Interop WG Board Report

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Interop Working Group Charter

Interop Working Group sets base requirements by defining 1) capabilities, 2) code and 3) must-pass tests for all OpenStack products. This definition uses community resources and involvement to drive interoperability by creating the minimum standards for products labeled "OpenStack."

Our mission is to define "OpenStack Core" as chartered by the by-laws.

https://wiki.openstack.org/wiki/Governance/InteropWG

Agenda

- General Updates
- Request to approve 2019.11 Guideline
- Request to approve 2019.11 DNS Add-On Guideline
- Request to approve 2019.11 Orchestration Add-On Guideline
- Future of OpenStack Interop program

General Updates

- Stable guidelines
- Little/no community involvement

Request to Approve 2019.11 Guideline

The Interop WG has worked on the 2018.11 guideline and has solicited community feedback. Both compute and object components gained new capabilities.

Full 2019.11 guideline pull request: https://review.opendev.org/#/c/691965/1

Side-by-side comparison of 2018.11 and 2019.06 guidelines

Releases covered in 2019.06, dns.2019.06, and orchestration.2019.06: queens, rocky, stein, train.

Releases covered in 2019.11, dns.2019.11, and orchestration.2019.11: rocky, stein, train, ussuri.

Besides updates to the covered releases, no other changes to dns.2019.11 and orchestration.2019.11 guidelines.

Side-by-side comparison of 2018.11 and 2019.06 guidelines:

2019.06	2019.11
Compute	
Required Capabilities	Required Capabilities
compute-availability-zones-list (Nova)	compute-availability-zones-list (Nova)
compute-flavors-list (Nova)	compute-flavors-list (Nova)
compute-images-create (Nova)	compute-images-create (Nova)
compute-instance-actions-get (Nova)	compute-instance-actions-get (Nova)
compute-instance-actions-list (Nova)	compute-instance-actions-list (Nova)
compute-keypairs-create (Nova)	compute-keypairs-create (Nova)
compute-keypairs-create-type (Nova)	compute-keypairs-create-type (Nova)
compute-list-api-versions (Nova)	compute-list-api-versions (Nova)
compute-quotas-get (Nova)	compute-quotas-get (Nova)
compute-servers-create (Nova)	compute-servers-create (Nova)
compute-servers-create-multiple (Nova)	compute-servers-create-multiple (Nova)
compute-servers-delete (Nova)	compute-servers-delete (Nova)
compute-servers-get (Nova)	compute-servers-get (Nova)
compute-servers-host (Nova)	compute-servers-host (Nova)
compute-servers-invalid (Nova)	compute-servers-invalid (Nova)
compute-servers-list (Nova)	compute-servers-list (Nova)
compute-servers-lock (Nova)	compute-servers-lock (Nova)
compute-servers-name (Nova)	compute-servers-name (Nova)
compute-servers-reboot (Nova)	compute-servers-reboot (Nova)
compute-servers-rebuild (Nova)	compute-servers-rebuild (Nova)
compute-servers-resize (Nova)	compute-servers-resize (Nova)
compute-servers-stop (Nova)	compute-servers-stop (Nova)

compute-servers-update (Nova) compute-servers-update (Nova) compute-servers-verify (Nova) compute-servers-verify (Nova) compute-servers-metadata-delete (Nova) compute-servers-metadata-delete (Nova) compute-servers-metadata-get (Nova) compute-servers-metadata-get (Nova) compute-servers-metadata-list (Nova) compute-servers-metadata-list (Nova) compute-servers-metadata-set (Nova) compute-servers-metadata-set (Nova) compute-servers-metadata-update (Nova) compute-servers-metadata-update (Nova) compute-volume-attach (Nova) compute-volume-attach (Nova) identity-v3-api-discovery (Keystone) identity-v3-api-discovery (Keystone) identity-v3-catalog (Keystone) identity-v3-catalog (Keystone) identity-v3-list-projects (Keystone) identity-v3-list-projects (Keystone) identity-v3-tokens-create (Keystone) identity-v3-tokens-create (Keystone) identity-v3-tokens-delete (Keystone) identity-v3-tokens-delete (Keystone) identity-v3-tokens-validate (Keystone) identity-v3-tokens-validate (Keystone) images-v2-index (Glance) images-v2-index (Glance) images-v2-update (Glance) images-v2-update (Glance) images-v2-list (Glance) images-v2-list (Glance) images-v2-delete (Glance) images-v2-delete (Glance) images-v2-get (Glance) images-v2-get (Glance) networks-I2-CRUD (Neutron) networks-I2-CRUD (Neutron) networks-I3-router (Neutron) networks-I3-router (Neutron) networks-I3-CRUD (Neutron) networks-I3-CRUD (Neutron) networks-list-api-versions (Neutron) networks-list-api-versions (Neutron) networks-security-groups-CRUD (Neutron) networks-security-groups-CRUD (Neutron) networks-subnet-pools-CRUD (Neutron) networks-subnet-pools-CRUD (Neutron) volumes-list-api-versions (Cinder) volumes-list-api-versions (Cinder) volumes-v2-create-delete (Cinder) volumes-v2-create-delete (Cinder) volumes-v2-snapshot-create-delete (Cinder) volumes-v2-snapshot-create-delete (Cinder) volumes-v2-get (Cinder) volumes-v2-get (Cinder) volumes-v2-list (Cinder) volumes-v2-list (Cinder) volumes-v2-update (Cinder) volumes-v2-update (Cinder) volumes-v2-copy-image-to-volume (Cinder) volumes-v2-copy-image-to-volume (Cinder) volumes-v2-clone (Cinder) volumes-v2-clone (Cinder) volumes-v2-availability-zones (Cinder) volumes-v2-availability-zones (Cinder) volumes-v2-extensions (Cinder) volumes-v2-extensions (Cinder) volumes-v2-metadata (Cinder) volumes-v2-metadata (Cinder) volumes-v2-reserve (Cinder) volumes-v2-reserve (Cinder) volumes-v2-readonly (Cinder) volumes-v2-readonly (Cinder) volumes-v2-upload (Cinder) volumes-v2-upload (Cinder) volumes-v3-create-delete (Cinder) volumes-v3-create-delete (Cinder) volumes-v3-snapshot-create-delete (Cinder) volumes-v3-snapshot-create-delete (Cinder) volumes-v3-get (Cinder) volumes-v3-get (Cinder) volumes-v3-list (Cinder) volumes-v3-list (Cinder) volumes-v3-update (Cinder) volumes-v3-update (Cinder) volumes-v3-copy-image-to-volume (Cinder) volumes-v3-copy-image-to-volume (Cinder) volumes-v3-clone (Cinder) volumes-v3-clone (Cinder) volumes-v3-availability-zones (Cinder) volumes-v3-availability-zones (Cinder)

volumes-v3-extensions (Cinder) volumes-v3-metadata (Cinder) volumes-v3-reserve (Cinder) volumes-v3-readonly (Cinder) volumes-v3-upload (Cinder)

Advisory Capabilities

Deprecated Capabilities

None

Removed Capabilities volumes-v2-reserve volumes-v3-reserve volumes-v2-create-delete volumes-v2-spanshot-cre

volumes-v2-snapshot-create-delete

volumes-v2-get volumes-v2-list volumes-v2-update

volumes-v2-copy-image-to-volume

volumes-v2-clone

volumes-v2-availability-zones

volumes-v2-extensions volumes-v2-metadata volumes-v2-readonly volumes-v2-upload volumes-v3-extensions (Cinder) volumes-v3-metadata (Cinder) volumes-v3-reserve (Cinder) volumes-v3-readonly (Cinder) volumes-v3-upload (Clnder)

Advisory Capabilities

Deprecated Capabilities

None

Removed Capabilities

Object

Required Capabilities

objectstore-account-quotas (Swift)
objectstore-account-list (Swift)
objectstore-container-acl (Swift)
objectstore-container-quotas (Swift)
objectstore-container-create (Swift)
objectstore-container-delete (Swift)
objectstore-container-list (Swift)
objectstore-container-metadata (Swift)

objectstore-info-request (Swift)
objectstore-object-copy (Swift)
objectstore-object-create (Swift)
objectstore-object-delete (Swift)
objectstore-object-get (Swift)
objectstore-object-versioned (Swift)

objectstore-object-versioned (Swift) objectstore-temp-url-get (Swift) objectstore-temp-url-put (Swift)

Required Capabilities

objectstore-account-quotas (Swift) objectstore-account-list (Swift) objectstore-container-acl (Swift) objectstore-container-quotas (Swift) objectstore-container-create (Swift) objectstore-container-delete (Swift) objectstore-container-list (Swift) objectstore-container-metadata (Swift) objectstore-info-request (Swift) objectstore-object-copy (Swift) objectstore-object-create (Swift) objectstore-object-delete (Swift) objectstore-object-get (Swift) objectstore-object-versioned (Swift) objectstore-temp-url-get (Swift) objectstore-temp-url-put (Swift)

identity-v3-tokens-create (Keystone)
identity-v3-tokens-delete (Keystone)

Advisory Capabilities

identity-v3-tokens-delete (Keystone)

Advisory Capabilities

Advisory Capabilities

None

Deprecated Capabilities

None

Removed Capabilities

None

identity-v3-tokens-create (Keystone)

identity-v3-tokens-delete (Keystone)

Advisory Capabilities

None

None

Removed Capabilities

Removed Capabilities

None

Future of OpenStack Interop Program

The current process for creating the next guideline requires talking to the project PTLs and other members of the community to determine if there are any significant changes to the projects, determining which tempest tests are associated with these changes, and scoring the changes based on interop core criteria [1]. After the scoring is complete, we discuss the results in an IRC meeting and submit patches for updating the guidelines.

With help from the community and some very dedicated people that included Chris Hoge (secretary of Interop WG, OpenStack Foundation) and Mark Voelker (co-chair of Interop WG, VMware) I have co-chaired Interop Working Group for almost 5 years. During this time the Interop guidelines have become stable, with fewer and fewer changes made in each new guideline. I think that if the board wants to continue with the guidelines as-is, with twice a year updates (or more if needed), we will need new volunteers to co-chair Interop WG and help drive the program. Another option would be to simplify the trademark program so that it doesn't require so many volunteer hours. If it relied more on contractual assertions and less on formal technical checks requiring updated guidelines, it could be directly handled by the foundation.

In addition to the guideline maintenance and updates, there is the work involved in running and maintaining RefStack. RefStack is used to validate and submit the results, and needs constant maintenance and updates as well. A more contractual interop program would not require an overhead of maintaining an additional project.

I believe that Interop guidelines are instrumental in maintaining OpenStack interoperability, however, I also believe that we need to make the program easy to maintain and abide by.

As such, I would like to hand over the program as-is to new volunteers from the board, or simplify the program down to a contract that can be directly managed by the foundation. After this next guideline, the board will need to decide what path the interop guidelines should take. Current process is strict and requires a lot of volunteer hours. While the program was being created and growing, we had a lot of community involvement. Once the guidelines became stable, we had less and less participation. Chris Hoge, a key member of the Interop Working Group, no longer works for the Foundation and we will no longer be able to count on him doing a lot of the heavy lifting when it comes to guideline changes.

[1] https://github.com/openstack/interop/blob/master/doc/source/process/CoreCriteria.rst