ONAP Integration

CI/CD chains in Windriver/intel labs

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History

History

- Windriver/Intel lab = historical DC for ONAP integration work

- Available since Amsterdam version (installed in 2017)

- 40+ updtes + major live upgrade

- Used by lots of projects

- Titanium based on OpenStack Pike
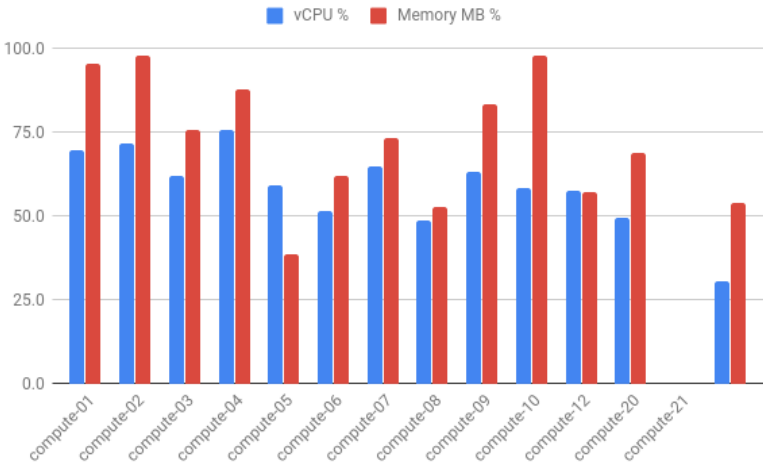
History

- Cleanup done after frankfurt

	3/06/2020	2/07/2020
CPU	67 %	52 %
RAM	88 %	69 %
Disk	58 %	50 %

Projects 3/6/2020	Projects 2/7/2020
128	43

	3/6/2020	2/7/2020
Users	777	519
VMs	398	320
Networks	134	101
Security Groups	185	19
Floating IPs	519	458
Volume	2204	106

History

- Performance audit

+----+------------------+--------------+----------+---------+-------+------------------------------+ | ID | Binary | Host | Zone | Status | State | Updated At | +----+------------------+--------------+----------+---------+-------+------------------------------+ | 55 | nova-compute | compute-20 | nova | disabled | down | 2019-10-07T12:32:45.525114 | | 1 | nova-consoleauth | controller-0 | internal | enabled | down | 2020-08-05T09:51:58.863645 | | 26 | nova-scheduler | controller-1 | internal | enabled | up | 2020-09-01T08:21:14.618273 | | 24 | nova-cert | controller-1 | internal | enabled | down | 2018-08-18T18:31:01.984841 | | 56 | nova-compute | compute-21 | nova | disabled | down | 2020-09-01T08:21:17.449694 | | 40 | nova-compute | compute-06 | nova | enabled | up | 2020-09-01T08:21:19.634039 | | 19 | nova-conductor | controller-1 | internal | enabled | up | 2020-09-01T08:21:21.280003 | | 3 | nova-cert | controller-0 | internal | enabled | down | 2018-08-18T18:31:02.066108 | | 38 | nova-compute | compute-05 | nova | enabled | up | 2020-09-01T08:21:17.692863 | | 25 | nova-consoleauth | controller-1 | internal | enabled | up | 2020-09-01T08:21:17.893385 | | 57 | nova-compute | compute-03 | nova | enabled | up | 2020-09-01T08:21:18.884902 | | 44 | nova-compute | compute-07 | nova | enabled | up | 2020-09-01T08:21:18.906287 | | 33 | nova-compute | compute-00 | nova | enabled | up | 2020-09-01T08:21:20.337686 | | 39 | nova-compute | compute-01 | nova | enabled | up | 2020-09-01T08:21:21.314087 | | 4 | nova-conductor | controller-0 | internal | enabled | down | 2020-08-05T09:52:09.419338 | | 37 | nova-compute | compute-08 | nova | enabled | up | 2020-09-01T08:21:13.144086 | | 41 | nova-compute | compute-12 | nova | enabled | up | 2020-09-01T08:21:15.011819 | | 36 | nova-compute | compute-04 | nova | enabled | up | 2020-09-01T08:21:16.194276 | | 2 | nova-scheduler | controller-0 | internal | enabled | down | 2020-08-05T09:51:59.526144 | | 49 | nova-compute | compute-12 | nova | enabled | up | 2020-09-01T08:21:16.415811 | | 46 | nova-compute | compute-09 | nova | enabled | up | 2020-09-01T08:21:17.263266 | | 51 | nova-compute | compute-10 | nova | enabled | up | 2020-09-01T08:21:17.424812 | +----+------------------+--------------+----------+---------+-------+------------------------------+

vCPU %   Memory MB %

TCP, L3 and L3 Floatting

TCP   L3   L3 Floatting
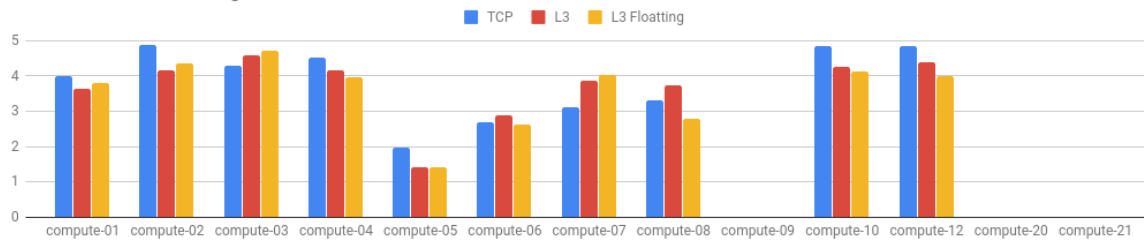
Reinstallation to be programmed

« Given this lab was installed in 2017, it has had a major live upgrade and between the two loads 40+ updates. I would agree that we should clean it up, remove the instances and images, including moving the virtual jump station off of it over a native server delete all the nodes and reinstalling with an ISO that is patch current. In this case it would still be Pike. I would not be able to move the lab to Train, which would also include native K8S support until Q4.

What would we need to do to inform the community that we are starting fresh? »

S.Gooch (mail 18/09/2020)

CI/CD on windriver lab

- Historically based on a VM hosting a jenkins server installed by G.WU
- Networks/tenants preconfigured (SB-00, SB-01, ...Staging-Daily, Release-Daily)
- Jenkins script run from the jenkins server daily (schedule) on on deman (SB-0X labs for the use cases)
- Cloning ONAP repo and using set of overide files hosted in OOM or integration repo (but not lots of doc)
- Managed by Marco after Gary

CI/CD on windriver lab

- Due to performance issue, only SB-00 was kept for Guilin (1 more or less working versus 6 not working at all)

- Jenkins scripts not really maintained, none of the scheduled deployements were PASS (installation, tests or both)

- All tests were based on robot tests hosted in testsuite repo (healthcheck, vFWCL, scaleout)

- Decorelation with OOM (Frankfurt tests done on old versions of helm and kubernetes – not OOM recommended versions)

CI/CD on windriver lab

Status jenkins mid 2020

Status

Status

- Only SB-00 managed for Guilin
  - Initially using the script (but manual adaptions needed)
  - 3 reinstallations done during Guilin release cycle
  - Mainly used by MDONS project for Guilin (need an interco to their controller)
  - Better stability than in frankfurt even if looked slower than on the second staging lab (Azure)

Status

- After a manual try => all VMs in infrastructure project have been cleaned (first action of the script was to delete all the VM of the project..but the rc file used before running the script was not the good one)

- We lost the historical jenkins VM, no backup/snapshot found

- Gitlab-runner installed in Windriver and usable from gitlab.com BUT I failed (openstack ansible very slow, I am missing a configuration somewhere) once fixed, if fixed one day, current daily/gating CI/CD chains could be executed on Windriver/Intel lab.

- Moved to another installation (leveraging procedure used in Nokia lab, installation done by Dan)

Community CI/CD chains

- Master daily : reinstallation of OOM every day / on Orange servers
- Master_ingress_daily : use ingress config rather than legacy version of OOM / on Orange servers
- Master weekly : reinstallation of OOM every week – for longer duration tests/ stability tests/… / on Orange servers
- Guilin Daily : daily run of the OOM guilin / on Orange servers
- Frankfurt Daily : run of the Frankfurt OOM (daily at the beginning and progressively weekly to save CI/CD time and assuming that there is no more lots of evolution) / on Orange servers
- Gating : from 0 to 6 gates (4 in Orange labs / 2 in Azure)
- Experimental Gating : 1 lab to test new OOM feature / Azure
- Staging Azure : Guilin staging for Guilin release redeployed on demand / on Azure
- SB-00 : Guilin staging for Guilin Release redeployed on demand / On windriver/Intel lab deployed by Dan (Nokia)
- Orange Openlab : a stable frankfurt lab (no rinstallation until we got issue) open to anybody (only user role) / on Orange servers

Note : DT/Nokia/Samsung/E//·.. have also CI/CD chains, DT is sharing their daily results in the Test DB

Community CI/CD chains

- What do we want to test/prove with these CI/CD chains...
  - Stability of the Master « do not break master », so we can release from master at any time..
  - Stability of the last stable - detect regressions (uptream dependencies, certificates,…) - we garantee that we can reinstall last version strable and troubleshoot if any issue
  - Evaluate several OOM installation options (legacy to cloud native passing by ingress/ service mesh)
  - Evaluate several versions of the key components (infra installer (heat/Openstack API/ terraform), kubernetes installer (RKE/kubespray), network driver of k8s, helm 2/helm3)
  - Support use cases (for the moment they are sharing 2 staging labs)

Plans

Plans : Chains for Honolulu ?

- Daily
  - Master
  - Guilin (stable)
  - Frankfurt (Stable N-1) ?
  - Master Ingress
  - Master Service Mesh

Plans : Chains for Honolulu ?

- Weekly
  - Master

Plans : Chains for Honolulu ?

- Use cases
  - 1 chain per use case (4 use cases in Guilin) ? With override hosted in use case repo
  - 2 staging ?

Plans : Chains for Honolulu ?

- Diversity
  - Infra
    - Terraform chain / Heat / OS_infra manager (ansible + Openstack API)
  - K8s
    - Installer : RKE/Kubespray
    - Version : 1,19, 1,x
    - Network plugin : istio, flanel, calico,..

Plans : Chains for Honolulu ?

- Diversity
  - Offline installer ?
  - MVP ? Smaller ONAP
  - Others ?

Plans

- I hope that we could have at least 6 CI/CD chains in new Windriver/Intel lab
  - 4 for use cases
  - 2 for Integration (staging/daily/…)
- Any other company is more than welcome to host a community CI/CD chains…
  - Gating (avoid bottleneck)
  - More diversity

Openstack way ?

- For use case with Third party equipement, it would be nice that the company promoting the use case set up a CI/CD chain to garantee that it is well working
  - External SDN controller
  - External AI/ML components
  - External security equipments..
- Prerequisites if automation becomes « more mandatory » , no ?