

# 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
```