

Instantiate OpenStack VNF Using VNF-LCM

Call Session Control Function

OPERATING INSTRUCTIONS

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Contents

1	Description	1
2	Procedure	3
2.1	Instantiate a VNF	3
2.2	Troubleshooting	9



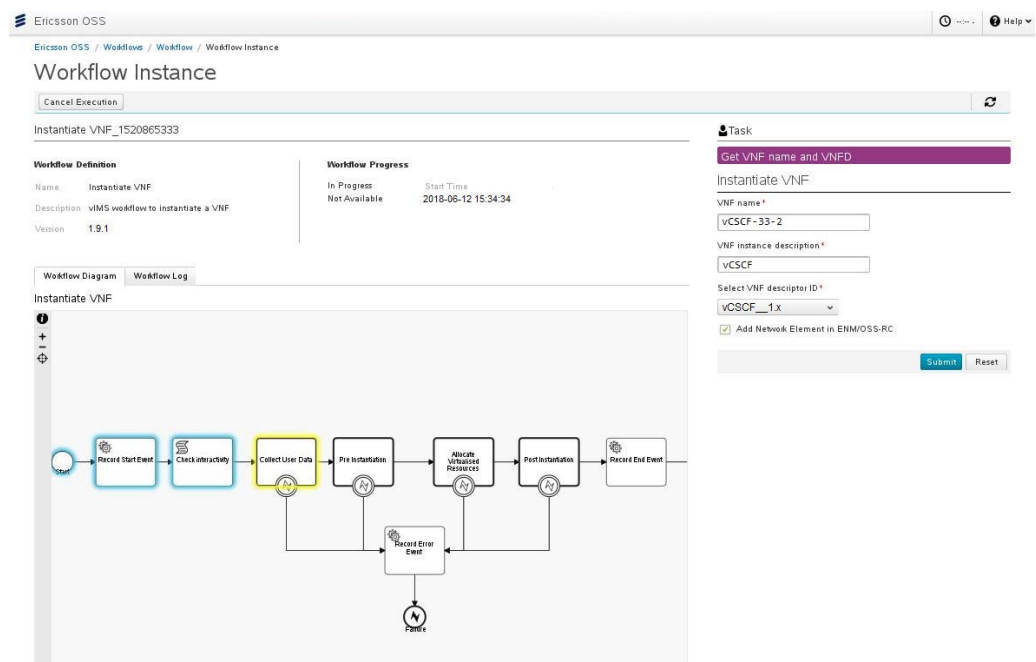


1

Description

This instruction describes how to instantiate a Virtual Network Function (VNF) in the VNF Lifecycle Management (VNF-LCM).

The VNF-LCM procedures use workflow instances. The following figure shows an example of a workflow instance, where workflow progress can be tracked in the **Workflow Diagram** view. The boxes in the **Workflow Diagram** only represent the stages of the various procedures; operations are performed in the **Task** view.







2 Procedure

2.1 Instantiate a VNF

Prerequisites

- The following virtual and physical hardware and software are required:
 - VNF-LCM is available using either Operations Support System for Radio and Core (OSS-RC) or Ericsson Network Manager (ENM).
 - One of the following Virtual Infrastructure Managers (VIMs) is used:
 - OpenStack Mitaka or newer
 - CEE R6 or newer
 - The VIM is configured in VNF-LCM:

The VIM configuration in VNF-LCM can be checked with the `vnflcm vim list` command. For more information on VIM configuration, see VNF Lifecycle Manager System Administrator Guide, 1543-APR 901 0578.
 - The version of the used VNF-LCM is 18.10. The VNF Lifecycle Automation Framework (VNF-LAF) image is 4.3.13 or higher.
- No documents are required.
- No tools are required.
- The following condition must apply:
 - The VNF-LCM is available using either the Operations Support System for Radio and Core (OSS-RC) or the Ericsson Network Manager (ENM).
 - The Call Session Control Function (CSCF) workflow software package contains more files than are described in this instruction. These unmentioned files are only used in special deployment scenarios that are outside the scope of this instruction. Only use the files that are explicitly mentioned in the instruction.



Attention!

Risk of system malfunction or traffic disturbance.



Do not execute a workflow instance on a VNF while another is in progress, as it can lead to unexpected behavior. If a new workflow procedure is needed, terminate the ongoing procedure before starting a new.

Steps

1. In the VNF-LCM **Workflows** screen, select **Instantiate VNF**, and then click **Start a New Instance**.

Ericsson OSS / Workflows

VNF LifeCycle Management

Workflows 5 ⚙️ Table Settings

Name	Instances with User Tasks	Active Instances	Description
Heal VNF			vIMS workflow to heal a VNF instance
Instantiate VNF			vIMS workflow to instantiate a VNF
NR-Upgrade VNF			vIMS workflow to upgrade a VNF with a redundant network
Scale VNF			vIMS workflow to scale a VNF instance
Terminate VNF			vIMS workflow to terminate a VNF instance

2. In the **Start a Workflow** view, fill out the **Instance Name** field, and then click **Submit**.
3. Select the newly created workflow from the **Instance Activity** panel.
4. In the **Workflow Instance** view:
 - a. Add **VNF name**.
 - b. Add **VNF instance description**.
 - c. Select the VNF to instantiate.
 - d. (Optional) Select the **Add Network Element in ENM/OSS-RC** check box to add the new VNF in the Network Management application.
 - e. Click **Submit**.



Task

Get VNF name and VNFD

Instantiate VNF

VNF name*

VNF instance description*

Select VNF descriptor ID*

☐ Add Network Element in ENM/OSS-RC

Note: The **VNF Name** is also used as the Heat stack name. It is not recommended to add version information in this field.

The **Select VNF descriptor Id** drop-down list shows VNF releases available for VNF instantiation in the /vnflcm-ext/backups/workflows/vnfd/ directory.

5. In the **Select VIM** view, select the VIM to be used, and then click **Submit**.


Task

Select VIM

Select VIM:

6. In the **Select Tenant** view, select the tenant to be used, and then click **Submit**.



 Task

Select Tenant

Select Tenant


admin ▼

Submit

Reset

The following step is optional. If none of these parameters are needed, leave the fields blank.

7. In the **Zone And Regional Details** view, set the zone and region details, and then click **Submit**.

 Task

Provide Zone & Region Info

Zone And Region Details

cloud region id.

cloud zone id.

cloud vim zone name.

cloud vim zone info id.

Submit

Reset

8. In the **Get Instance Configuration** view, select a VNF configuration to instantiate, and then click **Submit**.



Task

Get Instance Configuration Data

Get instance configuration

Select configuration for the VNF instance *

vCSCF-CBA-104



Submit

Reset

Note: The **Select Configuration for the VNF instance** field displays VNF configurations available for instantiation in the `/vnflcmext/backup s/workflows/vnfd/<VNFType>_<VNFVersion>/configurations` folder.

The following step is optional. It is only required if the **Add Network Element in ENM/OSS-RC** check box was selected in Step 4.

9. Set the VNF-related parameters for ENM and then click **Submit**.

Note: To check the supported VNF version in ENM and OSS-RC, refer to ENM and OSS-RC documentation respectively.



Task

Get OSS/ ENM parameters

Enter the parameters required by OSS/ENM

VNF username *

VNF password *

Network element type in OSS/ENM *

Network element version supported by OSS/ENM *

Node IP address *

SNMP port used *

Netconf port used *

The Src type of network element *

The associated site. *



The VNF is instantiated, it starts handling traffic after all configuration data is provided.

2.2 Troubleshooting

If the workflow execution fails, inspect the relevant logs to identify the cause of the failure.

Steps

1. Increase the log level from INFO to DEBUG. For information on how to change log level, see VNF Lifecycle Manager System Administrator Guide, 1543-APR 901 0578.
2. Inspect the following logs to identify the cause of the failure:
 - Jboss Server log: `/ericsson/3pp/jboss/standalone/log/server.log`
 - System log: `/var/log/messages`
 - Workflow log: the **Workflow Log** view in the VNF-LCM
3. If the **Workflow Log** view reports `Authentication failed`, repair the Secure Shell (SSH) key between the VNF-LCM and the CSCF. See Section [Check SSH Key for Authentication in CSCF Troubleshooting Guideline](#).
4. If a problem cannot be solved, consult the next level of maintenance support and provide the logs. Further actions are outside the scope of this instruction.