

Interop WG Board Report

September 7, 2017

Egle Sigler & Mark Voelker, Co-Chairs

Chris Hoge, Secretary

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 2017.09 Guideline
- Add-On Programs
- Request to approve DNS Add-On
- Request to approve Orchestration Add-On
- Overview of Vertical Program Development

General Updates

- Continue having weekly IRC meetings with good attendance.
- Continue working with RefStack team. Will share space at the PTG.
 - Will discuss potentially combining Interop WG and RefStack into a SIG.
- RefStack is adding optional capability to upload subunit results.
- Interop WG and RefStack schedule:

<https://etherpad.openstack.org/p/InteropDenver2017PTG>

- On Tuesday, discussion on SIG.

Request to Approve 2017.09 Guideline

The Interop WG has worked on the 2017.09 guideline and has solicited community feedback.

Both compute and object components gained new capabilities.

Full 2017.09 guideline pull request: <https://review.openstack.org/#/c/502328>

Full 2017.09 guideline report is available as [Appendix A](#).

Side-by-side comparison of 2017.01 and 2017.09 guidelines:

2017.01	2017.09
Compute	
Required Capabilities compute-images-create (Nova) compute-instance-actions-get (Nova) compute-instance-actions-list (Nova) compute-keypairs-create (Nova) compute-list-api-versions (Nova) compute-quotas-get (Nova) compute-servers-create (Nova) compute-servers-delete (Nova) compute-servers-get (Nova) compute-servers-host (Nova) compute-servers-invalid (Nova) compute-servers-list (Nova) compute-servers-lock (Nova) compute-servers-name (Nova) compute-servers-reboot (Nova) compute-servers-rebuild (Nova) compute-servers-resize (Nova) compute-servers-stop (Nova) compute-servers-update (Nova) compute-servers-verify (Nova) compute-servers-metadata-delete (Nova) compute-servers-metadata-get (Nova) compute-servers-metadata-list (Nova) compute-servers-metadata-set (Nova) compute-servers-metadata-update (Nova)	Required Capabilities compute-availability-zones-list (Nova) compute-flavors-list (Nova) compute-images-create (Nova) compute-instance-actions-get (Nova) compute-instance-actions-list (Nova) compute-keypairs-create (Nova) compute-list-api-versions (Nova) compute-quotas-get (Nova) compute-servers-create (Nova) compute-servers-delete (Nova) compute-servers-get (Nova) compute-servers-host (Nova) compute-servers-invalid (Nova) compute-servers-list (Nova) compute-servers-lock (Nova) compute-servers-name (Nova) compute-servers-reboot (Nova) compute-servers-rebuild (Nova) compute-servers-resize (Nova) compute-servers-stop (Nova) compute-servers-update (Nova) compute-servers-verify (Nova) compute-servers-metadata-delete (Nova) compute-servers-metadata-get (Nova) compute-servers-metadata-list (Nova) compute-servers-metadata-set (Nova)

compute-volume-attach (Nova) identity-v3-api-discovery (Keystone) identity-v3-tokens-create (Keystone) images-v2-index (Nova) images-v2-update (Glance) images-v2-list (Glance) images-v2-delete (Glance) images-v2-get (Glance) networks-l2-CRUD (Neutron) networks-security-groups-CRUD (Neutron) volumes-v2-create-delete (Cinder) volumes-v2-attach-detach (Cinder) volumes-v2-snapshot-create-delete (Cinder) volumes-v2-get (Cinder) volumes-v2-list (Cinder) volumes-v2-update (Cinder) volumes-v2-copy-image-to-volume (Cinder) volumes-v2-clone (Cinder) volumes-v2-availability-zones (Cinder) volumes-v2-extensions (Cinder) volumes-v2-metadata (Cinder) volumes-v2-reserve (Cinder) volumes-v2-readonly (Cinder) Advisory Capabilities compute-availability-zones-list (Nova) compute-flavors-list (Nova) compute-servers-suspend-resume (Nova) identity-v3-list-projects (Keystone) networks-l3-router (Neutron) networks-l3-CRUD (Neutron) networks-list-api-versions (Neutron) networks-subnet-pools-CRUD (Neutron) volumes-list-api-versions (Cinder) volumes-v2-upload (Cinder) volumes-v3-create-delete (Cinder) volumes-v3-attach-detach (Cinder) volumes-v3-snapshot-create-delete (Cinder) volumes-v3-get (Cinder) volumes-v3-list (Cinder) volumes-v3-update (Cinder)	compute-servers-metadata-update (Nova) compute-volume-attach (Nova) identity-v3-api-discovery (Keystone) identity-v3-list-projects (Keystone) identity-v3-tokens-create (Keystone) images-v2-index (Glance) images-v2-update (Glance) images-v2-list (Glance) images-v2-delete (Glance) images-v2-get (Glance) networks-l2-CRUD (Neutron) networks-security-groups-CRUD (Neutron) networks-subnet-pools-CRUD (Neutron) volumes-v2-create-delete (Cinder) volumes-v2-snapshot-create-delete (Cinder) volumes-v2-get (Cinder) volumes-v2-list (Cinder) volumes-v2-update (Cinder) volumes-v2-copy-image-to-volume (Cinder) volumes-v2-clone (Cinder) volumes-v2-availability-zones (Cinder) volumes-v2-extensions (Cinder) volumes-v2-metadata (Cinder) volumes-v2-reserve (Cinder) volumes-v2-readonly (Cinder) volumes-v2-upload (Cinder) Advisory Capabilities networks-l3-router (Neutron) networks-l3-CRUD (Neutron) networks-list-api-versions (Neutron) volumes-list-api-versions (Cinder) volumes-v3-create-delete (Cinder) volumes-v3-snapshot-create-delete (Cinder) volumes-v3-get (Cinder) volumes-v3-list (Cinder) volumes-v3-update (Cinder)
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volumes-v3-copy-image-to-volume (Cinder) volumes-v3-clone (Cinder) volumes-v3-availability-zones (Cinder) volumes-v3-extensions (Cinder) volumes-v3-metadata (Cinder) volumes-v3-reserve (Cinder) volumes-v3-readonly (Cinder) Deprecated Capabilities None Removed Capabilities compute-auth-create (Nova) compute-auth-get (Nova) compute-auth-set (Nova) compute-images-delete (Nova) compute-images-get (Nova) compute-images-list (Nova) compute-volume-get (Nova) compute-volume-list (Nova)	volumes-v3-copy-image-to-volume (Cinder) volumes-v3-clone (Cinder) volumes-v3-availability-zones (Cinder) volumes-v3-extensions (Cinder) volumes-v3-metadata (Cinder) volumes-v3-reserve (Cinder) volumes-v3-readonly (Cinder) Deprecated Capabilities volumes-v2-attach-detach (Cinder) volumes-v3-attach-detach (Cinder) Removed Capabilities None
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-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)	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)	objectstore-temp-url-put (Swift) identity-v3-tokens-create (Keystone)
Advisory Capabilities	Advisory Capabilities
objectstore-container-metadata (Swift)	None
Deprecated Capabilities	Deprecated Capabilities
None	None
Removed Capabilities	Removed Capabilities
objectstore-object-access (Swift)	None

Add-On Programs

For some time now, the Interop Working Group has been discussing the possibility of creating new interoperability programs. Specifically, we're been considering programs for specific vertical use cases and add-on programs for products that ship additional OpenStack software outside what's required of the Powered program. There have been some questions in the community about what the design of such programs might look like. There are also ongoing discussions about related topics like what tests should or should not be placed into the Tempest tree (particularly with regards to these new programs). We have a document explaining what these new add-on and vertical programs would like. To read the full document, refer to the pull request: <https://review.openstack.org/#/c/472785/>.

We have started with two add-on programs, DNS add-on and Heat add-on. During the PTG we will continue discussing other add-on and vertical programs.

Request to Approve Advisory DNS Add-On

The Interop WG has worked on the first DNS Add-On guideline and has solicited community feedback. All capabilities will be advisory until 2018.01 guideline. Add-on programs will follow the same cycle as the main guidelines.

Full dns.next.json guideline pull request: <https://review.openstack.org/#/c/492635/>

Releases covered: Mitaka, Newton, Ocata, Pike

Advisory Capabilities:

- dns-record-crud
- dns-zone-crud

Request to Approve Advisory Orchestration Add-On

The Interop WG has worked on the first Orchestration Add-On guideline and has solicited community feedback. All capabilities will be advisory until 2018.01 guideline. Add-on programs will follow the same cycle as the main guidelines.

Full orchestration.next.json guideline pull request: <https://review.openstack.org/#/c/490648/>

Releases covered: Mitaka, Newton, Ocata, Pike

Advisory Capabilities:

- stack-create
- stack-delete
- stack-environment-parameter
- stack-get-output
- stack-list
- stack-list-resource-types
- stack-list-template-functions
- stack-list-template-versions
- stack-mark-resource-unhealthy
- stack-resource-type-template
- stack-show
- stack-show-resource
- stack-show-resource-type
- stack-show-unhealthy-resource
- stack-signal-resource
- stack-validate-template

Vertical Programs

In addition to the add-on programs, which augment existing platforms, we are also pursuing the creation of new Platforms, also known as Vertical Programs. The use cases for the vertical programs covers two major use cases: Application domains and standalone projects. Our goal is to present the first round of advisory standalone programs to the board at the January 2018 Board of Directors meeting.

Application Domains

The first being targeted application domains like NFV. The Interop Working Group is currently collaborating with OPNFV, ONAP, and others to build an OpenStack guideline, and OPNFV has adopted independent use of RefStack for collecting their own test results. A discussion will take place at the PTG this week regarding a vertical program for NFV. For a summary of some capabilities that will be discussed, please visit:

<https://docs.google.com/document/d/1pYxMPHXT-Fr2Yw30zDS2KihQ2l8b2ygbHkc7Zj-qUA/edit?usp=sharing>

Standalone Projects

The second use case is in delivering stand-alone OpenStack projects, with a particular focus on use in adjacent communities. The Interop WG is hosting a session at the Denver PTG to investigate building out independent vertical programs for Swift, Cinder, and Ironic.

Appendix A

Releases Covered

Applies to Mitaka, Newton, Ocata, Pike

Platform Components

Required:	Compute, Object
Advisory:	None
Deprecated:	None
Removed:	None

Compute Component Capabilities

Required Capabilities

- compute-availability-zones-list (Nova)
- compute-flavors-list (Nova)
- compute-images-create (Nova)
- compute-instance-actions-get (Nova)
- compute-instance-actions-list (Nova)
- compute-keypairs-create (Nova)
- compute-list-api-versions (Nova)
- compute-quotas-get (Nova)
- compute-servers-create (Nova)
- compute-servers-delete (Nova)
- compute-servers-get (Nova)
- compute-servers-host (Nova)
- compute-servers-invalid (Nova)
- compute-servers-list (Nova)
- compute-servers-lock (Nova)
- compute-servers-name (Nova)
- compute-servers-reboot (Nova)
- compute-servers-rebuild (Nova)
- compute-servers-resize (Nova)
- compute-servers-stop (Nova)
- compute-servers-update (Nova)
- compute-servers-verify (Nova)
- compute-servers-metadata-delete (Nova)
- compute-servers-metadata-get (Nova)
- compute-servers-metadata-list (Nova)
- compute-servers-metadata-set (Nova)
- compute-servers-metadata-update (Nova)
- compute-volume-attach (Nova)
- identity-v3-api-discovery (Keystone)
- identity-v3-list-projects (Keystone)
- identity-v3-tokens-create (Keystone)
- images-v2-index (Glance)
- images-v2-update (Glance)
- images-v2-list (Glance)

- images-v2-delete (Glance)
- images-v2-get (Glance)
- networks-l2-CRUD (Neutron)
- networks-security-groups-CRUD (Neutron)
- networks-subnet-pools-CRUD (Neutron)
- volumes-v2-create-delete (Cinder)
- volumes-v2-snapshot-create-delete (Cinder)
- volumes-v2-get (Cinder)
- volumes-v2-list (Cinder)
- volumes-v2-update (Cinder)
- volumes-v2-copy-image-to-volume (Cinder)
- volumes-v2-clone (Cinder)
- volumes-v2-availability-zones (Cinder)
- volumes-v2-extensions (Cinder)
- volumes-v2-metadata (Cinder)
- volumes-v2-reserve (Cinder)
- volumes-v2-readonly (Cinder)
- volumes-v2-upload (Cinder)

Advisory Capabilities

- networks-l3-router (Neutron)
- networks-l3-CRUD (Neutron)
- networks-list-api-versions (Neutron)
- volumes-list-api-versions (Cinder)
- volumes-v3-create-delete (Cinder)
- volumes-v3-snapshot-create-delete (Cinder)
- volumes-v3-get (Cinder)
- volumes-v3-list (Cinder)
- volumes-v3-update (Cinder)
- volumes-v3-copy-image-to-volume (Cinder)
- volumes-v3-clone (Cinder)
- volumes-v3-availability-zones (Cinder)
- volumes-v3-extensions (Cinder)
- volumes-v3-metadata (Cinder)
- volumes-v3-reserve (Cinder)
- volumes-v3-readonly (Cinder)

Deprecated Capabilities

- volumes-v2-attach-detach (Cinder)
- volumes-v3-attach-detach (Cinder)

Removed Capabilities

None

Object Component Capabilities

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)

Advisory Capabilities

None

Deprecated Capabilities

None

Removed Capabilities

None

Designated Sections

The following designated sections apply to the same releases as this specification.

Required Designated Sections

- Cinder : Designated sections are the API implementation code
- Glance : Designated sections are the API implementation code and domain model.
- Keystone : Designation is outlined per API grouping. Identity (user and group) management APIs will not be designated. API access (with exception of auth) may be prohibited by policy (resulting in HTTP 403). Designated APIs include v3 version where applicable.
- Neutron : By default, designated for all code backing required capabilities except pluggable components such as plugins, drivers, and API extensions other than those listed below.
- Nova : By default, designated except scheduler, filter, drivers, API extensions and networking. Additional properties allowed on Nova 2.0 API responses.
- Swift : Designated sections are proxy server, object server, container server, account server and select middleware

Advisory Designated Sections

None

Deprecated Designated Sections

- Keystone : Designation is outlined per API grouping.

Removed Designated Sections

None

