



# **HPE NFV Director**

Operations API Guide

Release 4.2

Edition 1

# Notices

---

## Legal notice

© Copyright 2017 Hewlett Packard Enterprise Development LP

Confidential computer software. Valid license from HPE required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

The information contained herein is subject to change without notice. The only warranties for HPE products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HPE shall not be liable for technical or editorial errors or omissions contained herein.

Printed in the US

## Trademarks

Linux is the registered trademark of Linus Torvalds in the U.S. and other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

Adobe®, Acrobat® and PostScript® are trademarks of Adobe Systems Incorporated.

Microsoft®, Internet Explorer, Windows®, Windows Server 2007®, Windows XP®, and Windows 7® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Firefox® is a registered trademark of the Mozilla Foundation.

Google Chrome® is a trademark of Google Inc.

EnterpriseDB® is a registered trademark of EnterpriseDB.

Postgres Plus® Advanced Server is a registered U.S. trademark of EnterpriseDB.

UNIX® is a registered trademark of The Open Group.

X/Open® is a registered trademark, and the X device is a trademark of X/Open Company Ltd. in the UK and other countries.

Red Hat® is a registered trademark of the Red Hat Company.

Apache CouchDB, CouchDB, and the project logo are trademarks of The Apache Software Foundation.

Node.js project. Joyent® and Joyent's logo are registered trademarks of Joyent, Inc.

Neo4j is a trademark of Neo Technology.

VMware ESX, VMWare ESXi, VMWare vCenter and VMWare vSphere are either registered trademarks or trademarks of VMware, Inc. in the United States and other jurisdictions

# Contents

<b>Notices .....</b>	<b>1</b>
<b>Preface.....</b>	<b>16</b>
About this guide .....	16
Audience .....	16
Document history.....	16
<b>Chapter 1 Operations .....</b>	<b>17</b>
1.1 Connect instances.....	17
1.1.1 Scopes.....	17
1.1.2 Request.....	17
JSON example .....	17
XML example.....	17
1.1.3 Response.....	18
JSON example .....	18
XML example.....	18
1.2 Connect artifacts.....	19
1.2.1 Scopes.....	19
1.2.2 Request.....	19
JSON example .....	19
XML example.....	19
1.2.3 Response.....	20
JSON example.....	20
XML example.....	20
1.3 Connect monitor .....	21
1.3.1 Scopes.....	21
1.3.2 Request.....	21
JSON example.....	21
XML example.....	21
1.3.3 Response.....	22
JSON example.....	22
XML example.....	22
1.4 Connect VNF end point.....	23
1.4.1 Scopes.....	23
1.4.2 Request.....	23
JSON example.....	23
XML example.....	23
1.4.3 Response.....	23
JSON example.....	23
XML example.....	23
1.5 Create instance .....	24
1.5.1 Scopes.....	24
1.5.2 Request.....	24
JSON example.....	24
XML example.....	24

1.5.3 Response.....	25
JSON example.....	25
XML example.....	25
1.6 Create datacenter.....	26
1.6.1 Scopes.....	26
1.6.2 Request.....	26
JSON example.....	26
XML example.....	26
1.6.3 Response.....	26
JSON example.....	26
XML example.....	27
1.7 Create domain.....	28
1.7.1 Scopes.....	28
1.7.2 Request.....	28
JSON example.....	28
XML example.....	28
1.7.3 Response.....	28
JSON example.....	28
XML example.....	29
1.8 Create monitor.....	30
1.8.1 Scopes.....	30
1.8.2 Request.....	30
JSON example.....	30
XML example.....	30
1.8.3 Response.....	31
JSON example.....	31
XML example.....	31
1.9 Create organization.....	32
1.9.1 Scopes.....	32
1.9.2 Request.....	32
JSON example.....	32
XML example.....	32
1.9.3 Response.....	33
JSON example.....	33
XML example.....	33
1.10 Create tenant.....	34
1.10.1 Scopes.....	34
1.10.2 Request.....	34
JSON example.....	34
XML example.....	34
1.10.3 Response.....	35
JSON example.....	35
XML example.....	35
1.11 Create virtual link.....	36
1.11.1 Scopes.....	36
1.11.2 Request.....	36
JSON example.....	36

XML example.....	36
1.11.3 Response .....	37
JSON example.....	37
XML example.....	37
1.12 Create virtual lun.....	38
1.12.1 Scopes .....	38
1.12.2 Request.....	38
JSON example.....	38
XML example.....	38
1.12.3 Response.....	39
JSON example.....	39
XML example.....	39
1.13 Create VNF group.....	40
1.13.1 Scopes .....	40
1.13.2 Request.....	40
JSON example.....	40
XML example.....	40
1.13.3 Response.....	41
JSON example.....	41
XML example.....	41
1.14 Create VNF.....	42
1.14.1 Scopes.....	42
1.14.2 Request .....	42
JSON example.....	42
XML example.....	42
1.14.3 Response.....	43
JSON example.....	43
XML example.....	43
<b>1.15 Detach Monitor.....</b>	<b>44</b>
1.15.1 Scopes .....	44
1.15.2 Request.....	44
<b>JSON example.....</b>	<b>44</b>
<b>XML example.....</b>	<b>44</b>
<b>1.15.3 Response.....</b>	<b>44</b>
<b>JSON example.....</b>	<b>44</b>
<b>XML example.....</b>	<b>44</b>
<b>1.16 Detach volume.....</b>	<b>45</b>
1.16.1 Scopes .....	45
<b>1.16.2 Request.....</b>	<b>45</b>
<b>JSON example.....</b>	<b>45</b>
<b>XML example.....</b>	<b>45</b>
<b>1.16.3 Response.....</b>	<b>45</b>
<b>JSON example.....</b>	<b>45</b>
<b>XML example.....</b>	<b>45</b>
<b>1.17 Disconnect VNF endpoint.....</b>	<b>46</b>
1.17.1 Scopes .....	46

<b>1.17.2 Request</b> .....	46
JSON example.....	46
XML example.....	46
<b>1.17.3 Response</b> .....	46
JSON example.....	46
XML example.....	47
<b>1.18 Get virtual machine NNMI console</b> .....	48
1.18.1 Scopes.....	48
<b>1.18.2 Request</b> .....	48
JSON example.....	48
XML example.....	48
<b>1.18.3 Response</b> .....	48
JSON example.....	48
XML example.....	48
<b>1.19 Modify artifact status</b> .....	49
1.19.1 Scopes.....	49
<b>1.19.2 Request</b> .....	49
JSON example.....	49
XML example.....	49
<b>1.19.3 Response</b> .....	49
JSON example.....	49
XML example.....	50
<b>1.20 Modify instance status</b> .....	51
1.20.1 Scopes.....	51
<b>1.20.2 Request</b> .....	51
JSON example.....	51
XML example.....	51
<b>1.20.3 Response</b> .....	51
JSON example.....	51
XML example.....	52
<b>1.21 Modify relationship status</b> .....	53
1.21.1 Scopes.....	53
<b>1.21.2 Request</b> .....	53
JSON example.....	53
XML example.....	53
<b>1.21.3 Response</b> .....	54
JSON example.....	54
XML example.....	54
<b>1.22 Delete vnf group instance</b> .....	55
1.22.1 Scopes.....	55
<b>1.22.1 Request</b> .....	55
JSON example.....	55
XML example.....	55
<b>1.22.2 Response</b> .....	55
JSON example.....	55

XML example.....	56
<b>1.23 Delete vnf instance.....</b>	<b>57</b>
1.23.1 Scopes.....	57
<b>1.23.2 Request.....</b>	<b>57</b>
JSON example.....	57
XML example.....	57
<b>1.23.3 Response.....</b>	<b>57</b>
JSON example.....	57
XML example.....	57
<b>1.24 Delete tenant instance.....</b>	<b>58</b>
1.24.1 Scopes.....	58
<b>1.24.2 Request.....</b>	<b>58</b>
JSON example.....	58
XML example.....	58
<b>1.24.3 Response.....</b>	<b>58</b>
JSON example.....	58
XML example.....	58
<b>1.25 Delete organization instance.....</b>	<b>59</b>
1.25.1 Scopes.....	59
<b>1.25.2 Request.....</b>	<b>59</b>
JSON example.....	59
XML example.....	59
<b>1.25.3 Response.....</b>	<b>59</b>
JSON example.....	59
XML example.....	59
<b>1.26 Apply Changes to VNF.....</b>	<b>60</b>
<b>1.26.1 Scopes.....</b>	<b>60</b>
<b>1.26.2 Request.....</b>	<b>60</b>
JSON example.....	60
XML example.....	60
<b>1.26.3 Response.....</b>	<b>60</b>
JSON example.....	60
XML example.....	61
<b>1.27 Apply Changes to VNF FW.....</b>	<b>62</b>
<b>1.27.1 Scopes.....</b>	<b>62</b>
<b>1.27.2 Request.....</b>	<b>62</b>
JSON example.....	62
XML example.....	62
<b>1.27.3 Response.....</b>	<b>62</b>
JSON example.....	62
XML example.....	62
<b>1.28 Apply Changes to VNF LB.....</b>	<b>63</b>
<b>1.28.1 Scopes.....</b>	<b>63</b>
<b>1.28.2 Request.....</b>	<b>63</b>
JSON example.....	63

XML example.....	63
1.28.3 Response.....	63
JSON example.....	63
XML example.....	63
1.29 Associate Floating IP to Virtual Port.....	64
1.29.1 Scopes.....	64
1.29.2 Request.....	64
JSON example.....	64
XML example.....	64
1.29.3 Response.....	64
JSON example.....	64
XML example.....	65
1.30 Create VNF.....	66
1.30.1 Scopes.....	66
1.30.2 Request.....	66
JSON example.....	66
XML example.....	66
1.30.3 Response.....	67
JSON example.....	67
XML example.....	67
1.31 Deploy Network Services.....	68
1.31.1 Scopes.....	68
1.31.2 Request.....	68
JSON example.....	68
XML example.....	68
1.31.3 Response.....	68
JSON example.....	68
XML example.....	69
1.32 Deploy Organization.....	70
1.32.1 Scopes.....	70
1.32.2 Request.....	70
JSON example.....	70
XML example.....	70
1.32.3 Response.....	70
JSON example.....	70
XML example.....	70
1.33 Deploy Tenant.....	71
1.33.1 Scopes.....	71
1.33.2 Request.....	71
JSON example.....	71
XML example.....	71
1.33.3 Response.....	71
JSON example.....	71
XML example.....	71
1.34 Deploy Virtual Link.....	72



1.34.1 Scopes	72
1.34.2 Request	72
JSON example	72
XML example	72
1.34.3 Response	72
JSON example	72
XML example	72
1.35 Deploy VNF	73
1.35.1 Scopes	73
1.35.2 Request	73
JSON example	73
XML example	73
1.35.3 Response	73
JSON example	73
XML example	74
1.36 Deploy VNF Components	74
1.36.1 Scopes	74
1.36.2 Request	74
JSON example	74
XML example	75
1.36.3 Response	75
JSON example	75
XML example	75
1.37 Deploy VNF Group	75
1.37.1 Scopes	75
1.37.2 Request	75
JSON example	75
XML example	76
1.37.3 Response	76
JSON example	76
XML example	76
1.38 Deploy VNF FW	76
1.38.1 Scopes	76
1.38.2 Request	76
JSON example	76
XML example	77
1.38.3 Response	77
JSON example	77
XML example	77
1.39 Deploy VNF LB	78
1.39.1 Scopes	78
1.39.2 Request	78
JSON example	78
XML example	78
1.39.3 Response	78

JSON example.....	78
XML example.....	79
<b>1.40 Dissociate Floating IP from Virtual Port.....</b>	<b>80</b>
<b>1.40.1 Scopes.....</b>	<b>80</b>
<b>1.40.2 Request.....</b>	<b>80</b>
JSON example.....	80
XML example.....	80
<b>1.40.3 Response.....</b>	<b>80</b>
JSON example.....	80
XML example.....	80
<b>1.41 Async Get Console of Virtual Machine.....</b>	<b>81</b>
<b>1.41.1 Scopes.....</b>	<b>81</b>
<b>1.41.2 Request.....</b>	<b>81</b>
JSON example.....	81
XML example.....	81
<b>1.41.3 Response.....</b>	<b>81</b>
JSON example.....	81
XML example.....	81
<b>1.42 Sync Get Console of Virtual Machine.....</b>	<b>82</b>
<b>1.42.1 Scopes.....</b>	<b>82</b>
<b>1.42.2 Request.....</b>	<b>82</b>
JSON example.....	82
XML example.....	82
<b>1.42.3 Response.....</b>	<b>82</b>
JSON example.....	82
XML example.....	82
<b>1.43 Heal VNF.....</b>	<b>83</b>
<b>1.43.1 Scopes.....</b>	<b>83</b>
<b>1.43.2 Request.....</b>	<b>83</b>
JSON example.....	83
XML example.....	83
<b>1.43.3 Response.....</b>	<b>83</b>
JSON example.....	83
XML example.....	84
<b>1.44 Async Migrated VM.....</b>	<b>85</b>
<b>1.44.1 Scopes.....</b>	<b>85</b>
<b>1.44.2 Request.....</b>	<b>85</b>
JSON example.....	85
XML example.....	85
<b>1.44.3 Response.....</b>	<b>85</b>
JSON example.....	85
XML example.....	86
<b>1.45 Sync Migrated VM.....</b>	<b>87</b>
<b>1.45.1 Scopes.....</b>	<b>87</b>
<b>1.45.2 Request.....</b>	<b>87</b>

JSON example.....	87
XML example.....	87
1.45.3 Response.....	87
JSON example.....	87
XML example.....	87
1.46 Sync Live Migrate VM.....	88
1.46.1 Scopes.....	88
1.46.2 Request.....	88
JSON example.....	88
XML example.....	88
1.46.3 Response.....	88
JSON example.....	88
XML example.....	88
1.47 Async Live Migrate of VM.....	89
1.47.1 Scopes.....	89
1.47.2 Request.....	89
JSON example.....	89
XML example.....	89
1.47.3 Response.....	89
JSON example.....	89
XML example.....	90
1.48 Scale Down VNF.....	91
1.48.1 Scopes.....	91
1.48.2 Request.....	91
JSON example.....	91
XML example.....	91
1.48.3 Response.....	91
JSON example.....	91
XML example.....	92
1.49 Sync Scale Down VNF.....	93
1.49.1 Scopes.....	93
1.49.2 Request.....	93
JSON example.....	93
XML example.....	93
1.49.3 Response.....	93
JSON example.....	93
XML example.....	94
1.50 Async Scale In VNF.....	95
1.50.1 Scopes.....	95
1.50.2 Request.....	95
JSON example.....	95
XML example.....	95
1.50.3 Response.....	95
JSON example.....	95
XML example.....	96

<b>1.51 Sync Scale In VNF</b> .....	97
<b>1.51.1 Scopes</b> .....	97
<b>1.51.2 Request</b> .....	97
<b>JSON example</b> .....	97
<b>XML example</b> .....	97
<b>1.51.3 Response</b> .....	97
<b>JSON example</b> .....	97
<b>XML example</b> .....	98
<b>1.52 Async Scale Out VNF</b> .....	99
<b>1.52.1 Scopes</b> .....	99
<b>1.52.2 Request</b> .....	99
<b>JSON example</b> .....	99
<b>XML example</b> .....	99
<b>1.52.3 Response</b> .....	99
<b>JSON example</b> .....	99
<b>XML example</b> .....	100
<b>1.53 Sync Scale Out VNF</b> .....	101
<b>1.53.1 Scopes</b> .....	101
<b>1.53.2 Request</b> .....	101
<b>JSON example</b> .....	101
<b>XML example</b> .....	101
<b>1.53.3 Response</b> .....	101
<b>JSON example</b> .....	101
<b>XML example</b> .....	102
<b>1.54 Async Scale Up VNF</b> .....	103
<b>1.54.1 Scopes</b> .....	103
<b>1.54.2 Request</b> .....	103
<b>JSON example</b> .....	103
<b>XML example</b> .....	103
<b>1.54.3 Response</b> .....	103
<b>JSON example</b> .....	103
<b>XML example</b> .....	104
<b>1.55 Sync Scale Up VNF</b> .....	105
<b>1.55.1 Scopes</b> .....	105
<b>1.55.2 Request</b> .....	105
<b>JSON example</b> .....	105
<b>XML example</b> .....	105
<b>1.55.3 Response</b> .....	105
<b>JSON example</b> .....	105
<b>XML example</b> .....	106
<b>1.56 Async Scale In VNF_COMPONENT</b> .....	107
<b>1.56.1 Scopes</b> .....	107
<b>1.56.2 Request</b> .....	107
<b>JSON example</b> .....	107
<b>XML example</b> .....	107

1.56.3 Response	107
JSON example	107
XML example	108
1.57 Sync Scale In VNF_COMPONENT	109
1.57.1 Scopes	109
1.57.2 Request	109
JSON example	109
XML example	109
1.57.3 Response	109
JSON example	109
XML example	110
1.58 Async Scale Out VNF_COMPONENT	111
1.58.1 Scopes	111
1.58.2 Request	111
JSON example	111
XML example	111
1.58.3 Response	111
JSON example	111
XML example	112
1.59 Sync Scale Out VNF_COMPONENT	113
1.59.1 Scopes	113
1.59.2 Request	113
JSON example	113
XML example	113
1.59.3 Response	113
JSON example	113
XML example	114
1.60 Start Virtual Machine	115
1.60.1 Scopes	115
1.60.2 Request	115
JSON example	115
XML example	115
1.60.3 Response	115
JSON example	115
XML example	116
1.61 Stop Virtual Machine	117
1.61.1 Scopes	117
1.61.2 Request	117
JSON example	117
XML example	117
1.61.3 Response	117
JSON example	117
XML example	118
1.62 Undeploy Network Service	119
1.62.1 Scopes	119

1.62.2 Request	119
JSON example	119
XML example	119
1.62.3 Response	119
JSON example	119
XML example	120
1.63 Undeploy Organization	121
1.63.1 Scopes	121
1.63.2 Request	121
JSON example	121
XML example	121
1.63.3 Response	121
JSON example	121
XML example	122
1.64 Undeploy Tenant	123
1.64.1 Scopes	123
1.64.2 Request	123
JSON example	123
XML example	123
1.64.3 Response	123
JSON example	123
XML example	124
1.65 Undeploy Virtual Link	125
1.65.1 Scopes	125
1.65.2 Request	125
JSON example	125
XML example	125
1.65.3 Response	125
JSON example	125
XML example	126
1.66 Undeploy VNF	127
1.66.1 Scopes	127
1.66.2 Request	127
JSON example	127
XML example	127
1.66.3 Response	127
JSON example	127
XML example	128
1.67 Undeploy FW	129
1.67.1 Scopes	129
1.67.2 Request	129
JSON example	129
XML example	129
1.67.3 Response	129
JSON example	129

<b>XML example</b> .....	130
<b>1.68 Undeploy VNF Group</b> .....	131
<b>1.68.1 Scopes</b> .....	131
<b>1.68.2 Request</b> .....	131
<b>JSON example</b> .....	131
<b>XML example</b> .....	131
<b>1.68.3 Response</b> .....	131
<b>JSON example</b> .....	131
<b>XML example</b> .....	132
<b>1.69 Undeploy LB</b> .....	133
<b>1.69.1 Scopes</b> .....	133
<b>1.69.2 Request</b> .....	133
<b>JSON example</b> .....	133
<b>XML example</b> .....	133
<b>1.69.3 Response</b> .....	133
<b>JSON example</b> .....	133
<b>XML example</b> .....	134

# List of tables

Table 1: Document history .....	16
---------------------------------	----



# Preface

---

## About this guide

---

This guide explains the NFV Director Operations APIs.

## Audience

---

This document is targeting solution architects and solution integrators.

## Document history

---

**Table 1: Document history**

Edition	Date	Description
1.0	March 14 2017	First Edition

# Chapter 1 Operations

## 1.1 Connect instances

### 1.1.1 Scopes

scope	trackable	retryable	rollbackable
domain	false	false	false
organization	false	false	false
tenant	false	false	false
vnf_group	false	false	false
nfvd	false	false	false

### 1.1.2 Request

Parameters:

input-param	condition
sourceInstance	Mandatory
targetInstance	Mandatory

#### JSON example

```
{
  "operation": "CONNECT",
  "type": "INSTANCE",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "sourceInstance",
      "value": "{sourceInstance}"
    },
    {
      "key": "targetInstance",
      "value": "{targetInstance}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CONNECT</operation>
  <type>INSTANCE</type>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>sourceInstance</key>
      <value>{sourceInstance}</value>
    </parameter>
    <parameter>
      <key>targetInstance</key>
      <value>{targetInstance}</value>
    </parameter>
  </input-params>
</operation-request>
```

## 1.1.3 Response

### JSON example

```
{  
  "code": 200,  
  "description": "Operation finished successfully",  
  "start-timestamp": "2015-07-31T07:51:46.784+0200",  
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",  
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.2 Connect artifacts

### 1.2.1 Scopes

scope	trackable	retryable	rollbackable
domain	false	false	false
organization	false	false	false
tenant	false	false	false
vnf_group	false	false	false
nfvd	false	false	false

### 1.2.2 Request

Parameters:

input-param	condition
status	Mandatory
relationshipType	Mandatory
childArtifactID	Mandatory
parentArtifactID	Mandatory

#### JSON example

```
{
  "operation": "CONNECT",
  "type": "INSTANCE",
  "subtype": "ARTIFACTS",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "status",
      "value": "{status}"
    },
    {
      "key": "relationshipType",
      "value": "{relationshipType}"
    },
    {
      "key": "childArtifactID",
      "value": "{childArtifactID}"
    },
    {
      "key": "parentArtifactID",
      "value": "{parentArtifactID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CONNECT</operation>
  <type>INSTANCE</type>
  <subtype>ARTIFACTS</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key> status </key>
      <value>{ status }</value>
    </parameter>
    <parameter>
      <key>relationshipType</key>
      <value>{relationshipType}</value>
    </parameter>
    <parameter>
      <key>childArtifactID</key>
      <value>{childArtifactID}</value>
    </parameter>
  </input-params>
</operation-request>
```

```
        <parameter>
            <key>parentArtifactID</key>
            <value>{parentArtifactID}</value>
        </parameter>
    </input-params>
</operation-request>
```

## 1.2.3 Response

### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.3 Connect monitor

### 1.3.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.3.2 Request

Parameters:

input-param	condition
sourceInstance	Mandatory
sourceArtifactInstance	Mandatory
pluggedArtifactInstance	Optional
unpluggedArtifactInstance	Optional

#### JSON example

```
{
  "operation": "CONNECT",
  "type": "INSTANCE",
  "subtype": "MONITOR",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "sourceInstance",
      "value": "{sourceInstance}"
    },
    {
      "key": "sourceArtifactInstance",
      "value": "{sourceArtifactInstance}"
    },
    {
      "key": "pluggedArtifactInstance",
      "value": "{pluggedArtifactInstance}"
    },
    {
      "key": "unpluggedArtifactInstance",
      "value": "{unpluggedArtifactInstance}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CONNECT</operation>
  <type>INSTANCE</type>
  <subtype>MONITOR</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>sourceInstance</key>
      <value>{sourceInstance}</value>
    </parameter>
    <parameter>
      <key>sourceArtifactInstance</key>
      <value>{sourceArtifactInstance}</value>
    </parameter>
    <parameter>
      <key>pluggedArtifactInstance</key>
      <value>{pluggedArtifactInstance}</value>
    </parameter>
    <parameter>
      <key>unpluggedArtifactInstance</key>
      <value>{unpluggedArtifactInstance}</value>
    </parameter>
  </input-params>
</operation-request>
```

```
</operation-request>
```

## 1.3.3 Response

### JSON example

```
{  
  "code": 200,  
  "description": "Operation finished successfully",  
  "start-timestamp": "2015-07-31T07:51:46.784+0200",  
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",  
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.4 Connect VNF end point

### 1.4.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.4.2 Request

Parameters:

input-param	condition
sourceInstance	Mandatory
targetInstance	Mandatory

#### JSON example

```
{
  "operation": "CONNECT",
  "type": "INSTANCE",
  "subtype": "VNF_ENDPOINT",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "sourceInstance",
      "value": "{sourceInstance}"
    },
    {
      "key": "targetInstance",
      "value": "{targetInstance}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CONNECT</operation>
  <type>INSTANCE</type>
  <subtype>VNF_ENDPOINT</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>sourceInstance</key>
      <value>{sourceInstance}</value>
    </parameter>
    <parameter>
      <key>targetInstance</key>
      <value>{targetInstance}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.4.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```



## 1.5 Create instance

### 1.5.1 Scopes

scope	trackable	retryable	rollbackable
domain	false	false	false
organization	false	false	false
tenant	false	false	false
vnf_group	false	false	false
nfvd	false	false	false

### 1.5.2 Request

Parameters:

input-param	condition
templateID	Mandatory
instanceName	Mandatory
instanceDescription	Optional
parentInstanceId	Optional

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "instanceName",
      "value": "{ instanceName}"
    },
    {
      "key": "instanceDescription",
      "value": "{ instanceDescription }"
    },
    {
      "key": "parentInstanceId",
      "value": "{ parentInstanceId }"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID</key>
      <value>{templateID}</value>
    </parameter>
    <parameter>
      <key>instanceName</key>
      <value>{ instanceName }</value>
    </parameter>
    <parameter>
      <key>instanceDescription</key>
      <value>{ instanceDescription }</value>
    </parameter>
    <parameter>
      <key>parentInstanceId</key>
      <value>{ parentInstanceId }</value>
    </parameter>
  </input-params>
</operation-request>
```

## 1.5.3 Response

### JSON example

```
{  
  "code": 200,  
  "description": "Operation finished successfully",  
  "start-timestamp": "2015-07-31T07:51:46.784+0200",  
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",  
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.6 Create datacenter

### 1.6.1 Scopes

scope	trackable	retryable	rollbackable
domain	false	false	false

### 1.6.2 Request

Parameters:

input-param	condition
templateID	Mandatory
datacenterName	Mandatory
datacenterDescription	Optional

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "DATACENTER",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "datacenterName",
      "value": "{ datacenterName}"
    },
    {
      "key": "datacenterDescription",
      "value": "{ datacenterDescription}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>DATACENTER</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID</key>
      <value>{templateID}</value>
    </parameter>
    <parameter>
      <key>datacenterName</key>
      <value>{ datacenterName}</value>
    </parameter>
    <parameter>
      <key>datacenterDescription</key>
      <value>{ datacenterDescription}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.6.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
```

}

**XML example**

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.7 Create domain

### 1.7.1 Scopes

scope	trackable	retryable	rollbackable
nfvd	false	false	false

### 1.7.2 Request

Parameters:

input-param	condition
templateID	Mandatory
domainName	Mandatory
domainDescription	Optional

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "DOMAIN",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "domainName",
      "value": "{ domainName}"
    },
    {
      "key": "domainDescription",
      "value": "{ domainDescription}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>DOMAIN</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID</key>
      <value>{templateID}</value>
    </parameter>
    <parameter>
      <key>domainName</key>
      <value>{ domainName}</value>
    </parameter>
    <parameter>
      <key>domainDescription</key>
      <value>{ domainDescription}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.7.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
}
```

```
"finish-timestamp": "2015-07-31T07:51:46.893+0200",  
"delivery-timestamp": "2015-07-31T07:51:46.789+0200"  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.8 Create monitor

### 1.8.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.8.2 Request

Parameters:

input-param	condition
templateID	Mandatory
monitorName	Mandatory
monitorDescription	Optional
parentInstanceId	Optional
vmInstanceId	Mandatory

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "MONITOR",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "monitorName",
      "value": "{ monitorName}"
    },
    {
      "key": "monitorDescription",
      "value": "{ monitorDescription}"
    },
    {
      "key": "parentInstanceId",
      "value": "{ parentInstanceId }"
    },
    {
      "key": "vmInstanceId ",
      "value": "{ vmInstanceId }"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>MONITOR</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID/key>
      <value>{templateID}</value>
    </parameter>
    <parameter>
      <key>monitorName</key>
      <value>{ monitorName}</value>
    </parameter>
    <parameter>
      <key>monitorDescription</key>
      <value>{ monitorDescription}</value>
    </parameter>
  </input-params>
</operation-request>
```

```

    </parameter>
    <parameter>
      <key>parentInstanceId</key>
      <value>{ parentInstanceId }</value>
    </parameter>
    <parameter>
      <key>vmInstanceId</key>
      <value>{ vmInstanceId }</value>
    </parameter>
  </input-params>
</operation-request>

```

## 1.8.3 Response

### JSON example

```

{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}

```

### XML example

```

<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>

```



## 1.9 Create organization

### 1.9.1 Scopes

scope	trackable	retryable	rollbackable
domain	true	false	false

### 1.9.2 Request

Parameters:

input-param	condition
<b>templateID</b>	<b>Mandatory</b>
<b>organizationName</b>	<b>Mandatory</b>
<b>organizationDescription</b>	<b>Optional</b>
<b>dcInstanceId</b>	<b>Optional</b>

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "ORGANIZATION",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "organizationName",
      "value": "{ organizationName}"
    },
    {
      "key": "organizationDescription",
      "value": "{ organizationDescription}"
    },
    {
      "key": "dcInstanceId",
      "value": "{ dcInstanceId}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>ORGANIZATION</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID/key>
      <value>{templateID}</value>
    </parameter>
    <parameter>
      <key>organizationName</key>
      <value>{ organizationName}</value>
    </parameter>
    <parameter>
      <key>organizationDescription</key>
      <value>{ organizationDescription}</value>
    </parameter>
    <parameter>
      <key> dcInstanceId</key>
      <value>{ dcInstanceId}</value>
    </parameter>
  </input-params>
</operation-request>
```

## 1.9.3 Response

### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.10 Create tenant

### 1.10.1 Scopes

scope	trackable	retryable	rollbackable
organization	true	false	false

### 1.10.2 Request

Parameters:

input-param	condition
templateID	Mandatory
tenantName	Mandatory
tenantDescription	Optional
dcInstanceId	Optional

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "TENANT",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "tenantName",
      "value": "{tenantName}"
    },
    {
      "key": "tenantDescription",
      "value": "{tenantDescription}"
    },
    {
      "key": "dcInstanceId",
      "value": "{dcInstanceId}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>TENANT</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID/key>
      <value>{templateID}</value>
    </parameter>
    <parameter>
      <key>tenantName</key>
      <value>{tenantName}</value>
    </parameter>
    <parameter>
      <key>tenantDescription</key>
      <value>{tenantDescription}</value>
    </parameter>
    <parameter>
      <key>dcInstanceId</key>
      <value>{dcInstanceId}</value>
    </parameter>
  </input-params>
</operation-request>
```

## 1.10.3 Response

### JSON example

```
{  
  "code": 200,  
  "description": "Operation finished successfully",  
  "start-timestamp": "2015-07-31T07:51:46.784+0200",  
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",  
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.11 Create virtual link

### 1.11.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false

### 1.11.2 Request

Parameters:

input-param	condition
templateID	Mandatory
virtualLinkName	Mandatory
virtualLinkDescription	Optional

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_LINK",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "virtualLinkName",
      "value": "{ virtualLinkName}"
    },
    {
      "key": "virtualLinkDescription",
      "value": "{ virtualLinkDescription}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_LINK</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID</key>
      <value>{templateID}</value>
    </parameter>
    <parameter>
      <key>virtualLinkName</key>
      <value>{ virtualLinkName}</value>
    </parameter>
    <parameter>
      <key>virtualLinkDescription</key>
      <value>{ virtualLinkDescription}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.11.3 Response

#### JSON example

```
{  
  "code": 200,  
  "description": "Operation finished successfully",  
  "start-timestamp": "2015-07-31T07:51:46.784+0200",  
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",  
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"  
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.12 Create virtual lun

### 1.12.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.12.2 Request

Parameters:

input-param	condition
templateID	Mandatory
storageName	Mandatory
storageDescription	Optional
parentInstanceId	Optional
vmInstanceId	Mandatory

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_LUN",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "storageName",
      "value": "{ storageName }"
    },
    {
      "key": "storageDescription",
      "value": "{ storageDescription }"
    },
    {
      "key": "parentInstanceId",
      "value": "{ parentInstanceId }"
    },
    {
      "key": "vmInstanceId ",
      "value": "{ vmInstanceId }"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_LUN</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID/key>
      <value>{templateID}</value>
    </parameter>
    <parameter>

```

```

        <key>storageName</key>
        <value>{ storageName }</value>
    </parameter>
    <parameter>
        <key>storageDescription</key>
        <value>{ storageDescription }</value>
    </parameter>
    <parameter>
        <key>parentInstanceId</key>
        <value>{ parentInstanceId }</value>
    </parameter>
    <parameter>
        <key>vmInstanceId</key>
        <value>{ vmInstanceId }</value>
    </parameter>
</input-params>
</operation-request>

```

### 1.12.3 Response

#### JSON example

```

{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}

```

#### XML example

```

<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>

```



## 1.13 Create VNF group

### 1.13.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false

### 1.13.2 Request

Parameters:

input-param	condition
templateID	Mandatory
vnfsGroupName	Mandatory
vnfsGroupDescription	Optional
dcInstanceId	Optional

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "VNF_GROUP",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "vnfsGroupName",
      "value": "{ vnfsGroupName}"
    },
    {
      "key": "vnfsGroupDescription",
      "value": "{ vnfsGroupDescription}"
    },
    {
      "key": "dcInstanceId",
      "value": "{ dcInstanceId}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>VNF_GROUP</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID</key>
      <value>{templateID}</value>
    </parameter>
    <parameter>
      <key>vnfsGroupName</key>
      <value>{ vnfsGroupName}</value>
    </parameter>
    <parameter>
      <key>vnfsGroupDescription</key>
      <value>{ vnfsGroupDescription}</value>
    </parameter>
    <parameter>
      <key> dcInstanceId</key>
      <value>{ dcInstanceId}</value>
    </parameter>
  </input-params>
</operation-request>
```

```

        </parameter>
    </input-params>
</operation-request>

```

## 1.13.3 Response

### JSON example

```

{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}

```

### XML example

```

<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
  <parameter>
    <key>modeInstanceID</key>
    <value>{modeInstanceID}</value>
  </parameter>
</input-params>
</operation-request>

```

## 1.14 Create VNF

### 1.14.1 Scopes

scope	trackable	retryable	rollbackable
<b>vnf_group</b>	<b>false</b>	<b>false</b>	<b>false</b>
<b>nfvd</b>	<b>false</b>	<b>false</b>	<b>false</b>

### 1.14.2 Request

Parameters:

input-param	condition
<b>templateID</b>	<b>Mandatory</b>
<b>vnfName</b>	<b>Mandatory</b>
<b>vnfDescription</b>	<b>Optional</b>

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "vnfName",
      "value": "{ vnfName}"
    },
    {
      "key": "vnfDescription",
      "value": "{ vnfDescription}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>VNF</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>templateID</key>
      <value>{templateID}</value>
    </parameter>
    <parameter>
      <key>vnfName</key>
      <value>{ vnfName}</value>
    </parameter>
    <parameter>
      <key>vnfDescription</key>
      <value>{ vnfDescription}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.14.3 Response

#### JSON example

```
{
  "code": 200,
  "instanceId": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <instanceId> c60577ad-7881-4208-a0f5-35b7d99a6395</instanceId>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
  <parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

## 1.15 Detach Monitor

### 1.15.1 Scopes

Scope	trackable	retryable	rollbackable
nfvd	true	false	false
tenant	true	false	false
vnf_group	true	false	false

### 1.15.2 Request

Parameters:

input-param	condition
instanceId	Mandatory

#### JSON example

```
{
  "operation": "DETACH",
  "type": "INSTANCE",
  "subtype": "MONITOR",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceId",
      "value": "{instanceId}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>DETACH</operation>
  <type>INSTANCE</type>
  <subtype>MONITOR</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.15.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Synchronus operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.16 Detach volume

### 1.16.1 Scopes

scope	trackable	retryable	rollbackable
<b>nfv</b>	<b>true</b>	<b>false</b>	<b>false</b>
<b>tenant</b>	<b>true</b>	<b>false</b>	<b>false</b>
<b>vnf_group</b>	<b>true</b>	<b>false</b>	<b>false</b>

### 1.16.2 Request

Parameters:

input-param	condition
<b>instanceId</b>	<b>Mandatory</b>

#### JSON example

```
{
  "operation": "DETACH",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_LUN",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfv-ext">
  <operation>DETACH</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_LUN</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.16.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully ",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfv-ext">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.17 Disconnect VNF endpoint

### 1.17.1 Scopes

scope	trackable	retryable	rollbackable
tenant	false	false	false
vnf_group	false	false	false

### 1.17.2 Request

Parameters:

input-param	condition
sourceInstance	Mandatory
targetInstance	Mandatory, Multiple

#### JSON example

```
{
  "operation": "DISCONNECT",
  "type": "INSTANCE",
  "subtype": "VNF_ENDPOINT",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "sourceInstance",
      "value": "{sourceInstance}"
    },
    {
      "key": "targetInstance",
      "value": "{targetInstance}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>DISCONNECT</operation>
  <type>INSTANCE</type>
  <subtype>VNF_ENDPOINT</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>sourceInstance</key>
      <value>{ sourceInstance}</value>
    </parameter>
    <parameter>
      <key>targetInstance</key>
      <value>{ targetInstance}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.17.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully ",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```



## 1.18 Get virtual machine NNMi console

### 1.18.1 Scopes

scope	trackable	retryable	rollbackable
vnf_group	false	false	false

### 1.18.2 Request

Scopes:

scope	trackable	retryable	rollbackable
vnf_group	false	false	false

Parameters:

input-param	condition
vmInstance	Mandatory

#### JSON example

```
{
  "operation": "GET_CONSOLE",
  "type": "VIRTUAL_MACHINE",
  "subtype": "NNMI",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "vmInstance",
      "value": "{vmInstance}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>GET_CONSOLE</operation>
  <type>VIRTUAL_MACHINE</type>
  <subtype>NNMI</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>vmInstance</key>
      <value>{vmInstance}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.18.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully ",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <description>Operation finished successfully</description>
```

```
<finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
<start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
```

```
</operation-response>
```

## 1.19 Modify artifact status

### 1.19.1 Scopes

scope	trackable	retryable	rollbackable
domain	false	false	false
nfvd	false	false	false
organization	false	false	false
tenant	false	false	false
vnf_group	false	false	false

### 1.19.2 Request

Parameters:

input-param	condition
artifactId	Mandatory
newStatus	Mandatory

#### JSON example

```
{
  "operation": "MODIFY",
  "type": "ARTIFACT",
  "subtype": "STATUS",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "artifactId",
      "value": "{artifactId}"
    },
    {
      "key": "newStatus",
      "value": "{newStatus}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>MODIFY</operation>
  <type>ARTIFACT</type>
  <subtype>STATUS</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>artifactId</key>
      <value>{artifactId}</value>
    </parameter>
    <parameter>
      <key>newStatus</key>
      <value>{newStatus}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.19.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully ",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
```

```
"start-timestamp": "2015-07-31T07:50:29.323+0200",  
"finish-timestamp": "2015-07-31T07:50:29.513+0200",  
"delivery-timestamp": "2015-07-31T07:51:46.789+0200",  
"output-params": []  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.20 Modify instance status

### 1.20.1 Scopes

scope	trackable	retryable	rollbackable
nfvd	false	false	false

### 1.20.2 Request

Parameters:

input-param	condition
instanceId	Mandatory
newStatus	Mandatory

#### JSON example

```
{
  "operation": "MODIFY",
  "type": "INSTANCE",
  "subtype": "STATUS",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceId",
      "value": "{instanceId}"
    },
    {
      "key": "newStatus",
      "value": "{newStatus}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>MODIFY</operation>
  <type>INSTANCE</type>
  <subtype>STATUS</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceId</key>
      <value>{instanceId}</value>
    </parameter>
    <parameter>
      <key>newStatus</key>
      <value>{newStatus}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.20.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully ",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.21 Modify relationship status

### 1.21.1 Scopes

scope	trackable	retryable	rollbackable
domain	false	false	false
nfv	false	false	false
organization	false	false	false
tenant	false	false	false
vnf_group	false	false	false

### 1.21.2 Request

Parameters:

input-param	condition
childArtifactId	Mandatory
parentArtifactId	Mandatory
type	Mandatory
newStatus	Mandatory

#### JSON example

```
{
  "operation": "MODIFY",
  "type": "RELATIONSHIP",
  "subtype": "STATUS",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "childArtifactId",
      "value": "{childArtifactId}"
    },
    {
      "key": "parentArtifactId",
      "value": "{parentArtifactId}"
    },
    {
      "key": "type",
      "value": "{type}"
    },
    {
      "key": "newStatus",
      "value": "{newStatus}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfv-ext">
  <operation>MODIFY</operation>
  <type>RELATIONSHIP</type>
  <subtype>STATUS</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>childArtifactId</key>
      <value>{childArtifactId}</value>
    </parameter>
    <parameter>
      <key>parentArtifactId</key>
      <value>{parentArtifactId}</value>
    </parameter>
  </input-params>
</operation-request>
```

```

    <parameter>
      <key>type</key>
      <value>{type}</value>
    </parameter>
  <parameter>
    <key>newStatus</key>
    <value>{newStatus}</value>
  </parameter>
</input-params>
</operation-request>

```

## 1.21.3 Response

### JSON example

```

{
  "code": 200,
  "description": "Operation finished successfully ",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}

```

### XML example

```

<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>

```

## 1.22 Delete vnf group instance

### 1.22.1 Scopes

Scope	trackable	retryable	rollbackable
<b>nfv</b>	<b>false</b>	<b>false</b>	<b>false</b>
<b>vnf_group</b>	<b>false</b>	<b>false</b>	<b>false</b>

### 1.22.1 Request

Scopes:

Scope	trackable	retryable	rollbackable
<b>nfv</b>	<b>false</b>	<b>false</b>	<b>false</b>
<b>vnf_group</b>	<b>false</b>	<b>false</b>	<b>false</b>

Parameters:

input-param	condition
<b>instanceId</b>	<b>Mandatory</b>

#### JSON example

```
{
  "operation": "DELETE",
  "type": "INSTANCE",
  "subtype": "VNF_GROUP",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceId",
      "value": "{instanceId}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfv-ext">
  <operation>DELETE</operation>
  <type>INSTANCE</type>
  <subtype>VNF_GROUP</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.22.2 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully ",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```



## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.23 Delete vnf instance

### 1.23.1 Scopes

Scope	trackable	retryable	rollbackable
nfvd	true	false	false
vnf_group	true	false	false

### 1.23.2 Request

Parameters:

input-param	condition
instanceId	Mandatory

#### JSON example

```
{
  "operation": "DELETE",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceId",
      "value": "{instanceId}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>DELETE</operation>
  <type>INSTANCE</type>
  <subtype>VNF</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceId</key>
      <value>{instanceId}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.23.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully ",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.24 Delete tenant instance

### 1.24.1 Scopes

Scope	trackable	retryable	rollbackable
nfvd	false	false	false
tenant	false	false	false
vnf_group	false	false	false

### 1.24.2 Request

Parameters:

input-param	condition
instanceId	Mandatory

#### JSON example

```
{
  "operation": "DELETE",
  "type": "INSTANCE",
  "subtype": "TENANT",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceId",
      "value": "{instanceId}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd-ext">
  <operation>DELETE</operation>
  <type>INSTANCE</type>
  <subtype>TENANT </subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceId</key>
      <value>{instanceId}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.24.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Synchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
```

```
<start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.25 Delete organization instance

### 1.25.1 Scopes

Scope	trackable	retryable	rollbackable
nfv	false	false	false
organization	false	false	false
tenant	false	false	false
vnf_group	false	false	false

### 1.25.2 Request

Parameters:

input-param	condition
instanceId	Mandatory

#### JSON example

```
{
  "operation": "DELETE",
  "type": "INSTANCE",
  "subtype": "ORGANIZATION",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceId",
      "value": "{instanceId}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfv-ext">
  <operation>DELETE</operation>
  <type>INSTANCE</type>
  <subtype>ORGANIZATION</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceId</key>
      <value>{instanceId}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.25.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Synchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": "2015-07-31T07:50:29.323+0200",
  "finish-timestamp": "2015-07-31T07:50:29.513+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfv-ext">
  <code>200</code>
```

```

    <description>Operation finished successfully</description>
    <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
    <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
  </operation-response>

```

## 1.26 Apply Changes to VNF

### 1.26.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.26.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory
resourceArtifactID	Mandatory

#### JSON example

```

{
  "operation": "APPLY_CHANGES",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": " instanceID",
      "value": "{instanceID}"
    },
    {
      "key": " modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": " resourceArtifactID",
      "value": "{resourceArtifactID}"
    }
  ]
}

```

#### XML example

```

<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>APPLY_CHANGES</operation>
  <type>INSTANCE</type>
  <subtype>VNF</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{ instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{ modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>resourceArtifactID</key>
      <value>{ resourceArtifactID}</value>
    </parameter>
  </input-params>
</operation-request>

```

### 1.26.3 Response

#### JSON example

```

{
  "code": 503,

```

```
"description": "Asynchronous operation successfully launched",  
"id": "c60577ad-7881-4208-a0f5-35b7d99a6395",  
"start-timestamp": null,  
"finish-timestamp": null,  
"delivery-timestamp": "2015-07-31T07:51:46.789+0200",  
"output-params": []  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.27 Apply Changes to VNF FW

### 1.27.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	false
vnf_group	true	true	false

### 1.27.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "APPLY_CHANGES",
  "type": "INSTANCE",
  "subtype": "VNF_FW",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>APPLY_CHANGES</operation>
  <type>INSTANCE</type>
  <subtype>VNF_FW</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.27.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
```

&lt;start-timestamp&gt;2015-07-31T07:50:29.323+0200&lt;/start-timestamp&gt;

&lt;/operation-response&gt;

## 1.28 Apply Changes to VNF LB

### 1.28.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	false
vnf_group	true	true	false

### 1.28.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "APPLY_CHANGES",
  "type": "INSTANCE",
  "subtype": "VNF_LB",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>APPLY_CHANGES</operation>
  <type>INSTANCE</type>
  <subtype>VNF_LB</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key> modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.28.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
```



```
<finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
```

```
<start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
```

```
</operation-response>
```

## 1.29 Associate Floating IP to Virtual Port

### 1.29.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.29.2 Request

Parameters:

input-param	condition
modeInstanceID	modeInstanceID
VirtualPortArtifactInstanceID	VirtualPortArtifactInstanceID

#### JSON example

```
{
  "operation": "ASSOCIATE_FLOATINGIP",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_PORT",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "VirtualPortArtifactInstanceID",
      "value": "{VirtualPortArtifactInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>ASSOCIATE_FLOATINGIP</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_PORT</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>VirtualPortArtifactInstanceID</key>
      <value>{VirtualPortArtifactInstanceID}</value>
    </parameter>
    <parameter>
      <key>organizationDescription</key>
      <value>{organizationDescription}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.29.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.30 Create VNF

### 1.30.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.30.2 Request

Parameters:

input-param	condition
vnfName	Mandatory
primaryParentArtifactInstanceID	Mandatory
vnfGroupID	Mandatory
secondaryParentArtifactInstanceID	Mandatory
templateID	Mandatory
RelationshipType	Mandatory
ExtraRelationshipTypes	Mandatory

#### JSON example

```
{
  "operation": "CREATE",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "vnfName",
      "value": "{vnfName}"
    },
    {
      "key": "vnfGroupID",
      "value": "{vnfGroupID}"
    },
    {
      "key": "secondaryParentArtifactInstanceID",
      "value": "{secondaryParentArtifactInstanceID}"
    },
    {
      "key": "templateID",
      "value": "{templateID}"
    },
    {
      "key": "RelationshipType",
      "value": "{RelationshipType}"
    },
    {
      "key": "ExtraRelationshipTypes",
      "value": "{ExtraRelationshipTypes}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>VNF</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key> vnfName</key>
      <value>{vnfName}</value>
    
```

```

    </parameter>
  <parameter>
    <key> primaryParentArtifactInstanceID</key>
    <value>{primaryParentArtifactInstanceID}</value>
  </parameter>
  <parameter>
    <key>vnfGroupID</key>
    <value>{vnfGroupID}</value>
  </parameter>
  <parameter>
    <key>secondaryParentArtifactInstanceID</key>
    <value>{secondaryParentArtifactInstanceID}</value>
  </parameter>
  <parameter>
    <key>templateID</key>
    <value>{ templateID}</value>
  </parameter>
  <parameter>
    <key>vnfDescription</key>
    <value>{ vnfDescription}</value>
  </parameter>
  <parameter>
    <key>tenantID</key>
    <value>{tenantI}</value>
  </parameter>
</input-params>
</operation-request>

```

### 1.30.3 Response

#### JSON example

```

{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}

```

#### XML example

```

<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>

```

## 1.31 Deploy Network Services

### 1.31.1 Scopes

scope	trackable	retryable	rollbackable
domain	true	true	true
organization	true	true	true
tenant	true	true	true

### 1.31.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory
resourceArtifactId	Mandatory

#### JSON example

```
{
  "operation": "DEPLOY",
  "type": "INSTANCE",
  "subtype": "NETWORK_SERVICE",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "resourceArtifactID",
      "value": "{resourceArtifactID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>NETWORK_SERVICE</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key> modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>resourceArtifactID</key>
      <value>{resourceArtifactID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.31.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
}
```

```
"start-timestamp": null,  
"finish-timestamp": null,  
"delivery-timestamp": "2015-07-31T07:51:46.789+0200",  
"output-params": []  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.32 Deploy Organization

### 1.32.1 Scopes

scope	trackable	retryable	rollbackable
domain	true	true	true

### 1.32.2 Request

Parameters:

input-param	condition
modeInstanceID	Mandatory
instanceID	Mandatory

#### JSON example

```
{
  "operation": "DEPLOY",
  "type": "INSTANCE",
  "subtype": "ORGANIZATION",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>ORGANIZATION</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.32.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

&lt;/operation-response&gt;

## 1.33 Deploy Tenant

### 1.33.1 Scopes

scope	trackable	retryable	rollbackable
<b>organization</b>	<b>true</b>	<b>true</b>	<b>true</b>

### 1.33.2 Request

Parameters:

input-param	condition
<b>modeInstanceID</b>	<b>Mandatory</b>
<b>instanceID</b>	<b>Mandatory</b>

#### JSON example

```
{
  "operation": "DEPLOY",
  "type": "INSTANCE",
  "subtype": "TENANT",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>TENANT</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.33.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
</operation-response>
```



<start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
 </operation-response>

## 1.34 Deploy Virtual Link

### 1.34.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	true

### 1.34.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "DEPLOY",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_LINK",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>CREATE</operation>
  <type>INSTANCE</type>
  <subtype>ORGANIZATION</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.34.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
```

```
<finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
```

```
<start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
```

```
</operation-response>
```

## 1.35 Deploy VNF

### 1.35.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	true
vnf_group	true	true	true

### 1.35.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory
resourceArtifactID	Mandatory

#### JSON example

```
{
  "operation": "DEPLOY",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "resourceArtifactID",
      "value": "{resourceArtifactID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key> resourceArtifactID </key>
      <value>{resourceArtifactID}</value>
    </parameter>
    <parameter>
      <key> modeInstanceID </key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.35.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
}
```

```

    "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
    "start-timestamp": null,
    "finish-timestamp": null,
    "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
    "output-params": []
  }

```

### XML example

```

<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>

```

## 1.36 Deploy VNF Components

### 1.36.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	true
vnf_group	true	true	true

### 1.36.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory
resourceArtifactID	Mandatory
vnfComponentID	Mandatory

### JSON example

```

{
  "operation": "DEPLOY",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ],
  "input-params-maps": [
    {
      "key": "vnfComponent",
      "input-params": [
        {
          "key": "instanceID",
          "value": "{vnfComponentID}"
        },
        {
          "key": "resourceArtifactID",
          "value": "{resourceArtifactID}"
        }
      ]
    }
  ]
}

```

## XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key> modeInstanceID </key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
  < input-params-maps >
    <parameter>
      <key>vnfComponent</key>
      <input-params>
        <parameter>
          <key>instanceID</key>
          <value>{ vnfComponentID }</value>
        </parameter>
        <parameter>
          <key> resourceArtifactID</key>
          <value>{ resourceArtifactID }</value>
        </parameter>
      </input-params>
    </parameter>
  </ input-params-maps >
</operation-request>
```

### 1.36.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.37 Deploy VNF Group

### 1.37.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	true

### 1.37.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "DEPLOY",
  "type": "INSTANCE",
```

```

"subtype": "VNF_GROUP",
"communication-type": "ASYNC",
"input-params":
[
  {
    "key": "modeInstanceID",
    "value": "{modeInstanceID}"
  },
  {
    "key": "instanceID",
    "value": "{instanceID}"
  }
]
}

```

### XML example

```

<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF_GROUP</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>

```

## 1.37.3 Response

### JSON example

```

{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}

```

### XML example

```

<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>

```

## 1.38 Deploy VNF FW

### 1.38.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	true
vnf_group	true	true	true

### 1.38.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory
resourceArtifactID	Mandatory

### JSON example

```

{

```

```

"operation": "DEPLOY",
"type": "INSTANCE",
"subtype": "VNF_FW",
"communication-type": "ASYNC",
"input-params":
[
  {
    "key": "instanceID",
    "value": "{instanceID}"
  },
  {
    "key": "modeInstanceID",
    "value": "{modeInstanceID}"
  },
  {
    "key": "resourceArtifactID",
    "value": "{resourceArtifactID}"
  }
]
}

```

### XML example

```

<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF_FW</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>resourceArtifactID</key>
      <value>{resourceArtifactID}</value>
    </parameter>
  </input-params>
</operation-request>

```

## 1.38.3 Response

### JSON example

```

{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}

```

### XML example

```

<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>

```

## 1.39 Deploy VNF LB

### 1.39.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	true
vnf_group	true	true	true

### 1.39.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory
resourceArtifactID	Mandatory

#### JSON example

```
{
  "operation": "DEPLOY",
  "type": "INSTANCE",
  "subtype": "VNF_LB",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "resourceArtifactID",
      "value": "{resourceArtifactID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF_LB</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>resourceArtifactID</key>
      <value>{resourceArtifactID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.39.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
}
```

```
"finish-timestamp": null,  
"delivery-timestamp": "2015-07-31T07:51:46.789+0200",  
"output-params": []  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```



## 1.40 Diassociate Floating IP from Virtual Port

### 1.40.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.40.2 Request

Parameters:

input-param	condition
VirtualPortArtifactInstanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "DISASSOCIATE_FLOATINGIP",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_PORT",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "VirtualPortArtifactInstanceID",
      "value": "{VirtualPortArtifactInstanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DISASSOCIATE_FLOATINGIP</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_PORT</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>VirtualPortArtifactInstanceID</key>
      <value>{VirtualPortArtifactInstanceID}</value>
    </parameter>
    <parameter>
      <key> modeInstanceID</key>
      <value>{ modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.40.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
```

<start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>

</operation-response>

## 1.41 Async Get Console of Virtual Machine

### 1.41.1 Scopes

scope	trackable	retryable	rollbackable
vnf_group	false	false	false

### 1.41.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "GET_CONSOLE",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_MACHINE",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>GET_CONSOLE</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_MACHINE</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.41.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">
  <code>200</code>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
```

<start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>

</operation-response>

## 1.42 Sync Get Console of Virtual Machine

### 1.42.1 Scopes

scope	trackable	retryable	rollbackable
<b>vnf_group</b>	<b>false</b>	<b>false</b>	<b>false</b>

### 1.42.2 Request

Parameters:

input-param	condition
<b>modeInstanceID</b>	<b>Mandatory</b>
<b>instanceID</b>	<b>Mandatory</b>

#### JSON example

```
{
  "operation": "GET_CONSOLE",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_MACHINE",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>GET_CONSOLE</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_MACHINE</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key> instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key> modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.42.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

&lt;/operation-response&gt;

## 1.43 Heal VNF

### 1.43.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.43.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory
healCause	Mandatory

#### JSON example

```
{
  "operation": "HEAL",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "healCause",
      "value": "{healCause}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>DEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>healCause</key>
      <value>{healCause}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.43.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
}
```

```
"finish-timestamp": "2015-07-31T07:51:46.893+0200",  
"delivery-timestamp": "2015-07-31T07:51:46.789+0200"
```

```
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.44 Async Migrated VM

### 1.44.1 Scopes

scope	trackable	retryable	rollbackable
<b>vnf_group</b>	<b>true</b>	<b>false</b>	<b>false</b>
<b>nfvd</b>	<b>true</b>	<b>false</b>	<b>false</b>

### 1.44.2 Request

Parameters:

input-param	condition
<b>modeInstanceID</b>	<b>Mandatory</b>
<b>resourcePool</b>	<b>Mandatory</b>
<b>instanceID</b>	<b>Mandatory</b>

#### JSON example

```
{
  "operation": "MIGRATED",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_MACHINE",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "resourcePool",
      "value": "{resourcePool}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>MIGRATED</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_MACHINE</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>resourcePool</key>
      <value>{resourcePool}</value>
    </parameter>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.44.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
}
```

```
"finish-timestamp": null,  
"delivery-timestamp": "2015-07-31T07:51:46.789+0200",  
"output-params": []  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.45 Sync Migrated VM

### 1.45.1 Scopes

scope	trackable	retryable	rollbackable
vnf_group	true	false	false
nfvd	true	false	false

### 1.45.2 Request

Parameters:

input-param	condition
modeInstanceID	Mandatory
virtualMachineArtifactInstanceID	Mandatory

#### JSON example

```
{
  "operation": "MIGRATED",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_MACHINE",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "virtualMachineArtifactInstanceID",
      "value": "{virtualMachineArtifactInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>MIGRATED</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_MACHINE</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key> modeInstanceID </key>
      <value>{modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>virtualMachineArtifactInstanceID</key>
      <value>{virtualMachineArtifactInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.45.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
```



<start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>

</operation-response>

## 1.46 Sync Live Migrate VM

### 1.46.1 Scopes

scope	trackable	retryable	rollbackable
vnf_group	true	false	false

### 1.46.2 Request

Parameters:

input-param	condition
modeInstanceID	Mandatory
instanceID	Mandatory

#### JSON example

```
{
  "operation": "LIVE_MIGRATE",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_MACHINE",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>LIVE_MIGRATE</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_MACHINE</subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key> instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key> modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.46.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

#### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.47 Async Live Migrate of VM

### 1.47.1 Scopes

scope	trackable	retryable	rollbackable
vnf_group	true	false	false

### 1.47.2 Request

Parameters:

input-param	condition
modeInstanceID	Mandatory
resourcePool	Mandatory
instanceID	Mandatory

#### JSON example

```
{
  "operation": "LIVE_MIGRATE",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_MACHINE",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "resourcePool",
      "value": "{resourcePool}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>LIVE_MIGRATE</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_MACHINE</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>resourcePool</key>
      <value>{resourcePool}</value>
    </parameter>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.47.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
}
```

```
"output-params": []  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.48 Scale Down VNF

### 1.48.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.48.2 Request

Parameters:

input-param	condition
modeInstanceID	Mandatory
resourcePool	Mandatory
instanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_DOWN",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    },
    {
      "key": "resourcePool",
      "value": "{resourcePool}"
    },
    {
      "key": "instanceID",
      "value": "{instanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_DOWN</operation>
  <type>INSTANCE</type>
  <subtype>VNF</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
    <parameter>
      <key>resourcePool</key>
      <value>{resourcePool}</value>
    </parameter>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.48.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
}
```

```
"start-timestamp": null,  
"finish-timestamp": null,  
"delivery-timestamp": "2015-07-31T07:51:46.789+0200",  
"output-params": []  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.49 Sync Scale Down VNF

### 1.49.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.49.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_DOWN",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_DOWN</operation>
  <type>INSTANCE</type>
  <subtype>VNF </subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.49.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.50 Async Scale In VNF

### 1.50.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.50.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_IN",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_IN</operation>
  <type>INSTANCE</type>
  <subtype>VNF </subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.50.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```



}

**XML example**

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.51 Sync Scale In VNF

### 1.51.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.51.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_IN",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_IN</operation>
  <type>INSTANCE</type>
  <subtype>VNF </subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.51.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.52 Async Scale Out VNF

### 1.52.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.52.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_OUT",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_OUT</operation>
  <type>INSTANCE</type>
  <subtype>VNF </subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.52.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

}

**XML example**

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.53 Sync Scale Out VNF

### 1.53.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.53.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_OUT",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_OUT</operation>
  <type>INSTANCE</type>
  <subtype>VNF </subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.53.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">
  <code>200</code>
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>
  <description>Operation finished successfully</description>
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>
</operation-response>
```

## 1.54 Async Scale Up VNF

### 1.54.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.54.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_UP",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_UP</operation>
  <type>INSTANCE</type>
  <subtype>VNF </subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.54.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```



}

**XML example**

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.55 Sync Scale Up VNF

### 1.55.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.55.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_UP",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_UP</operation>
  <type>INSTANCE</type>
  <subtype>VNF </subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.55.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.56 Async Scale In VNF\_COMPONENT

### 1.56.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.56.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_IN",
  "type": "INSTANCE",
  "subtype": "VNF_COMPONENT",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_IN</operation>
  <type>INSTANCE</type>
  <subtype>VNF_COMPONENT </subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.56.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
}
```

```
"output-params": []  
}
```

### XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.57 Sync Scale In VNF\_COMPONENT

### 1.57.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.57.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_IN",
  "type": "INSTANCE",
  "subtype": "VNF_COMPONENT",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_IN</operation>
  <type>INSTANCE</type>
  <subtype>VNF_COMPONENT </subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.57.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.58 Async Scale Out VNF\_COMPONENT

### 1.58.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.58.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_OUT",
  "type": "INSTANCE",
  "subtype": "VNF_COMPONENT",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_OUT</operation>
  <type>INSTANCE</type>
  <subtype>VNF_COMPONENT </subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.58.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```



}

**XML example**

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.59 Sync Scale Out VNF\_COMPONENT

### 1.59.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false
nfvd	true	false	false

### 1.59.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "SCALE_OUT",
  "type": "INSTANCE",
  "subtype": "VNF_COMPONENT",
  "communication-type": "SYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>SCALE_OUT</operation>
  <type>INSTANCE</type>
  <subtype>VNF_COMPONENT </subtype>
  <communication-type>SYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.59.3 Response

#### JSON example

```
{
  "code": 200,
  "description": "Operation finished successfully",
  "start-timestamp": "2015-07-31T07:51:46.784+0200",
  "finish-timestamp": "2015-07-31T07:51:46.893+0200",
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200"
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd-ext">  
  <code>200</code>  
  <delivery-timestamp>2015-07-31T07:50:29.328+0200</delivery-timestamp>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.60 Start Virtual Machine

### 1.60.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.60.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "START",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_MACHINE",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>START</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_MACHINE </subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.60.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.61 Stop Virtual Machine

### 1.61.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	false	false
vnf_group	true	false	false

### 1.61.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "STOP",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_MACHINE",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>STOP</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_MACHINE </subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.61.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.62 Undeploy Network Service

### 1.62.1 Scopes

scope	trackable	retryable	rollbackable
domain	true	true	true
organization	true	true	true
tenant	true	true	true

### 1.62.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "UNDEPLOY",
  "type": "INSTANCE",
  "subtype": "NETWORK_SERVICE",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>UNDEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>NETWORK_SERVICE</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.62.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```



## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.63 Undeploy Organization

### 1.63.1 Scopes

scope	trackable	retryable	rollbackable
domain	true	true	false

### 1.63.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "UNDEPLOY",
  "type": "INSTANCE",
  "subtype": "ORGANIZATION",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>UNDEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>ORGANIZATION</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.63.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.64 Undeploy Tenant

### 1.64.1 Scopes

scope	trackable	retryable	rollbackable
<b>organization</b>	<b>true</b>	<b>true</b>	<b>false</b>

### 1.64.2 Request

Parameters:

input-param	condition
<b>instanceID</b>	<b>Mandatory</b>
<b>modeInstanceID</b>	<b>Mandatory</b>

#### JSON example

```
{
  "operation": "UNDEPLOY",
  "type": "INSTANCE",
  "subtype": "TENANT",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>UNDEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>TENANT</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.64.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.65 Undeploy Virtual Link

### 1.65.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	false

### 1.65.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "UNDEPLOY",
  "type": "INSTANCE",
  "subtype": "VIRTUAL_LINK",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>UNDEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VIRTUAL_LINK</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.65.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.66 Undeploy VNF

### 1.66.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	false
vnf_group	true	true	false

### 1.66.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "UNDEPLOY",
  "type": "INSTANCE",
  "subtype": "VNF",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>UNDEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.66.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```



## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.67 Undeploy FW

### 1.67.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	false
vnf_group	true	true	false

### 1.67.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "UNDEPLOY",
  "type": "INSTANCE",
  "subtype": "VNF_FW",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>UNDEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF_FW</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.67.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.68 Undeploy VNF Group

### 1.68.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	false

### 1.68.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "UNDEPLOY",
  "type": "INSTANCE",
  "subtype": "VNF_GROUP",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>UNDEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF_GROUP</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.68.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```

## 1.69 Undeploy LB

### 1.69.1 Scopes

scope	trackable	retryable	rollbackable
tenant	true	true	false
vnf_group	true	true	false

### 1.69.2 Request

Parameters:

input-param	condition
instanceID	Mandatory
modeInstanceID	Mandatory

#### JSON example

```
{
  "operation": "UNDEPLOY",
  "type": "INSTANCE",
  "subtype": "VNF_LB",
  "communication-type": "ASYNC",
  "input-params":
  [
    {
      "key": "instanceID",
      "value": "{instanceID}"
    },
    {
      "key": "modeInstanceID",
      "value": "{modeInstanceID}"
    }
  ]
}
```

#### XML example

```
<operation-request xmlns="http://www.hp.com/nfvd">
  <operation>UNDEPLOY</operation>
  <type>INSTANCE</type>
  <subtype>VNF_LB</subtype>
  <communication-type>ASYNC</communication-type>
  <input-params>
    <parameter>
      <key>instanceID</key>
      <value>{instanceID}</value>
    </parameter>
    <parameter>
      <key>modeInstanceID</key>
      <value>{modeInstanceID}</value>
    </parameter>
  </input-params>
</operation-request>
```

### 1.69.3 Response

#### JSON example

```
{
  "code": 503,
  "description": "Asynchronous operation successfully launched",
  "id": "c60577ad-7881-4208-a0f5-35b7d99a6395",
  "start-timestamp": null,
  "finish-timestamp": null,
  "delivery-timestamp": "2015-07-31T07:51:46.789+0200",
  "output-params": []
}
```

## XML example

```
<operation-response xmlns="http://www.hp.com/nfvd">  
  <code>200</code>  
  <description>Operation finished successfully</description>  
  <finish-timestamp>2015-07-31T07:50:29.513+0200</finish-timestamp>  
  <start-timestamp>2015-07-31T07:50:29.323+0200</start-timestamp>  
</operation-response>
```