

Leveraging Your OpenStack Troubleshooting Toolbox

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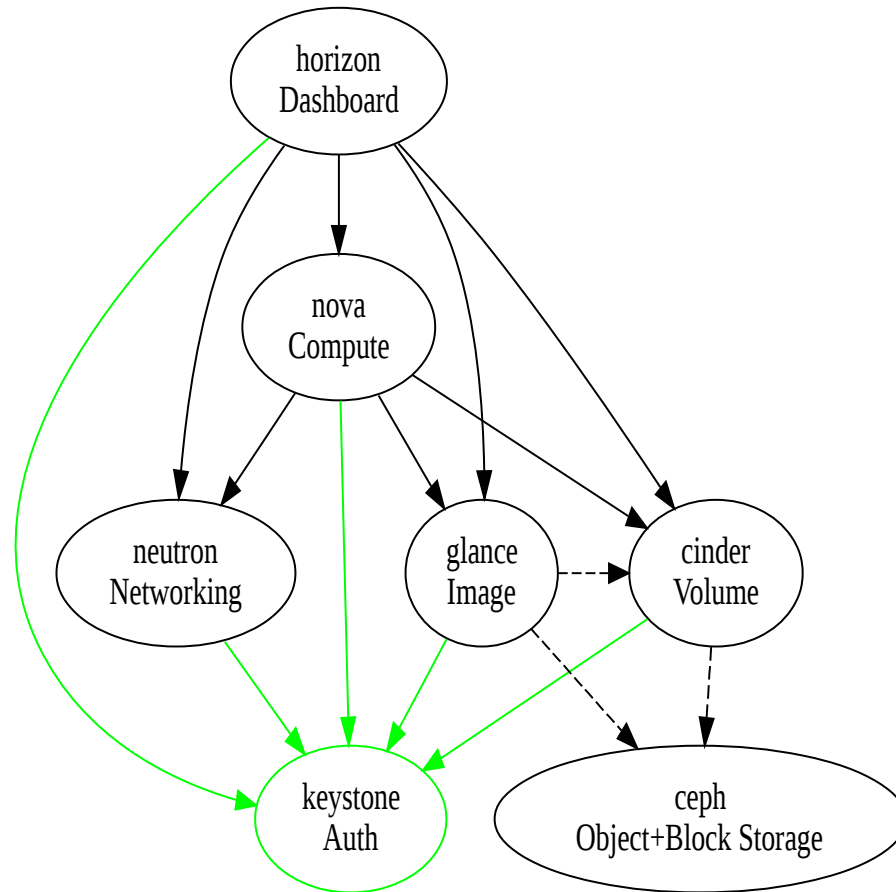


Agenda

- Understanding OpenStack
- Enabling debug
- Using standard Linux tools
- Examining databases
- Navigating logfiles
- Discussing further steps

Understanding OpenStack

Service Dependencies



Using Debug

Server side Debug log

/etc/keystone/keystone.conf:

```
[DEFAULT]
```

```
debug = true
```

```
verbose = true
```

Client side Debug log

```
nova --debug show $ID
```

```
openstack --debug user show admin
```

Using standard Linux tools

Network Debugging

```
# ping -n -M do -s 1600 $IP
```

```
# traceroute $IP
```

```
# mtr $IP
```

```
> curl -v https://$IP:5000/
```

```
> netcat -z $IP 5000 && echo open
```

Network Debugging #2

```
# tcpdump -epni eth0 port 5000
```

```
# tcpdump -s 0 -w dump.pcap -pi  
eth0 port ! 22
```

ip netns

```
# ip netns list
```

```
snat-83507d7d-9da9-41d2-b17b-ff1e349ac16b  
snat-41f2b42d-d365-4ad2-8007-3e116b711e56  
qrouter-ecae5b82-b241-40ae-b924-b8e7b82e6aa6  
qdhcp-64de8180-d94c-4960-b498-e10d361b42ed  
qdhcp-79a51605-d461-4340-a5c8-bda69fcd29ee  
qrouter-41f2b42d-d365-4ad2-8007-3e116b711e56
```

```
# ip netns exec qrouter-41f2b42d... ip r  
10.0.0.0/24 dev qr-39c229b4-fc proto kernel  
scope link src 10.0.0.1
```

openvswitch

```
# ovs-vsctl show
```

```
# ovs-ofctl show br-fixed
```

```
# ovs-ofctl dump-flows br-fixed
```

On Compute Node

```
# virsh list
```

```
# virsh dumpxml $ID
```


Tracing

> strace -T sleep 2

> strace -e open ls

**> strace -e network netcat
localhost 80**

**# strace -p \$(pidofproc neutron-
server | cut -f1 -d" ")**

> ltrace echo hello

Examining databases

Mysql / MariaDB

~/.my.cnf :

[client]

user = cinder

password = YOUR_PASSWORD

host = 192.168.81.29

> mysql cinder

MariaDB [cinder]> **show tables;**

MariaDB [cinder]> **describe volumes;**

MariaDB query

```
MariaDB [cinder]> SELECT updated_at,id FROM volumes WHERE  
status='available';
```

```
+-----+-----+  
| updated_at          | id                                |  
+-----+-----+  
| 2018-01-29 09:43:10 | 02f5dcc6-1d5e-450f-22c7e622f158 |  
| 2017-12-01 15:02:31 | 065a1f4d-dd58-4a9d-2f8bdcc7818d |  
+-----+-----+  
2 rows in set (0.00 sec)
```

Postgresql

```
# su - postgres -c 'psql -d cinder'
```

```
cinder=# \d
```

```
cinder=# \d volumes
```

```
# echo "SELECT updated_at,id FROM  
volumes WHERE status='available';"  
| su - postgres -c 'psql -d cinder'
```


Navigating logfiles

/var/log

```
# cd /var/log ; ls */*.log
```

```
# tail -f */*.log | grep ERROR
```

```
# zgrep ERROR */*.log{,-  
20180228{,.xz}}
```

Questions?

Discussing further steps

Questions?

Thank you.







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