2022-01-11 - Anuket: RA-1 (OpenStack based) What's next?

Topic Leader(s)

- Karine Sevilla
- Pankaj Goyal
- Ildiko Vancsa

Topic Overview

60 minutes

The intent is to solicit inputs for RA-1 in order to adjust the content of Moselle release.

Topics of interest: what else, acceleration, Telco edge cloud, multi-cloud/hybrid cloud, storage, and automation

Slides & Recording

YouTube

Live Interactive Session

Slides: LFN-DDTF-2022-01-11-RA1.pdf

Recording: LFN-DDTF-2022-01-Anuket-RA1.mp4

Agenda

- Status of Lakelse release and scope of what is covered
- Brainstorm on what needs to be included/modified in RA-1
- Acceleration: feedbacks required on the use of Cyborg and on the support of accelerators like FPGA, smartNIC or GPU
- Telco edge cloud
- Multi-cloud/hybrid cloud
- Storage: solutions beyond CEPH
- Automation: Cloud provisioning, LCM

Minutes

Quick presentation on RA-1 Lakelse Release

Acceleration

- Walter KozlowskiAdd Cyborg to RI and RC?
- Beth CohenHW Acceleration in private cloud. What are we doing, for example, for crypto?
- John HartleyHW Acceleration at Edge is absolutely necessary
    - pls see Edge below
- Riccardo Gasparetto Stori RA2 has some requirements on HW acceleration
- Riccardo Gasparetto Storiuse k8s for scheduling of resource requests, consumption and management incl scaling. Plugins for acceleration devices. Examples: encryption acceleration.
- Karine Sevilla we need use cases to justify further work on HW ACceleration in RA1. Use case with compute intensive requirements can be a candidate.

Edge

- Is OpenStack relevant for the Edge?
- Ildiko VancsaWhat constitutes Edge?
- Beth CohenVZN has several products at the Edge incl. OpenStack at the Edge. Minimal OSTK on 1 or 2 cores.
    - Another product, K8s on OpenStack allowing customers to run their workloads.
        - Retail, manufacturing, small office environments
    - Tenant management is the tricky point
- Beth Cohen Ildiko VancsaWindriver deploys services with OpenStack at the edge
- John Hartley wind river are significant contributer to starlingX project
- Gaps: Tools for deployment, config, updates, ...

    - HW disaggregation is still hard
    - Testing and verification support for HW and service chains

Hybrid and multi-cloud

- Pankaj Goyal should RA1 deal with hybrid/multi-cloud
    - or just keep to private/on-prem specs
- John HartleyAnuket to orchestrate hybrid multi-cloud
- Karine SevillaWe must check if services orchestration within a hybrid multi cloud environment is adressed by other communities, such as ONAP
- Beth CohenIt can be a cross communities topic
- Walter Kozlowski John Hartley RM should address orchestration at least for network, interactions needed between RM and RAs
- John Hartley Check ETSI documents on network orchestration
- Karine SevillaNo feedback from the audience on OMNI project adoption
- Ildiko Vancsa OMNI doesn’t seem to be active, the last changes in the repo were ~3 years ago

Storage

- Cedric Ollivier:
    - From an API point of view, we don't deal with CEPH but storage features exposed by the API
    - CNTT RC1 was also verified vs the default backend used in OpenStack gates
- John Hartley Should see how Storage Model from RM can be achieved with RA-1 architecture.

Automation

- This is a key component that I think has been overlooked.
- Karine SevillaLack of time to address automation during the session

Action Items

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