave a demo. Once merged, it will impact other work in Hotpot, including Fileshare and Metrics work. Please review the PRs and provide comments.
 - Design specs: <https://github.com/opensds/design-specs/pull/29>
 - Pull request: <https://github.com/opensds/opensds/pull/643>
 - A simple demo: [Install OpenSDS on an existing Kubernetes cluster](#)
 - Fileshare design:

- <https://github.com/opensds/design-specs/pull/27>
 - Hiroki-san has been reviewing the Fileshare design spec and found out that protocol is specified in both create file share request directly and in the profile. We will remove protocol from create file share and keep it only in the profile. Thanks!
 - Multi-attach design:
 - <https://github.com/opensds/design-specs/pull/26>
 - Haibo has question on whether multiAttach should be in profiles. It should be in profiles. Not every driver supports multiAttach. Having it in profiles allows scheduler to choose a backend that can support it. The current proposal adds it to customProperties. If anyone has other suggestions, please provide feedback in the PR.
 - Object Lifecycle management:
 - <https://github.com/opensds/design-specs/pull/24>
 - Discussed about the storage classes/tiers in Object Lifecycle management with Shufang. In Capri, we only support object so we know what object store backends are available. In the future when lifecycle management involves migrating from on-premise block/file storage to object store in the cloud, user will need to configure the storage tiers themselves. So we need to make storage tier configuration flexible for users. Shufang has concerns about S3 compatibility if we use non-S3 storage class names. Will have follow up discussions later.
 - Kei has a question on whether OpenSDS has knowledge of the redundancy parameter in Azure Blob (user needs to configure the redundancy parameter in Azure Blob, while in AWS S3 there is a default redundancy of 3). OpenSDS does not have knowledge of the redundancy parameter because users need to configure Azure Blob first and then register it with OpenSDS. OpenSDS stores metadata, but the real data is stored in Azure.
- Development status
 - Simran from Click2Cloud said they are having a Hackathon in response to the Hackathon in Shenzhen, China. Please add issues/PRs to the following etherpad.
 - 2019 China Open Source Hacking Conference is underway in Shenzhen. Here is the etherpad: <https://etherpad.openstack.org/p/9th-opensource-hackathon-opensds>. Please join by reporting issues, fixing bugs, and reviewing PRs...
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

April 9, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (9:00am-10:00am PT or 12:00pm-1:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Himanshu/Ashit/Xulin] Xulin went through the Orchestration design
 - <https://docs.google.com/document/d/1BO775XNoUBTY4ka0kMyUHL1WBKK7MO4mcvvn4UJ13Xc/edit?usp=sharing>
 - Feedback
 - Is Execution API needed? Can we add that to Instance?
 - Noel: Name it connection manager/workflow manager instead of StackStorm. StackStorm is one implementation. Other people can add other implementations in the future.
 - Add a table for all terminologies as they can be confusing.
- Development update
 - Click2Cloud has invited iSoftStone to join the meeting. Welcome Ying! They will join the Open Source Hackathon in Shenzhen (open source projects covered by the event including OpenSDS):
<https://etherpad.openstack.org/p/OpenSource-Hackathon-9-Shenzhen>
 - Click2cloud discussed CEPH Telemetry Metrics use-case - to store and retrieve metric from Prometheus.
https://docs.google.com/document/d/1VPPR8FJDnS8GGe2u_QwFWCAMqJYr735ND0loMl4PT3l/edit?usp=sharing
 - Focus on block first, using existing Ceph exporters
 - Prakash will add a note in Telemetry design doc that Ceph Metrics will be very specific to Ceph and we will preserve them
 - Investigating LVM metrics
 - For Cinder, we won't have one metric driver for all backends. A metrics driver, e.g. IBM metrics driver, can be developed for each Cinder storage backend.
 - Action Item for Leon: Share this doc with Qiaowei from Intel to get his feedback
 - Action item for Jay Bryant: review the doc and provide feedback
 - For others in the community who are interested in metrics for Ceph, please review the doc and provide feedback

- Click2Cloud shared Use cases and Proposed Architecture for Ceph volume level replication.
<https://docs.google.com/document/d/1jBJt8lfR-GmXKxBkZHO-MULmPGEBQBiQEV3YJtR7e8g/edit?usp=sharing>
 - There are 3 replication configurations supported by Ceph.
- Click2Cloud gave status update of Thin OpenSDS project
 - Started implementing Thin OpenSDS for Hotpot.
- Click2Cloud will propose File Share for Cloud design and use case
https://docs.google.com/document/d/1W2QN4Xq7e42Ej_4HDD_lwwG1e1nOR_WYBqVyKzbrJsY/edit?usp=sharing
 - Have not got time to discuss this. This has analysis on AWS file system API. A file share driver for AWS file system can be developed based on this.
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule:
<https://releases.opensds.io/capri/index.html>
- Open discussions
 - We are running out of time. Leon's topic on DNS resolution will be discussed in the next meeting

April 4, 2019

Meeting will be on April 4, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or April 5, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Prakash/Naju] Prakash and Naju went through the updated Telemetry design spec: <https://github.com/opensds/design-specs/pull/28>
 - File share design spec uploaded:
<https://github.com/opensds/design-specs/pull/27>
 - Please review the specs and provide feedback!
- Capri milestone-2 released. Added following features:

- Add NVMeoF support.
- Decouple API server from controller framework in hotpot.
- Password encryption and decryption.
- CSI plugin raw block support.
- Add GCP Adapter to multi-cloud.
- Add the sub-directory create function in multi-cloud.
- Add support for IBM Cloud Object Storage in multi-cloud.
- Add AK/SK Management support in multi-cloud.
- Enable multiple backends in OpenSDS Ansible installer.
- Enable OpenSDS Ansible installation with pre-existing Ceph.
- Add NVMeoF in OpenSDS Ansible installer.
- Add Salt installer.
- Development status
 - Click2Cloud started looking at Thin OpenSDS.
 - Click2Cloud reported a limitation by GCP S3 compatible support on multi-part upload.
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

March 26, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (9:00am-10:00am PT or 12:00pm-1:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Xing] Reviewed Anomaly Detection design
 - <https://docs.google.com/document/d/1rF9Dh16YQNhudfP3pQODuYtQvrL2AkpEylbPUo7aud8/edit>
- Development issues
 - We are waiting for the following items before cutting milestone-2
 - AK/SK for multi-cloud (Himanshu is debugging issues with dashboard)
 - CSI raw block support (Need to find out whether the path shown in container is correct)

- multi-node/multi-dock ansible install (Testing in progress)
- Click2Cloud will work on implementing Thin OpenSDS
- Neelam started POC with Object Lifecycle
- Pravin will submit PR for file share design spec soon
- Shruthi will investigate writing an independent scheduler for file share (and can also be used for block later)
- Prakash updated Telemetry doc with API designs
- Jerry is testing the algorithms for Anomaly Detection
- Qiaowei's design spec and code PR for NVMeoF are being reviewed
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Latest roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

March 21, 2019

Meeting will be on Mar 21, 2019 Thursday 6:00pm-7:00pm PT or 9:00pm-10:00pm ET (or Mar 22, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (6:00pm-7:00pm PT or 9:00pm-10:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Qiaowei] Qiaowei gave an overview of NVMe and NVMeoF
 - <https://github.com/opensds/design-specs/blob/master/meetings/NVMeoF.pdf>
 - Design spec submitted: <https://github.com/opensds/design-specs/pull/25>
 - PR submitted: <https://github.com/opensds/opensds/pull/632>
 - [Pravin/Shruthi] Pravin gave an overview of File Share design and APIs design
 - <https://docs.google.com/presentation/d/1X3Qdk0onfihnNV9RFqH9-AZIUKQiu2-VZr8eqwhoTbA/edit#slide=id.p>
 - https://docs.google.com/document/d/1lcaKI8ht7ZYyP0mGm8WN_jC1DH62wpJpZ5NiDuogT9g/edit
 - Feedback:

- Add profile id to create share request
 - Look at how to combine parameters for access control so that one request can provide different access controls for different users/ip's
- Shruthi discussed about File Share Profiles design:
 - <https://docs.google.com/document/d/1dTVF6v-vmX31DsoKxX0lu-9bMhthWEPrZTmAqJKL0ow/edit>
- Hamano-san will check with Sato-san to see if maxIOPS and maxBWS in Profiles design meet the requirements for QoS
- Feedback:
 - Use Location under Topology instead of Bucket for snapshot upload location; make it consistent with block storage support
 - For profiles that are common for block and file share support, consolidate them.
- Capri milestone 2 will be next week:
 - <https://releases.opensds.io/capri/index.html#c-2>
- We are tracking project status using github project boards:
 - <https://github.com/orgs/opensds/projects>
- Development status
 - Click2Cloud verified pool level replication works for Ceph RBD as well
 - Leon has completed the work to modularize OpenSDS hotpot and now it is ready to implement Thin OpenSDS
 - https://github.com/opensds/design-specs/blob/master/specs/capri/API_Framework_Refactoring.md
 - Click2Cloud will look at Thin OpenSDS support
 - https://docs.google.com/document/d/16zLCE1X8bNjkGoKvBpqDZaxEHZapWluQVgdlxuR_tE/edit#
- Roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>

Daylight Savings Time started

March 12, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (9:00am-10:00am PT or 12:00am-1:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Neelam/Shufang] Object Lifecycle Management
 - <https://docs.google.com/document/d/1XbA5IPLIJCBKf-Kk9BCwPy3VEj1bqEF7tvIriU83tAM/edit#>
 - Neelam discussed 3 options for designing APIs for lifecycle management. Each has pros and cons.
 - Design doc also captured questions came up during the design discussions.
 - [Shruthi] File share design
 - <https://docs.google.com/document/d/1YkVqXqHdXf9Q--3oEVv72hfoC-KvK0suQ5m4aOXvJt0/edit>
 - <https://docs.google.com/presentation/d/1X3Qdk0onfihnNV9RFqH9-AZIUKQiu2-VZr8eqwhoTbA/edit#slide=id.p>
 - Shruthi started to present file share design and showed a comparison table between Swordfish and Manila create share APIs.
- Development issues
 - Click2Cloud invested Ceph RBD image replication and it works. This means we can support RBD volume level replication. Will decide whether we should implement that in Capri or work on something else first.
 - Click2Cloud's Ansible installation PR on multi-node/multi-dock is in review: <https://github.com/opensds/opensds-installer/pull/123>
 - Click2Cloud's OpenSDS installation using Helm charts with Ceph backend PR in review: <https://github.com/opensds/opensds-installer/pull/109>
 - Leon has been reviewing the installation PR's.
- Capri planning
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - https://docs.google.com/spreadsheets/d/1OZat5p1Hz5Df7eCb30stPp112Wg8_pfnceVvATGgeVI/edit?usp=sharing
 - Latest roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions
 - [Leon] Ceph analysis and connection with OpenSDS
 - https://docs.google.com/presentation/d/1HJ3F576TVV3sDPfqGP9frs5nubnRBOIA-V0xnEv_Sul/edit?usp=sharing

March 7, 2019

Meeting will be on Mar 7, 2019 Thursday 5:00pm-6:00pm PT or 8:00pm-9:00pm ET (or Mar 8, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (5:00pm-6:00pm PT or 8:00pm-9:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Neelam/Shufang] Neelam presented Object Lifecycle Management design
 - <https://docs.google.com/document/d/1XbA5IPLIJCBKf-Kk9BCwPy3VEj1bqEF7tvIriU83tAM/edit#>
 - Reviewed storage classes used in object life cycle management in AWS, GCP, Azure, and HW OBS. Transition is one way.
 - Ceph object store only has one standard class.
 - 2 actions for life cycle: transition and expiration
 - OpenSDS life cycle storage classes will map to those in other clouds.
 - Should add rules to allow only one way transition across clouds so that it is consistent with rules within one cloud.
 - OpenSDS life cycle management supports actions across clouds and also within the same cloud.
 - Did not finish design discussions in the meeting. Will continue in the next meeting.
- Capri planning.
 - Project tracking board: <https://github.com/orgs/opensds/projects>
 - Latest roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>

February 26, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (8:00am-9:00am PT or 11:00am-12:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- [Noel, Leon, Sanil, Xulin] Testing framework
 - [Leon] Current status of the OpenSDS testing framework
 - <https://github.com/stretchr/testify>
 - Travis-ci
 - <https://github.com/opensds/opensds/blob/master/script/CI/test>
 - 3 type of tests: unit, e2e, integration. Only implemented for hotpot so far.
 - <https://github.com/opensds/opensds-installer/blob/master/.travis.yml> (minimum check to see if ansible can run in opensds-installer repo)
 - OpenSDS tests need improvement
 - [Noel] OPNFV testing framework
 - [1] <https://www.openstack.org/summit/berlin-2018/summit-schedule/events/21980/leveraging-opnfv-test-tools-beyond-the-nfv-domain>
 - [2] https://fosdem.org/2019/schedule/event/opnfv_testing_infrastructure_and_services/
 - [3] <https://wiki.opnfv.org/display/testing/TestPerf>
 - Leon has done integration with Yardstick (part of Stor4NFV project). We have to deploy OpenSDS with OPNFV in order to use it, can't use it independently. Too much overhead if we only want to test OpenSDS independently.
 - We can borrow ideas from OPNFV, especially for integration with other projects, i.e., OpenStack.
 - [Xulin] KubeEdge testing framework
 - Go Test Framework :
Ginkgo: <https://github.com/onsi/ginkgo>
Gomega: <https://onsi.github.io/gomega/>
 - Kubeedge Integration test for Reference :
Link: <https://github.com/kubeedge/kubeedge/tree/master/edge/test/integration>
Docs: <https://github.com/kubeedge/kubeedge/tree/master/edge/test/integration/docs>
 - CI/CD: Travis-CI
 - For Docs: <https://docs.travis-ci.com/>
 - Sample Travis-CI Config:

- <https://github.com/kubeedge/kubeedge/blob/master/.travis.yml> (kubeedge)
 - Ci-BOT:
 - Ci-bot under Huawei's open source repo (apache2 license): <https://github.com/Huawei-PaaS/ci-bot>
 - Repo: <https://github.com/Huawei-PaaS/ci-bot.git>
 - We can use Ginkgo, Gomega, and ci-bot.
- Design reviews
 - [Xing] Monitoring design update
 - https://docs.google.com/document/d/1cEXyjbIW6uGrYD60GYCL-_feGVUsgPobXR0oGchalWQ/edit?usp=sharing
 - Take a look of <http://stor2rrd.com> to see how metrics from different storage systems are displayed.
- Development issues
 - Click2Cloud:
 - GCP PR merged!
 - Ansible multi-node installer. WIP. Some issues with OpenSDS daemon.
 - Ansible multi-backend PR review in progress
 - Ceph replication: RBD mirroring: pool-level (test is successful) and image-level. Pool 1 in Ceph cluster 1 can be replicated to pool 2 in Ceph cluster 2. Next: figure out image-level mirroring. If that works, maybe we can implement volume level replication/failover in OpenSDS for Ceph.
 - Noel's PR is being reviewed by Leon. Getting close to be merged.
 - <https://github.com/opensds/opensds-installer/pull/114>
- Capri planning
 - https://docs.google.com/spreadsheets/d/1OZat5p1Hz5Df7eCb30stPp112Wg8_pfnceVvATGgeVI/edit?usp=sharing
 - Latest roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

February 21, 2019

Meeting will be on Feb 21, 2019 Thursday 5:00pm-6:00pm PT or 8:00pm-9:00pm ET (or Feb 22, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (5:00pm-6:00pm PT or 8:00pm-9:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Qiaowei] Qiaowei gave a design overview of NVMeoF driver
 - https://github.com/qwren/design-specs/blob/nvmeof/specs/nvmeof_support.md
 - Comments from Kei: Clarify what protocol may be supported, what is tested, what is not tested, and what may be planned in the future in the design spec.
 - Request for Qiaowei to give an introduction of NVMeoF technology as most folks in the meeting are not familiar with it. Qiaowei will do it in the next Thursday's meeting time.
 - [Pravin] Pravin continued Fileshare design
 - A WIP doc:
https://docs.google.com/document/d/1lcaKI8ht7ZYyP0mGm8WN_jC1DH62wpJpZ5NiDuogT9g/edit?ts=5c6eac90
 - Comments: Add the Manila Generic section from the old doc back to this new doc. Describe what steps need to be performed in OpenStack (i.e., create share network, etc.) before using OpenSDS southbound Manila driver to create a file.
 - Comments: Need to add profile id as Create Share input parameter
 - Comments: Add a section to compare Manila API and Swordfish API
 - Check frameworks in Hotpot, multi-cloud. Some other design work for reference:
 - Modularize:
https://docs.google.com/document/d/1q02NVogtnzauzVwxyyLxwbAv_RktnYKHHpFuVWM6lhs/edit#
 - Thin OpenSDS:
https://docs.google.com/document/d/16zLCE1X8bNjkGoKvBpqDZaxEHZapWluQVgdlxuR_tE/edit#
 - Leon's refactoring proposal:
<https://github.com/opensds/design-specs/pull/17>
- Development update
 - Click2Cloud:
 - GCP object store backend and data migration PRs submitted and being reviewed by Shufang
 - Ansible multi-backend PR is being reviewed by Leon
 - Ansible multi-node is being investigated. Will manually try first.
 - IBM: IBM object store backend adapter is WIP (POC using S3 works)
- Capri planning.

- Planning sheet:
https://docs.google.com/spreadsheets/d/1OZat5p1Hz5Df7eCb30stPp112Wg8_pfnceVvATGgeVI/edit?usp=sharing
- Latest roadmap:
<https://github.com/opensds/design-specs/blob/master/roadmap.png>
- Capri release schedule:
<https://releases.opensds.io/capri/index.html>
- Open discussions

February 12, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (8:00am-9:00am PT or 11:00am-12:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- [Sean] Quick update from Sean on SNIA event
 - Sean gave an update on the SNIA Annual Members' Symposium event he attended at the end of January. It is like a design summit. There were interest from other vendors on how Swordfish API is implemented in OpenSDS.
 - <https://www.snia.org/events/symp>
- Design reviews
 - [Pravin] Pravin shared his initial design on fileshare support based on Manila and also compared fileshare API in Swordfish and Manila. Will investigate more on Swordfish fileshare support compared to Manila and identify gaps.
 - Share network is a concept in Manila tied with Neutron. It is not in Swordfish API. For default fileshare driver in OpenSDS, we can assume share network is already set up by the admin.
 - OpenSDS should not be dependent on OpenStack. We will write a southbound Manila driver to support Manila if OpenStack is involved.
 - OpenSDS file service should not be dependent on block service.
 - Manila also has share instances used for migration/replication. We don't need them in OpenSDS.
 - Take a look of scheduler in Hotpot and try to use common parts. Maybe put common filters in a lib.
 - QoS will be part of profiles and similar to what we did in Hotpot.
 - We should have a policy engine that works for both block and file services. Also take into consideration of the object service in multi-cloud.
 - <https://developer.openstack.org/api-ref/shared-file-system/?expanded=create-share-detail#create-share>
 - <https://docs.openstack.org/manila/rocky/admin/index.html>

- https://www.snia.org/tech_activities/standards/curr_standards/swordfish
- Development issues
 - [Click2Cloud]:
 - GCP has different authentication mechanism than AWS and Azure. How to use common approach to authenticate when adding GCP as a multi-cloud backend? Himanshu has experience with GCP from previous work. May need to use different APIs. Himanshu will investigate and work with Archana.
 - Findings: Ceph RBD Replication does not have volume level failover so we can't add replication support for it in OpenSDS.
 - Multi-backend install PR is WIP. Will work on multi-dock/multi-node install next.
 - [Noel]:
 - Salt install script is being reviewed and getting close to be merged.
 - Will raise issues on Multi-backend and installation with existing Ceph and assign to himself.
 - Xing/Leon needs to give Noel permission to be assigned.
 - Question on using the same Keystone credentials when using Cinder stand-alone as backend. Will test and open issues in Cinder if there are issues and bring it to Jay's attention.
- Capri planning
 - https://docs.google.com/spreadsheets/d/1OZat5p1Hz5Df7eCb30stPp112Wg8_pfnceVvATGgeVI/edit?usp=sharing
 - Latest roadmap: <https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri milestone-1 was released last week. It mainly includes bug fixes. The work on OpenSDS Ansible install with existing Ceph by Click2Cloud is included in milestone-1 as well.
 - Capri release schedule: <https://releases.opensds.io/capri/index.html>
- Open discussions

February 7, 2019

Meeting will be on Feb 7, 2019 Thursday 5:00pm-6:00pm PT or 8:00pm-9:00pm ET (or Feb 8, 2019 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (5:00pm-6:00pm PT or 8:00pm-9:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
 - [Himanshu] Reviewed :
<https://github.com/opensds/design-specs/pull/18>
 - Sanil suggested we can use SPIFFE (Secure Production Identity Framework For Everyone), a CNCF Sandbox project, for identity management. Will discuss more and give an overview in a future meeting.
- Development update
 - [Click2Cloud]: Investigated Ceph replication support. Will check failover commands at both whole cluster level and one volume pair (mirror) level.
 - [Click2Cloud]: Development for GCP multi-cloud backend started.
 - [Click2Cloud]: Installation
 - Ansible installation with existing Ceph backend is complete and merged:
<https://github.com/opensds/opensds-installer/pull/101>
 - PR for Helm installation with Ceph is submitted. Need reviews.
<https://github.com/opensds/opensds-installer/pull/109>
 - Development for multi-backend/multi-dock is work in progress. Added support for 3 backends including LVM, Ceph, and Cinder, but not shown in Dashboard. Suggested to make it configurable and make 1 backend the default. Also make multi-dock configurable. Will submit a WIP PR with questions on dashboard display.
- Capri planning.
 - Planning sheet updated:
https://docs.google.com/spreadsheets/d/1OZat5p1Hz5Df7eCb30stPp112Wg8_pfnceVvATGgeVI/edit?usp=sharing
 - Latest roadmap:
<https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Capri release schedule:
<https://releases.opensds.io/capri/index.html>
 - Capri milestone-1 will be released soon.
- Open discussions
 - Pravin has a draft design for file share support. Will write a native generic driver for testing. Will review design in the next Tuesday's meeting.

January 29, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (8:00am-9:00am PT or 11:00am-12:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Design reviews
- Development issues
 - Click2Cloud continues working on installation with 2 backends using ansible.
 - Reviewed how Ceph RBD migration is implemented in Cinder. We can use similar approach to implement RBD migration in OpenSDS.
 - Ceph RBD replication in Cinder is for the whole backend. Click2Cloud will investigate whether replication is supported at volume level for Ceph RBD and give a report in the next meeting.
 - <https://github.com/openstack/cinder/blob/master/cinder/volume/drivers/rbd.py>
- Capri planning.
 - https://docs.google.com/spreadsheets/d/1OZat5p1Hz5Df7eCb30stPp112Wg8_pfnceVvATGgeVI/edit?usp=sharing
 - Latest roadmap:
<https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Sean submitted a PR on the Capri release schedule:
<https://github.com/opensds/releases/pull/3/files>
- Open discussions

January 24, 2019

Meeting will be on Jan 24, 2018 Thursday 5:00pm-6:00pm PT or 8:00pm-9:00pm ET (or Jan 25, 2018 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (5:00pm-6:00pm PT or 8:00pm-9:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- [Jay] Monitoring:
<https://docs.google.com/document/d/1cEXyjblW6uGrYD60GYCL-feGVUsgPobXR0oGc halWQ/edit?usp=sharing>
 - Discussed with Jay on having a metrics exporter on Dock. Dock should have most metrics we need. Cinder driver storage backend with only Cinder driver can implement only the metrics volume interfaces and it can be used next to the

Cinder driver. Metrics exporter on the controller node can collect operation duration, etc.

- Leon: Can use existing Ceph exporter in Prometheus if using Ceph backend.
 - https://github.com/digitalocean/ceph_exporter
 - https://github.com/blemmenes/radosgw_usage_exporter
- [Qiaowei] NVMeoF driver update: Intel has developed initiator and target for NVMeoF. Will use LVM for testing. Have not tested on real set up yet. Will find a real set up and test next. Will have a design spec and present in the meeting of Feb. 21 and submit code by the second milestone March 25th.
- Other development issues
 - Click2Cloud shared the use cases on telemetry and analytics for agriculture and airline industry
 - Update from Click2Cloud: Developed multi-backend support for both LVM and Ceph in the Ansible deployment tool. Will add other backends soon.
- Capri planning.
 - https://docs.google.com/spreadsheets/d/1OZat5p1Hz5Df7eCb30stPp112Wg8_pfnceVvATGgeVI/edit?usp=sharing
 - Latest roadmap:
<https://github.com/opensds/design-specs/blob/master/roadmap.png>
 - Sean submitted a PR on the Capri release schedule:
<https://github.com/opensds/releases/pull/3/files>
- Open discussions

January 15, 2019

It is held bi-weekly on Tuesdays at 4:00pm-5:00pm UTC (8:00am-9:00am PT or 11:00am-12:00pm ET). Zoom Link: <https://zoom.us/j/777978108>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Capri planning.
 - https://docs.google.com/spreadsheets/d/1OZat5p1Hz5Df7eCb30stPp112Wg8_pfnceVvATGgeVI/edit?usp=sharing
- Design reviews
 - Monitoring:
https://docs.google.com/document/d/1cEXyjbIW6uGrYD60GYCL-_feGVUsgPobXR0oGchalWQ/edit?usp=sharing
 - Click2Cloud has done some work in Telemetry and will share their findings.
 - Decouple API framework design:
<https://github.com/opensds/design-specs/pull/17>

- PRs need attention
 - Noel's PR on salt installer is getting close. Addressed comments from Leon: <https://github.com/opensds/opensds-installer/pull/13>
- Development issues
 - Click2Cloud has by-passed the Ceph installation issue by using Ansible; They are investigating some new errors encountered for Helm installation.
 - Clarified requirements for multi-driver and multi-dock ansible installation.

January 10, 2019

Meeting will be on Jan 10, 2018 Thursday 5:00pm-6:00pm PT or 8:00pm-9:00pm ET (or Jan 11, 2018 Friday 1:00am-2:00am UTC)

It is held bi-weekly at 1:00am-2:00am UTC on Fridays (5:00pm-6:00pm PT or 8:00pm-9:00pm ET on Thursdays). Zoom Link: <https://zoom.us/j/229373941>

Agenda/Notes: (Please add items you want to discuss in the agenda and add your name next to it)

- Had very high level overview of features planned for Capri. Note that this is work in progress and still needs lots of planning details. Items not completed in Bali need to be moved to Capri as well.
 - https://docs.google.com/spreadsheets/d/1OZat5p1Hz5Df7eCb30stPp112Wg8_pfnceVvATGgeVI/edit?usp=sharing
- Keystone requirement for multi-openstack - The WIP multi-region related Keystone feature is targeted for users coming from LDAP only, so it is not for the case where users are stored in mysql. Still need to look into Federated Identity. <https://docs.openstack.org/keystone/latest/admin/federation/introduction.html>.
- Click2Cloud is working on OpenSDS Helm install with Ceph, but run into problems with Ceph Helm installation itself (which is from Ceph Helm community). Will focus on other items first and come back to the Ceph issue.
- Leon is working on Modularize Hotpot. Will update the design doc soon.
- Reviewed WIP design doc on monitoring:
 - https://docs.google.com/document/d/1cEXyjbIW6uGrYD60GYCL-_feGVUsgPobXR0oGchalWQ/edit?usp=sharing
- Open discussions