

# Firewall-as-a-Service (FWaaS) v1 scenario

[« \(fwaas-v2-scenario.html\)](#)
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[!\[\]\(666e09182d4cd268646ea700ea60dcdf\_img.jpg\) \(https://bugs.launchpad.net/neutron/+filebug?field.title=Firewall-as-a-Service%20\(FWaaS\)%20v1%20scenario%20in%20Neutron&field.comment=%0A%0A%0AThis%20bug%20tracker%20is%20for%20errors%20with%20the%20documentation%2C%20use%20the%20following%20as%20a%20template%20and%20remove%20or%20add%20fields%20as%20you%20see%20fit.%20Convert%20%5B%20%5D%20into%20%5Bx%5D%20to%20check%20boxes%3A%0A%0A-%20%5B%20%5D%20This%20doc%20is%20inaccurate%20in%20this%20way%3A%20\\_\\_\\_\\_\\_%0A-%20%5B%20%5D%20This%20is%20a%20doc%20addition%20request.%0A-%20%5B%20%5D%20I%20have%20a%20fix%20to%20the%20document%20that%20I%20can%20paste%20below%20including%20example%3A%20input%20and%20output.%0A%0AIf%20you%20have%20a%20troubleshooting%20or%20support%20issue%2C%20use%20the%20following%20resources%3A%0A%0A-%20Ask%20OpenStack%3A%20http%3A%2F%2Fask.openstack.org%0A-%20The%20mailing%20list%3A%20http%3A%2F%2Flists.openstack.org%0A-%20IRC%3A%20'openstack'%20channel%20on%20Freenode%0A%0A-----%0ARelease%3A%202012.0.1.dev11%20on%202018-03-07%2021:05%0ASHA%3A%2043df2709acbdce86686a40b75fd34e96880427d0%0ASource%3A%20https%3A%2F%2Fgit.openstack.org%2Fcg%2Fopenstack%2Fneutron%2Ftree%2Fdoc%2Fsource%2Fadmin%2Ffwaas-v1-scenario.rst%0AURL%3A%20https%3A%2F%2Fdocs.openstack.org%2Fneutron%2Fqueens%2Fadmin%2Ffwaas-v1-scenario.html&field.tags=doc\)](https://bugs.launchpad.net/neutron/+filebug?field.title=Firewall-as-a-Service%20(FWaaS)%20v1%20scenario%20in%20Neutron&field.comment=%0A%0A%0AThis%20bug%20tracker%20is%20for%20errors%20with%20the%20documentation%2C%20use%20the%20following%20as%20a%20template%20and%20remove%20or%20add%20fields%20as%20you%20see%20fit.%20Convert%20%5B%20%5D%20into%20%5Bx%5D%20to%20check%20boxes%3A%0A%0A-%20%5B%20%5D%20This%20doc%20is%20inaccurate%20in%20this%20way%3A%20_____%0A-%20%5B%20%5D%20This%20is%20a%20doc%20addition%20request.%0A-%20%5B%20%5D%20I%20have%20a%20fix%20to%20the%20document%20that%20I%20can%20paste%20below%20including%20example%3A%20input%20and%20output.%0A%0AIf%20you%20have%20a%20troubleshooting%20or%20support%20issue%2C%20use%20the%20following%20resources%3A%0A%0A-%20Ask%20OpenStack%3A%20http%3A%2F%2Fask.openstack.org%0A-%20The%20mailing%20list%3A%20http%3A%2F%2Flists.openstack.org%0A-%20IRC%3A%20'openstack'%20channel%20on%20Freenode%0A%0A-----%0ARelease%3A%202012.0.1.dev11%20on%202018-03-07%2021:05%0ASHA%3A%2043df2709acbdce86686a40b75fd34e96880427d0%0ASource%3A%20https%3A%2F%2Fgit.openstack.org%2Fcg%2Fopenstack%2Fneutron%2Ftree%2Fdoc%2Fsource%2Fadmin%2Ffwaas-v1-scenario.rst%0AURL%3A%20https%3A%2F%2Fdocs.openstack.org%2Fneutron%2Fqueens%2Fadmin%2Ffwaas-v1-scenario.html&field.tags=doc)

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## Enable FWaaS v1

FWaaS management options are also available in the Dashboard.

1. Enable the FWaaS plug-in in the `/etc/neutron/neutron.conf` file:

```
service_plugins = firewall

[service_providers]
# ...
service_provider = FIREWALL:Iptables:neutron.agent.linux.iptables_firewall.OVSHybridIptablesFirewallDriver:default

[fwaas]
driver = neutron_fwaas.services.firewall.drivers.linux.iptables_fwaas.IptablesFwaasDriver
enabled = True
```

### Note

On Ubuntu, modify the `[fwaas]` section in the `/etc/neutron/fwaas_driver.ini` file instead of `/etc/neutron/neutron.conf`.

2. Configure the FWaaS plugin for the L3 agent.

In the **AGENT** section of `l3_agent.ini`, make sure the FWaaS extension is loaded:

```
[AGENT]
extensions = fwaas
```

Edit the FWaaS section in the `/etc/neutron/neutron.conf` file to indicate the agent version and driver:

```
[fwaas]
agent_version = v1
driver = iptables
enabled = True
conntrack_driver = conntrack
```

3. Create the required tables in the database:

```
# neutron-db-manage --subproject neutron-fwaas upgrade head
```

4. Enable the option in the `local_settings.py` file, which is typically located on the controller node:

```
OPENSTACK_NEUTRON_NETWORK = {
    # ...
    'enable_firewall' = True,
    # ...
}
```

### Note

By default, `enable_firewall` option value is `True` in `local_settings.py` file.

Apply the settings by restarting the web server.

5. Restart the `neutron-l3-agent` and `neutron-server` services to apply the settings.

# Configure Firewall-as-a-Service v1

Create the firewall rules and create a policy that contains them. Then, create a firewall that applies the policy.

## 1. Create a firewall rule:

```
$ neutron firewall-rule-create --protocol {tcp,udp,icmp,any} \
  --source-ip-address SOURCE_IP_ADDRESS \
  --destination-ip-address DESTINATION_IP_ADDRESS \
  --source-port SOURCE_PORT_RANGE --destination-port DEST_PORT_RANGE \
  --action {allow,deny,reject}
```

The Networking client requires a protocol value. If the rule is protocol agnostic, you can use the **any** value.

### Note

When the source or destination IP address are not of the same IP version (for example, IPv6), the command returns an error.

## 2. Create a firewall policy:

```
$ neutron firewall-policy-create --firewall-rules \
  "FIREWALL_RULE_IDS_OR_NAMES" myfirewallpolicy
```

Separate firewall rule IDs or names with spaces. The order in which you specify the rules is important.

You can create a firewall policy without any rules and add rules later, as follows:

- To add multiple rules, use the update operation.
- To add a single rule, use the insert-rule operation.

For more details, see [Networking command-line client \(https://docs.openstack.org/cli-reference/neutron.html\)](https://docs.openstack.org/cli-reference/neutron.html) in the OpenStack Command-Line Interface Reference.

### Note

FWaaS always adds a default **deny all** rule at the lowest precedence of each policy. Consequently, a firewall policy with no rules blocks all traffic by default.

## 3. Create a firewall:

```
$ neutron firewall-create FIREWALL_POLICY_UUID
```

### Note

The firewall remains in PENDING\_CREATE state until you create a Networking router and attach an interface to it.


« (fwaas-v2-scenario.html) » (misc-libvirt.html)  (https://bugs.launchpad.net/neutron/+filebug?field.title=Firewall-as-a-Service%20(FWaaS)%20v1%20scenario%20in%20Neutron&field.comment=%0A%0A%0AThis bug tracker is for errors with the documentation, use the following as a template and remove or add fields as you see fit. Convert [ ] into [x] to check boxes:%0A%0A- [ ] This doc is inaccurate in this way: \_\_\_\_%0A- [ ] This is a doc addition request:%0A- [ ] I have a fix to the document that I can paste below including example: input and output. %0A%0AIf you have a troubleshooting or support issue, use the following resources:%0A%0A - Ask OpenStack: http://ask.openstack.org%0A - The mailing list: http://lists.openstack.org%0A - IRC: 'openstack' channel on Freenode%0A%0A-----%0ARElease:%2012.0.1.dev11%20on%202018-03-07%2021:05%0ASHA:%2043df2709acbdce86686a40b75fd34e96880427d0%0ASource:%20https://git.openstack.org/cgit/openstack/neutron/tree/doc/source/admin/fwaas-v1-scenario.rst%0AURL: https://docs.openstack.org/neutron/queens/admin/fwaas-v1-scenario.html&field.tags=doc)

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## Neutron 12.0.1

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