

## Mirantis Technical Bulletin 2019-007

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# DVR edge router: accidental centralized floating IP removal

## ISSUE

When a DVR router with centralized floating IPs is being rescheduled from a failed L3 agent to a running L3 agent, the centralized floating IP is deleted from the gateway device. For more details, see the corresponding [Launchpad bug](#).

## AFFECTS

Any OpenStack environment deployed with the `python-neutron` package prior to `2:11.0.6-2~u16.04+mcp190` for Pike and `2:12.0.5-5~u16.04+mcp147` for Queens.

## SECURITY IMPACT

None

## ESTIMATED TIME REQUIRED TO APPLY THE FIX

The calculations are based on the size of the default MCP lab and do not take into account the time for preparation steps. The time spent applying the update:

1. Copying files to nodes and installing the software - 15 minutes (depending on the size of the environment and the `-b 1` parameters used while installing the packages).
2. Restarting the services after update - 3 minutes per node.
3. Verifying the update - 30 minutes.

## HOW TO DETERMINE IF YOU ARE AFFECTED

1. Log in to the Salt Master node and start the screen session:

```
screen
```

2. For the nodes where the `python-neutron` package is installed, verify the version of the package:

```
sudo salt -C 'I@neutron:*' pkg.version python-neutron
```

If the version of the package is below `2:11.0.6-2~u16.04+mcp190` for Pike and `2:12.0.5-5~u16.04+mcp147` for Queens, the cluster is affected.

## STEPS TO CORRECT

The fix is applicable only to the clusters that are running on the Neutron OVS networking. Perform the steps from the procedure on the Salt Master node unless another node is explicitly specified.

1. Log in to the Salt Master node and start the screen session:

```
screen
```

2. Download the `32058-neutron-floating-ip-removal.tar.gz` archive from [Artifactory](#):

```
wget  
https://artifactory.mirantis.com/artifactory/fixes/32058-neutron-floating-ip-removal.tar.gz
```

3. Unpack the archive:

```
tar -xvzf 32058-neutron-floating-ip-removal.tar.gz  
  
cd 32058-neutron-floating-ip-removal
```

4. Copy the required Neutron `.deb` packages to the target nodes. The packages are located in the `pike` or `queens` directory inside the archive with the fix. For example:

**CAUTION:** When using the `scp` command, verify that the destination folder has correct permissions for the SSH user.

```
cd pike OR cd queens  
  
sudo salt -C "I@neutron:*" cmd.run "mkdir -p /tmp/neutron_pkgs/"  
  
sudo salt -C "I@neutron:*" cmd.run "chown <your_ssh_user>  
/tmp/neutron_pkgs/"
```

```
for i in $(sudo salt -C "I@neutron:*" test.ping --out=txt|cut -d':' -f1); do for n in $(sudo salt $i pkg.list_pkgs --out=yaml|grep "^\s\sneutron\|python-neutron:"|grep -v neutron-plugin:|cut -d':' -f1|awk '{print $1}'); do scp -o "StrictHostKeyChecking no" $n* $i:/tmp/neutron_pkgs/; done; done
```

5. Verify that the required Neutron `.deb` packages exist on the target nodes:

```
sudo salt -C "I@neutron:*" cmd.run "ls -l /tmp/neutron_pkgs/"
```

6. Create a backup list of the installed Neutron packages:

```
for i in $(sudo salt -C "I@neutron:*" test.ping --out=txt|cut -d':' -f1); do sudo salt $i cmd.run "dpkg -l | grep neutron | awk '{print \$2\"-\"\\$3}'"; done >> /tmp/old_packages.txt
```

7. Update the Neutron packages:

```
sudo salt -C 'I@neutron:*' -b 1 cmd.run "dpkg -i --force-conffold /tmp/neutron_pkgs/*.deb"
```

8. Restart the following services:

```
sudo salt -I 'neutron:server' -b 1 --batch-wait 120 service.restart neutron-server

sudo salt -C 'I@neutron:gateway or I@neutron:compute' -b 1 --batch-wait 120 service.restart neutron-openvswitch-agent
```

9. Verify that the fix has been applied:

```
for i in $(sudo salt -C "I@neutron:*" test.ping --out=txt|cut -d':' -f1); do echo "$i:"; sudo salt $i pkg.list_pkgs --out=yaml|grep "^\s\sneutron\|python-neutron:"|grep -v neutron-plugin:; done
```

The packages versions should match or be higher than the versions of the packages located in the archive.

#### **Pike packages in the archive:**

- neutron-common\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-metadata-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-plugin-openvswitch-agent\_11.0.6-2~u16.04+mcp201\_all.deb

- neutron-dhcp-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-metering-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-plugin-sriov-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-l3-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-openvswitch-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-server\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-linuxbridge-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-plugin-linuxbridge-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-sriov-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-macvtap-agent\_11.0.6-2~u16.04+mcp201\_all.deb
- neutron-plugin-ml2\_11.0.6-2~u16.04+mcp201\_all.deb
- python-neutron\_11.0.6-2~u16.04+mcp201\_all.deb

#### Queens packages in the archive:

- neutron-common\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-metadata-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-plugin-openvswitch-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-dhcp-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-metering-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-plugin-sriov-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-l3-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-openvswitch-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-server\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-linuxbridge-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-plugin-linuxbridge-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-sriov-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-macvtap-agent\_12.0.5-5~u16.04+mcp155\_all.deb
- neutron-plugin-ml2\_12.0.5-5~u16.04+mcp155\_all.deb
- python-neutron\_12.0.5-5~u16.04+mcp155\_all.deb

## STEPS TO VERIFY THE PATCH

1. Log in to the Salt Master node and start the screen session:

```
screen
```

2. Verify that all Neutron services and agents are running:

```
sudo salt -C "I@neutron:*" cmd.run "systemctl |grep neutron| grep -v neutron-ovs-cleanup.service"
```

3. Verify the Neutron agents status:

```
sudo salt "ctl01*" cmd.run ". ./keystonercv3; neutron agent-list"
```

4. Create a network.
5. Create a subnet.
6. Boot a test instance on the network and attach a floating IP.
7. Create a security rule and verify that it gets applied.
8. Create a router and verify that it works.

## STEPS TO REVERT THE PATCH

To revert the patch, downgrade the Neutron packages on each target node one by one:

1. Log in to the target node.
2. Verify that the candidate version of the `python-neutron` package matches the version that was written down during the [Steps to correct > Step 6](#):

```
apt-cache policy python-neutron
```

Example of system response:

```
python-neutron:  
  Installed: 2:12.0.5-5~u16.04+mcp155  
  Candidate: 2:12.0.5-5~u16.04+mcp62
```

3. Downgrade the `python-neutron` package:

**CAUTION:** Thoroughly review the list of suggested packages for installation and verify that they match the ones that were written down during the [Steps to correct > Step 6](#).

```
apt-get install -o Dpkg::Options::="--force-confold"  
python-neutron=<required_version_of_the_package>
```

Example of system response:

```
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following additional packages will be installed:  
  neutron-common neutron-dhcp-agent neutron-l3-agent  
  neutron-metadata-agent neutron-openvswitch-agent  
The following packages will be DOWNGRADED:  
  neutron-common neutron-dhcp-agent neutron-l3-agent  
  neutron-metadata-agent neutron-openvswitch-agent python-neutron
```

```
0 upgraded, 0 newly installed, 6 downgraded, 0 to remove and 11 not
upgraded.
Need to get 0 B/1,709 kB of archives.
After this operation, 80.9 kB disk space will be freed.
Do you want to continue? [Y/n] y
```

4. Verify that the versions of the Neutron packages match the versions that were written down during the [Steps to correct > Step 6](#):

```
dpkg -l | grep neutron
```

5. Perform the steps 1-4 on the remaining target nodes one by one.
6. Restart the following services:

```
sudo salt -I 'neutron:server' -b 1 --batch-wait 120 service.restart
neutron-server

sudo salt -C 'I@neutron:gateway or I@neutron:compute' -b 1 --batch-wait
120 service.restart neutron-openvswitch-agent
```

7. Perform the [Steps to verify the patch](#).

## REFERENCES

[0] <https://bugs.launchpad.net/neutron/+bug/1817306>

[1] <https://artifactory.mirantis.com/artifactory/fixes/32058-neutron-floating-ip-removal.tar.gz>

[2] <https://review.opendev.org/#/c/640676>