

OpenStack: Enable live migration in Bright OpenStack

Requirements :

Bright OpenStack 8.0/7.3 Installed.

OpenStack Installed and working.

Shared storage (as we will not be migrating block devices)

Hypervisors of the same hardware and cpu type, in theory, if you configured your hypervisors cpu model in nova.conf and manipulated your supported CPUflags for libvirtd, Live migration should work on non-homogeneous hardware.

For the purpose of this document we are going to assume that you either have a homogeneous hardware or at least a homogeneous aggregate of hosts in which your virtual machines run on.

Configuration and setup:

Configure libvirtd on your software image to allow tcp listening

Match the following parameters in /cm/images/<image>/etc/libvirt/libvirtd.conf

```
listen_tls = 0
listen_tcp =
tcp_port = "16509"
```

Match the following parameters in /cm/image /cm/images/<image>/etc/etc/sysconfig/libvirtd

```
LIBVIRT_ARGS="--listen"
```

Configure nova live_migration_uri :

On the headnode :

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```
cmsh
configurationoverlay
use openstackcontrollers
customizations
add /etc/nova/nova.conf
entries
add DEFAULT live_migration_uri "qemu+ssh://%s/system"
```

Push the changes made from the software image to your hypervisors :

```
device
imageupdate -n <node-list>
```

Finally restart libvirtd on all your hypervisors nodes :

```
device
foreach -n <node-list> ( services ; restart libvirtd ; restart openstack-nova-compute )
```

Check libvirtd is listening on correct TCP port:

Ssh into one of your hypervisors and confirm that libvirtd is listening on port 16509 :

```
# netstat -apnt | grep libvirtd
tcp        0      0 0.0.0.0:16509          0.0.0.0:*             LISTEN
STEN      7318/libvirtd
tcp6      0      0 :::16509              :::*                   LISTEN
STEN      7318/libvirtd
```

Perform a live migration

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To perform live migration on your machine, from your headnode as an admin user :

```
nova live-migration <server-id> <hypervisor hostname>
```

For example :

```
nova live-migration 9b182365-fe04-4ce5-bd21-a5210c8f1dc3 node006
```

Check your server and in a while you should see your VM in a new host :

```
openstack server show d5783cc5-943b-4aea-8b06-79c8c2f2ab02 | grep host  
| OS-EXT-SRV-ATTR:host | node006
```

Unique solution ID: #1384

Author: ahmed

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