



SDNVPN Brahmaputra documentation

Release draft (b05bc1b)

OPNFV

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SDNVPN PLATFORM COMPONENTS AND FEATURES

The SDN VPN feature enhances OPNFV's baseline OpenStack deployment with the possibility to configure BGP based VPNs according to the OpenStack Neutron Stadium project BGPVPN. The BGPVPN project consists of an API specification, framework implementation and a number of backend drivers (Bagpipe, OpenContrail, Nuage and OpenDaylight currently). In OPNFV Brahmaputra only the ODL backend is supported.

CONFIGURING SDNVPN FEATURES

Fuel installer configuration

In order to install the BGPVPN feature, the corresponding checkbox in Fuel has to be selected. This will trigger installation of the OpenStack BGPVPN API extension for Neutron (set up for using the ODL driver).

In addition, ODL has to be installed, see the corresponding section in the respective installer documentation on how to install ODL. If the BGPVPN feature is installed, ODL will automatically be installed with VPN Service karaf feature activated.

No post-deploy configuration is necessary. The Fuel BGPVPN plugin and the ODL plugin should set up the cluster ready for BGPVPNs being created. This includes the set-up of internal VxLAN transport tunnels between compute nodes.

No post-configuration activities are required.

SDN VPN CAPABILITIES AND USAGE

The BGPVPN feature enables creation of BGP VPNs according to the OpenStack BGPVPN blueprint at <https://blueprints.launchpad.net/neutron/+spec/neutron-bgp-vpn>. In a nutshell, the blueprint defines a BGPVPN object and a number of ways how to associate it with the existing Neutron object model, including a unique definition of the related semantics. The BGPVPN framework supports a backend driver model with currently available drivers for Bagpipe, OpenContrail, Nuage and OpenDaylight.

Currently, in OPNFV only ODL is supported as a backend for BGPVPN. API calls are mapped onto the ODL VPN Service REST API through the BGPVPN ODL driver and the ODL Neutron Northbound module.

3.1 Feature and API usage guidelines and example

For the details of using OpenStack BGPVPN API, please refer to the documentation at <http://docs.openstack.org/developer/networking-bgpvpn/>.

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