

# NeutronNorthbound: Boron Release Plan

## Introduction

## Release Deliverables

| Name  | Description  |
|---|--|
| org.opendaylight.neutron.neutron-spi                                    | Internal bundle implementing neutron data objects                        |
| org.opendaylight.neutron.transcriber                                    | Internal bundle implementing copying data from northbound to subscribers |
| org.opendaylight.neutron.northbound-api                                 | Bundle implementing Northbound API                                       |
| org.opendaylight.neutron.model  | Bundle holding the Neutron yang models                                   |
| org.opendaylight.neutron.neutron-logger                                 | Bundle that logs datatree-changes on Neutron yang models                 |
| org.opendaylight.neutron.utils (this name is tentative. TBD)            | Bundle that implementing common utilities                                |
| org.opendaylight.neutron.hostconfig.ovsdb (this name is tentative. TBD) | Bundle implementing hostconfig with ovsdb                                |
| org.opendaylight.neutron.hostconfig.vpp (this name is tentative. TBD)   | Bundle implementing hostconfig with vpp                                  |

Featurewise list:

| Name                                | Description   |
|-------------------------------------|---|
| resource status report              | ODL reports status update of resource to neutron, nteworking-odl                                    |
| QoS API update                      | update yang models for QoS API  |
| TRUNK API                           | TRUNK API(aka vlan-aware-vm api)  |
| yang model: project-id              | add project-id for tenant-id. add compatibility logic for future deprecation of tenant-id.          |
| yang mode update for Neutron change | various minor yang model update to catch up to Neutron change                                       |
| utility libraries for hostconfig    | various helper libraries to support hostconfig that will be utilized by openstack service provider. |

## Release Milestones

- Offset: 1

| Milestone | Offset 1 Date | Deliverables                             |          |   |
|-----------|---------------|--|----------|---|
| M1        | 10/27/2016    | Name                                     | Status   | Description   |
|           |               | Intent to participate                    | Done     | Intent to participate in Boron Simultaneous Release |
|           |               | Project Lead elected and project contact | Done     | Project/Test Lead election                          |
|           |               | documentation/test contact               | Done     | select document/test contact                        |
|           |               | Release Plan                             | Done     | Candidate Release Plan                              |
| M2        | 12/1/2016     | Name                                     | Status   | Description   |
|           |               | Release Plan                             | Done     | Final Release Plan                                  |
|           |               | System Test Waiver                       | on-going |   |

| M3                            | 1/19/2017   | <table><tr><th>Name</th><th>Status</th><th>Description</th></tr><tr><td>Feature Freeze</td><td>Done</td><td></td></tr><tr><td>Candidate Stable Distribution</td><td></td><td></td></tr><tr><td>Extension Distribution</td><td></td><td></td></tr></table>   | Name | Status      | Description                   | Feature Freeze  | Done                          |   | Candidate Stable Distribution |   |  | Extension Distribution |  |  |
|-------------------------------|---|---|------|-------------|-------------------------------|---|-------------------------------|---|-------------------------------|---|--|------------------------|--|--|
| Name                          | Status  | Description   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Feature Freeze                | Done  |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Candidate Stable Distribution |   |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Extension Distribution        |   |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| M4                            | 2/16/2017   | <table><tr><th>Name</th><th>Description</th></tr><tr><td>API Freeze</td><td>Done</td></tr><tr><td>Candidate Stable Distribution</td><td>A running candidate of what is attempting to be the stable distribution to be blessed by the TSC.</td></tr><tr><td>Extension Distribution</td><td>A running candidate of what is attempting to be the extension distribution.</td></tr></table>                           | Name | Description | API Freeze                    | Done  | Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. | Extension Distribution        | A running candidate of what is attempting to be the extension distribution. |  |                        |  |  |
| Name                          | Description   |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| API Freeze                    | Done  |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Extension Distribution        | A running candidate of what is attempting to be the extension distribution.                       |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| M5                            | 3/16/2017   | <table><tr><th>Name</th><th>Description</th></tr><tr><td>Code Freeze</td><td>Done</td></tr><tr><td>Candidate Stable Distribution</td><td>A running candidate of what is attempting to be the stable distribution to be blessed by the TSC.</td></tr><tr><td>Extension Distribution</td><td>A running candidate of what is attempting to be the extension distribution.</td></tr></table>                          | Name | Description | Code Freeze                   | Done  | Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. | Extension Distribution        | A running candidate of what is attempting to be the extension distribution. |  |                        |  |  |
| Name                          | Description   |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Code Freeze                   | Done  |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Extension Distribution        | A running candidate of what is attempting to be the extension distribution.                       |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| RC0                           | 4/13/2017   | <table><tr><th>Name</th><th>Description</th></tr><tr><td>Candidate Stable Distribution</td><td>A running candidate of what is attempting to be the stable distribution to be blessed by the TSC.</td></tr><tr><td>Extension Distribution</td><td>A running candidate of what is attempting to be the extension distribution.</td></tr></table>  | Name | Description | Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. | Extension Distribution        | A running candidate of what is attempting to be the extension distribution.                       |                               |   |  |                        |  |  |
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| Extension Distribution        | A running candidate of what is attempting to be the extension distribution.                       |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| RC1                           | 4/20/2017   | <table><tr><th>Name</th><th>Description</th></tr><tr><td>Candidate Stable Distribution</td><td>A running candidate of what is attempting to be the stable distribution to be blessed by the TSC.</td></tr><tr><td>Extension Distribution</td><td>A running candidate of what is attempting to be the extension distribution.</td></tr></table>  | Name | Description | Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. | Extension Distribution        | A running candidate of what is attempting to be the extension distribution.                       |                               |   |  |                        |  |  |
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| Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Extension Distribution        | A running candidate of what is attempting to be the extension distribution.                       |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| RC2                           | 4/27/2017   | <table><tr><th>Name</th><th>Description</th></tr><tr><td>Release Review</td><td>Release Review Description</td></tr><tr><td>Candidate Stable Distribution</td><td>A running candidate of what is attempting to be the stable distribution to be blessed by the TSC.</td></tr><tr><td>Extension Distribution</td><td>A running candidate of what is attempting to be the extension distribution.</td></tr></table> | Name | Description | Release Review                | Release Review Description  | Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. | Extension Distribution        | A running candidate of what is attempting to be the extension distribution. |  |                        |  |  |
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| Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Extension Distribution        | A running candidate of what is attempting to be the extension distribution.                       |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| RC3                           | 5/4/2017  | <table><tr><th>Name</th><th>Description</th></tr><tr><td>Release Review</td><td>Release Review Description</td></tr><tr><td>Candidate Stable Distribution</td><td>A running candidate of what is attempting to be the stable distribution to be blessed by the TSC.</td></tr><tr><td>Extension Distribution</td><td>A running candidate of what is attempting to be the extension distribution.</td></tr></table> | Name | Description | Release Review                | Release Review Description  | Candidate Stable Distribution | A running candidate of what is attempting to be the stable distribution to be blessed by the TSC. | Extension Distribution        | A running candidate of what is attempting to be the extension distribution. |  |                        |  |  |
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| Extension Distribution        | A running candidate of what is attempting to be the extension distribution.                       |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Formal Release                | 5/11/2016   | <table><tr><th>Name</th><th>Description</th></tr><tr><td>Deliverable Name</td><td>Deliverable Description</td></tr></table>   | Name | Description | Deliverable Name              | Deliverable Description   |                               |   |                               |   |  |                        |  |  |
| Name                          | Description   |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |
| Deliverable Name              | Deliverable Description   |   |      |             |                               |   |                               |   |                               |   |  |                        |  |  |

## Externally Consumable APIs

| Short Name | Description | Type (at M2) | Type (at M3) | Type (release) | Contract | Supporting Code |
|------------|-------------|--------------|--------------|----------------|----------|-----------------|
|------------|-------------|--------------|--------------|----------------|----------|-----------------|

|                                   |   |                                       |             |                       |  |   |
|-----------------------------------|---|---------------------------------------|-------------|-----------------------|--|---|
| TBD                               | Northbound  | Interface to OpenStack networking-odl |             |                       | <a href="#">Openstack Networking Ref v2 Openstack Networking API v2.0 extensions</a> | org.opendaylight.neutron.northbound-api             |
| MD-SAL yang models: To be updated |   |                                       |             |                       |  |   |
| MD-SAL Networks Model             | YANG model for Neutron Networks   | Provisional                           | Provisional | Provisional           | neutron-networks.yang  | org.opendaylight.neutron.model                      |
| MD-SAL Subnet Model               | YANG model for Neutron Subnets  | Provisional                           | Provisional | Provisional           | neutron-subnets.yang   | org.opendaylight.neutron.model                      |
| MD-SAL Ports Model                | YANG model for Neutron Ports  | Provisional                           | Provisional | Provisional           | neutron-ports.yang   | org.opendaylight.neutron.model                      |
| MD-SAL L3 Model                   | YANG model for Neutron Routers and Floating IPs   | Provisional                           | Provisional | Provisional           | neutron-l3.yang  | org.opendaylight.neutron.model                      |
| MD-SAL FWaaS Model                | YANG model for Neutron Firewalls, Firewall Policies, Firewall Rules   | Provisional                           | Provisional | Provisional           | neutron-fwaas.yang   | org.opendaylight.neutron.model                      |
| MD-SAL LBaaS Model                | YANG model for Neutron Load Balancer, Load Balancer Health Monitor, Load Balancer Listener, Load Balancer Pool, and Load Balancer Pool Member | Provisional                           | Provisional | Provisional           | neutron-lbaas.yang   | org.opendaylight.neutron.model                      |
| MD-SAL Metering Model             | YANG model for Neutron Metering Label and Metering Label Rule   | Provisional                           | Provisional | Provisional           | neutron-metering.yang  | org.opendaylight.neutron.model                      |
| MD-SAL Security Group/Rule Model  | YANG model for Neutron Security Group and Security Rule   | Provisional                           | Provisional | Provisional           | neutron-secgroups.yang   | org.opendaylight.neutron.model                      |
| MD-SAL VPNaaS Model               | YANG model for Neutron VPN IKE Policy, VPN IPSEC Policy, VPN IPSEC Site Connection, VPN Service   | Provisional                           | Provisional | Provisional           | neutron-vpnaas.yang  | org.opendaylight.neutron.model                      |
| MD-SAL L2-gateway Model           | YANG model for Neutron L2 Gateway, L2 Gateway Connection  | Provisional                           | Provisional | Provisional           | neutron-l2gateways.yang  | org.opendaylight.neutron.model                      |
| MD-SAL BGPVPN Model               | YANG model for Neutron BGPVPN   | Provisional                           | Provisional | Provisional           | neutron-bgpvpn.yang  | org.opendaylight.neutron.model                      |
| Neutron HostConfig Model          | YANG model for Neutron Hostconfig   | Provisional                           | Provisional | Provisional           | neutron-hostconfig.yang  | org.opendaylight.neutron.model                      |
| Neutron QoS Model                 | YANG model for Neutron QoS API  | Provisional                           | Provisional | Provisional           | neutron-qos.yang   | org.opendaylight.neutron.model                      |
| Neutron SFC Model                 | YANG model for Neutron SFC API (networking-sfc)   | Provisional                           | Provisional | Provisional           | neutron-sfc.yang   | org.opendaylight.neutron.model                      |
| Neutron extension discovery Model | YANG model for Neutron extension discovery  | Provisional                           | Provisional | Provisional           | neutron-extension.yang   | org.opendaylight.neutron.model                      |
| Neutron TRUNK API Model           | YANG model for Neutron TRUNK API  | N/A                                   | N/A         | Provisional (planned) | neutron-trunk.yang (planned)   | org.opendaylight.neutron.model                      |
| Neutron yangmodel update          | various update of neutron yang model  | N/A                                   | N/A         | Provisional (planned) | neutron-*.yang(planned)  | org.opendaylight.neutron.model                      |
| Neutron utils                     | helper functions  | N/A                                   | N/A         | tentative (planned)   |  | org.opendaylight.neutron.utils (planned)            |
| Neutron hostconfig ovsdb          | helper functions for hostconfig with ovsdb  | N/A                                   | N/A         | tentative (planned)   |  | org.opendaylight.neutron.hostconfig.ovsdb (planned) |
| Neutron hostconfig vpp            | helper functions for hostconfig with vpp  | N/A                                   | N/A         | tentative (planned)   |  | org.opendaylight.neutron.hostconfig.vpp (planned)   |

## Expected Dependencies on Other Projects

- Depends on all other projects in Boron

Neutron northbound project depends on the projects, odlparent, controller, md-sal, yangtools. But there is no new dependencies in Carbon.

| Providing Project   | Description                    |
|---------------------|--------------------------------|
| controller          | basic controller features      |
| mdsal               | mdsal features                 |
| odlparent           | odlparent values               |
| yangtools           | yangtools for compiling yang   |
| ovsdb(and netvirt?) | ovsdb network topology         |
| netconf             | odl-netconf-clustered-topology |

## Expected Incompatibilities with Other Projects

new member as project id for tenant id. In Carbon cycle, tenant-id will be kept for compatibility. In Nitrogen cycle or later, project-id may be deprecated.

[https://wiki.opendaylight.org/view/Weather#Neutron\\_Northbound:\\_rename\\_tenant-id\\_to\\_project-id](https://wiki.opendaylight.org/view/Weather#Neutron_Northbound:_rename_tenant-id_to_project-id)

## Top-level or User-facing Karaf Features

- odl-neutron-service (Top Level, User Facing)
  - This feature provides the complete neutron northbound service

## Planned Documentation

- User/Operator Guide for odl-neutron-service feature
- Developer Guides for odl-neutron-service features

## Compatibility with Previous Releases

- None intrinsic to distribution, projects delivered may have their own.

## Themes and Priorities

- carry over from Boron cycles
  - neutron HA support
  - support port binding well(hostconfig)
- status report from ODL to networking-odl
- TRUNK API
- FWaaS v2 API
- QoS API update
- various model update to catch up neutron change

## Requests from Other Projects

The following projects requested dependency on Neutron Northbound

- NetVirt

The followings are copied from Boron cycles.

- GBP
- Netvirt
- VPNService
- VTN

## Test Tools Requirements

- NN will be requesting a System Test exemption
- NN system test cases are already included in the integration/test project tests that run as part of all jenkins jobs.

## Other