



# Octavia

Project Update, OpenStack Summit Vancouver

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# What is Octavia?

Network Load Balancing as a Service for OpenStack.

- Octavia provides scalable, on demand, and self-service access to network load balancer services, in a technology agnostic manner, for OpenStack.
- The reference load balancing driver provides a highly available load balancer that scales with your compute environment.
- Founded during the Juno release of OpenStack.
- 90 contributors from 30 companies for latest release
- Moved from a Neutron sub-project to a top level OpenStack project during the Ocata series.
- #1 Neutron feature “actively using, interested in using, or looking forward to using” for the past two April OpenStack user surveys.



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# OpenStack Queens Features

- Significant improvements to the Octavia dashboard (GUI)
  - Tabbed navigation
  - Ability to make changes to more settings after creation
  - Support for alternate health monitoring ports and addresses
- Batch pool member updates
  - Add/update/delete pool members with one API call
- Neutron QoS support for load balancer VIP
- Simpler TLS offload certificate handling by supporting PKCS12 bundles
- TLS offload support for Castellan in addition to Barbican
- Enhanced filtering when using the Octavia OpenStack client plugin
- Deprecated neutron-lbaas

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# OpenStack Rocky

- Provider driver support, allowing third party drivers to be Octavia v2 API native
- UDP protocol support
- Listener timeouts are now exposed via the API
- Support for “backup” pool members
- New Tempest plugin covering Octavia v2 API and scenarios
- L7 and header insertion support in Octavia dashboard
- Automatic Octavia dashboard status updates
- Neutron-lbaas to Octavia migration tool
- Upgrade testing gate and OpenStack upgrade assertion tag
- Reduced amphora image sizes
- Flavors support
- Active/Active

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## Beyond Rocky

- Active/Active with auto scaling
- Log offloading
- Improved TLS cipher and protocol support
- Backend TLS re-encryption
- Health monitor content checking
- Additional health monitor protocols
- ACL / Firewall group support
- Neutron-Ibaas goes End-of-Life

Note: These are not committed work items and the release timing may vary.

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# Neutron-LBaaS Deprecation Update

- Neutron-lbaas was declared deprecated during the Queens release cycle
  - No new features will be merged, but bug fixes will continue
- We have not announced when the neutron-lbaas deprecation cycle will end, but it will be a minimum of two cycles (a year) from the announcement
- A deprecation FAQ is available on the wiki
  - <https://wiki.openstack.org/wiki/Neutron/LBaaS/Deprecation>
- We have provided a pass-through proxy driver for neutron-lbaas that forwards requests made via the neutron endpoint to the new Octavia endpoint
- You can also use L7 policies to redirect LBaaS requests to the neutron API to the new Octavia v2 API
- Additional testing has been done validating that the Octavia v2 API is a compatible superset of the neutron-lbaas LBaaS v2 implementation

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## Neutron-LBaaS Deprecation Next Steps

- A live migration (pending driver support) tool is under development
- Additional documentation will be available when the migration tool is released
- Once provider driver support is available for the Octavia v2 API and the migration tool is complete, we will start the deprecation cycle clock
- It will be a minimum of two OpenStack release cycles (one year) before neutron-lbaas will go end-of-life
- We are on track to meet these goals during Rocky

## Cross-Project Work

- Still investigating ways to use containers for amphora
- Potential neutron-fwaas integration for a more flexible load balancer port security
- Working with Keystone team on default RBAC roles
- Neutron team discussions about Ryu and OpenFlow controllers



## How to give feedback

Feel free to give feedback during the Q&A at the end of this session

We are available during multiple time zones on freenode IRC in [#openstack-lbaas](#)

Weekly IRC meetings:

Wednesday @ 20:00 UTC in [#openstack-lbaas](#)

We are also on the OpenStack developer mailing list using “[openstack-dev][octavia]” as the subject prefix.

Octavia has been migrated to storyboard for bug/RFE tracking:  
<https://storyboard.openstack.org>

# How to contribute

- We are looking for developers and code reviewers!
- We have work available:
  - Bug fixing
  - OpenFlow development
  - API feature enhancements
  - Tempest tests
- If you are a load balancing vendor, work on creating an Octavia provider driver. There is a driver developer guide and support from the team available.

Come to our project onboarding session today at 3:10 in  
Vancouver Convention Centre West - Level Two - Room 223

# Q&A

Thank you!



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