

# NetVirt

## Welcome to NetVirt

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## Introduction

NetVirt is a network virtualization solution that includes the following components as well as others: Open vSwitch based virtualization for software switches, Hardware VTEP for hardware switches, Service Function Chaining support within a virtualized environment, support for OVS and DPDK-accelerated OVS data paths, L3VPN (BGPVPN), EVPN, ELAN, distributed L2 and L3, NAT and Floating IPs, IPv6, Security Groups, MAC and IP learning.

Netvirt would provide the following modules --

- **NeutronVPN:**

Creates and maintains the VPN information like VpnInstances, VpnInterfaces, VpnMaps, etc.

- **ElanManager:**

Creates the L2 forwarding rules based on the ELAN-Instance and ELAN-Interface details.

- **VpnManager:**

Creates and maintains the Vpn Operational Information like VpnFootPrint, VpnInstanceOpData, VpnInterfaceOpData, etc.

- **FibManager:**

Creates the L3 Forwarding Information Base (FIB) rules which is understandable by OFPlugin module and write all the populated data into FRM data store (Config-Inventory-DS)

- **BgpManager:**

It is used for communicating between ODL Application to Quagga(Routing Engine) via Thrift Protocol. Also it provides the support for Quagga Advertised routes from DC-GW to ODL FIB Engine.

- **DHCPService:**

It is used for providing DHCPv4 Server functionality as same as Openstack QDHCP Agent service.

- **ACLService:**

It provides the ACL (Access Control List) in both INGRESS and EGRESS mode to VM booted neutron port.

- **NATService:**

It provides the NATing service to openstack tenant VMs in the flavor of SNAT/Floating-IP (DNAT) for Internet Connectivity purpose.

## Documentation

### Getting Started for Users

[Netvirt Overview](#)

[Netvirt User Guide](#)

[App co-existence with Netvirt](#)

## Project Facts

Project Creation Date: [April 7,2016](#)

Lifecycle State: [Incubation](#)

Type: [App](#)

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## Getting Started for Developers

- [Netvirt Design doc](#)
- [NetVirt Pipeline](#)
- [IPv6 Design](#)

Committers typically do not review changes with build failures; it is the Gerrit Owner's responsibility to get them to build. If you're facing build issues you don't know how to solve, email the app-dev list asking for help (don't just wait and expect committers to notice your proposed change and help you fix its build).

Feel free to email the app-dev list after 1 week of no movement on a (green ticked build passing) Gerrit.

## Getting Started for Committers

We do not "self merge" our own changes, but add other committers as reviewers. The first reviewing committer will +1, the second reviewing committer will +2. Any other committers can merge proposed changes with at least x2 +1 from contributors.

The one exception to the rule is that we allow self merging critical changes required to unblock broken builds.

If you've been added as a Reviewer to a change you don't feel comfortable reviewing, or don't anticipate to have the time to review within say 1 week, then you may want to remove yourself from the review, ideally with a short comment, to signal that to the owner, so that he can find others willing to review (or make changes to significantly simplify or further extensively document and re-add), instead of "doing nothing" and letting reviews "linger" for too long with no action.

We aim to [review all pending Gerrits which have passed Verify and have no merge conflicts and no -1/-2 \(and only those\)](#) in the weekly meeting. We ignore pending Gerrits which are not Verify. (Here are [those with -1/-2 reviews](#).)

We occasionally review the list of [all pending very old Gerrits which may be should and can be abandoned](#) (or need to poke people).

## Requirements

[Openstack with ODL](#)

## Release Planning and Release Notes

Release	Planning	Release Plan	Release Notes	Release Review
Hydrogen		<a href="#">Release Plan</a>		<a href="#">Release Review</a>
Helium	<a href="#">Planning</a>	<a href="#">Release Plan</a>	<a href="#">Release Notes</a>	<a href="#">Release Review</a>
Lithium	<a href="#">Planning</a>	<a href="#">Release Plan</a>	<a href="#">Release Notes</a>	<a href="#">Release Review</a>
Beryllium	<a href="#">Planning</a>	<a href="#">Release Plan</a>	<a href="#">Release Notes</a>	<a href="#">Release Review</a>
Boron	<a href="#">Planning</a>	<a href="#">Release Plan</a>	<a href="#">Release Notes</a>	<a href="#">Release Review</a>
Carbon	<a href="#">Planning</a>	<a href="#">Release Plan</a>	<a href="#">Release Notes</a>	<a href="#">Release Review</a>
Nitrogen	<a href="#">Planning</a>	<a href="#">Release Plan</a>	<a href="#">Release Notes</a>	<a href="#">Release Review</a>
Oxygen	<a href="#">Planning</a>	<a href="#">Release Plan</a>	<a href="#">Release Notes</a>	<a href="#">Release Review</a>
Fluorine	TBD	TBD	TBD	<a href="#">Release Review</a>
Neon	TBD	TBD	TBD	<a href="#">Release Review</a>
Sodium	TBD	TBD	<a href="#">Release Notes</a>	<a href="#">Release Review</a>
Magnesium	TBD	TBD	<a href="#">Release Notes</a>	<a href="#">Release Review</a>
Aluminium	TBD	TBD	TBD	TBD (Current Development Release)

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IRC: [freenode.net #opendaylight-ht-netvirt](#)

Mailing List: [app-dev@lists.opendaylight.org](mailto:app-dev@lists.opendaylight.org)

Archives: [mailing list archives](#)

Meetings: See [Community Meetings](#)

Repository:

git clone <https://git.opendaylight.org/gerrit/netvirt>

Jenkins: [netvirt Jenkins Silo](#)

Trello Board: [Genius Trello Board](#)

Open Bugs:

- [Open Bugs](#)
- [Report Bugs](#)

## Miscellaneous

- [NetVirt-Related Presentations](#)
- [Using the VPN Service NetVirt with OpenStack](#)