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

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 Kozlowski Add Cyborg to RI and RC?
- Beth Cohen HW Acceleration in private cloud. What are we doing, for example, for crypto?
- John Hartley HW Acceleration at Edge is absolutely necessary
  - pls see Edge below
- Riccardo Gasparetto Stori RA2 has some requirements on HW acceleration
- Riccardo Gasparetto Stori use 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 Vancsa What constitutes Edge?
- Beth Cohen VZN 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 Vancsa Windriver deploys services with OpenStack at the edge
- John Hartley wind river are significant contributor 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 Hartley Anuket to orchestrate hybrid multi-cloud
• Karine Sevilla We must check if services orchestration within a hybrid multi cloud environment is addressed by other communities, such as ONAP
• Beth Cohen It 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 Sevilla No 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 Sevilla Lack of time to address automation during the session

Action Items