

Manage Virtual Machines with Network Function Virtualization Infrastructure Software (NFVIS) CLI

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Introduction

This document describes how to do basic Virtual Machine (VM) management in Network Function Virtualization Infrastructure Software (NFVIS) via command line interface (CLI).

Background Information

NFVIS is a part of Enterprise Network Function Virtualization (ENFV). NFVIS is the software platform that implements full life cycle management from the central orchestrator and controller (APIC-EM and ESA) for virtualized services. NFVIS enables the connectivity between virtual services and external interfaces as well as supporting the underlying hardware.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- ENFV
- NFVIS

Components Used

The information in this document is based on these software:

- Enterprise NFV Infrastructure Software version 3.5.1

The information in this document was created from the devices in a specific lab environment. All of

the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Problem

The command **show system deployments deployment** shows the list of VMs and their status.

```
bdsol-encs-01# show system deployments deployment
NAME                ID  STATE
-----
1494763184.ISRv     2   running
1495371059.Linux   -   shut
```

The problem is that names under column **NAME** are not the full names for VMs. For VM management you need to find the full name to perform actions with it.

Find Virtual Machines Full Name

In order to find the full name of VM you need to run the command **show vm_lifecycle opdata tenants tenant**. You will see VM name in a line that begins with **name**, as well as in **VM NAME** column.

Tip: If you look for VMs in specific tenant, you can add the tenant name to the end of command.

```
bdsol-encs-01# show vm_lifecycle opdata tenants tenant
vm_lifecycle opdata tenants tenant admin
tenant_id AdminTenantId
networks network int-mgmt-net
netid                085d726e-3193-469b-b9f8-7415e3e8b880
shared               true
admin_state          true
provider_network_type local
status               active
subnets subnet int-mgmt-net-subnet
subnetid             c56aa2e2-fd96-4e25-8744-0684acc2b14f
cidr                 10.20.0.0/24
gateway              10.20.0.1
no_gateway           false
dhcp                 false
ipversion            4
deployments 1494763184 - -
deployment_id SystemAdminTenantId1494763184
vm_group ISRv
vm_instance ae521a5b-f173-4b22-9b05-2130b346fbe3
name       SystemAdminTena_ISRv_0_1989b9c8-311a-43d6-94e1-385752a3cc44
host_id     NFVIS
hostname    bdsol-encs-01
interfaces interface 0
model       virtio
port_id     vnic0
network     int-mgmt-net
subnet      N/A
ip_address  10.20.0.2
mac_address 52:54:00:60:44:a6
netmask     255.255.255.0
gateway     10.20.0.1
```

```

interfaces interface 1
  model      virtio
  port_id    vnic1
  network    N/A
  subnet     N/A
  ip_address 127.0.0.1
  mac_address 52:54:00:0b:b9:95
interfaces interface 2
  model      virtio
  port_id    vnic2
  network    N/A
  subnet     N/A
  ip_address 127.0.0.1
  mac_address 52:54:00:ab:32:cd
state_machine state SERVICE_ACTIVE_STATE
VM NAME STATE
-----
SystemAdminTena_ISRv_0_1989b9c8-311a-43d6-94e1-385752a3cc44 VM_ALIVE_STATE

deployments 1495371059 - -
deployment_id SystemAdminTenantId1495371059
vm_group Linux
vm_instance 82030189-61d2-4675-9ea5-2f2c9a0514c6
  name      SystemAdminTena_Linux_0_58b32552-37ba-4759-8c25-28065fc6158d
  host_id    NFVIS
  hostname   bdsol-encs-01
  interfaces interface 0
    model     virtio
    port_id   vnic3
    network   lan-net
    subnet    N/A
  state_machine state SERVICE_INERT_STATE
VM NAME STATE
-----
SystemAdminTena_Linux_0_58b32552-37ba-4759-8c25-28065fc6158d VM_SHUTOFF_STATE

```

Manage Virtual Machines

To manage a VM you can use **vmAction** command, followed by **actionType** and **vmName**.

```
bdsol-encs-01# vmAction
```

Possible completions:

```
actionType vmName
```

Type in **vmAction actionType** command to get the list of possible actions.

```
bdsol-encs-01# vmAction actionType
```

Possible completions: **DISABLE_MONITOR ENABLE_MONITOR REBOOT START STOP**

For example, to start a VM named **SystemAdminTena_Linux_0_58b32552-37ba-4759-8c25-28065fc6158d** use this command.

```
bdsol-encs-01# vmAction actionType START vmName SystemAdminTena_Linux_0_58b32552-37ba-4759-8c25-28065fc6158d
```

Verify

You have these options to verify VM status:

- Use NFVIS CLI command **show system deployments deployment**

- Use NFVIS CLI command **show vm_lifecycle opdata tenants tenant**
- In GUI navigate to **VM Life Cycle -> Manage**, and see the status of VM
- Latest log events in log file **/var/log/messages**

An example of event generated in log file **/var/log/messages**:

```
bdsol-encs-01# vmAction actionType START vmName SystemAdminTena_Linux_0_58b32552-37ba-4759-8c25-28065fc6158d
```