

## **Advanced: Resource paths and operations**

### 5.4.2 Resource: VNF instances

#### 5.4.2.1 Description

This resource represents VNF instances. The client can use this resource to create individual VNF instance resources, and to query VNF instances.

#### 5.4.2.2 Resource definition

The resource URI is:

**/vnfcm/v1/vnf\_instances**

#### 5.4.2.3 Resource methods

##### 5.4.2.3.1 POST

The POST method creates a new VNF instance resource.

This method shall follow the provisions specified in the table 5.4.2.3.1-2 for URI query parameters, request and response data structures, and response codes.

**Table 5.4.2.3.1-2: Details of the POST request/response on this resource**

Request body	Data type	Cardinality	Description	
	CreateVnfRequest	1	The VNF creation parameters, as defined in clause 5.5.2.3	
Response body	Data type	Cardinality	Response Codes	Description
	VnfInstance	1	201 Created	A VNF Instance identifier was created successfully.  The response body shall contain a representation of the created VNF instance, as defined in clause 5.5.2.2.  The HTTP response shall include a "Location" HTTP header that contains the resource URI of the created VNF instance.
	ProblemDetails	1	400 Bad Request	An error was present in the client request. The ProblemDetails objects contains information regarding the error.
	ProblemDetails	1	500 Internal error	The server encountered an unexpected condition which prevented it from fulfilling the request.

## **Advanced: Data types**

### 4.3.5.3 Type: ProblemDetails

The definition of the general "ProblemDetails" data structure from IETF RFC 7807 [17] is reproduced in table 4.3.5.3-1. It is possible that particular APIs in the present document, or particular implementations, define extensions to define additional attributes that provide more information about the error.

**Table 4.3.5.3-1: Definition of the ProblemDetails data type**

Attribute name	Data type	Cardinality	Description
status	Integer	1	The HTTP status code for this occurrence of the problem.
detail	String	1	A human-readable explanation specific to this occurrence of the problem.
instance	URI	0..1	A URI reference that identifies the specific occurrence of the problem.
type	URI	0..1	A URI reference that identifies the problem type.
title	String	0..1	A short, human-readable summary of the problem type.

## 5.5.2 Resource and notification data types

### 5.5.2.2 Type: VnfInstance

This type represents a VNF instance. It shall comply with the provisions defined in table 5.5.2.2-1.

Table 5.5.2.2-1: Definition of the VnfInstance data type

Attribute name	Data type	Cardinality	Description
Id	Identifier	1	Identifier of the VNF instance.
vnfInstanceName	String	0..1	Name of the VNF instance. This attribute can be modified with the PATCH method.
vnfdId	Identifier	1	Identifier of the VNFD on which the VNF instance is based.
vnfSoftwareVersion	Version	1	Software version of the VNF.
vnfInstanceDescription	String	0..1	Human-readable description of the VNF instance. This attribute can be modified with the PATCH method.
vnfProvider	String	1	Provider of the VNF and the VNFD.
vnfProductName	String	1	Name to identify the VNF Product.

### 5.5.2.3 Type: CreateVnfRequest

This type represents a request parameters for the "Create VNF identifier" operation. It shall comply with the provisions defined in table 5.5.2.3-1.

**Table 5.5.2.3-1: Definition of the CreateVnfRequest data type**

Attribute name	Data type	Cardinality	Description
vnfdId	Identifier	1	Identifier that identifies the VNFD which defines the VNF instance to be created.
vnfInstanceName	String	0..1	Human-readable name of the VNF instance to be created.
vnfInstanceDescription	String	0..1	Human-readable description of the VNF instance to be created.