

SOL003 - VNF Lifecycle Management Notification interface

Overview

SOL003 - VNF Lifecycle Management Notification interface IMPORTANT: Please note that this file might be not aligned to the current version of the ETSI Group Specification it refers to. In case of discrepancies the published ETSI Group Specification takes precedence. Please report bugs to <https://forge.etsi.org/rep/nfv/SOL002-SOL003/issues>

Version information

Version : 1.5.0-impl:etsi.org:ETSI_NFV_OpenAPI:1

License information

License : ETSI Forge copyright notice

License URL : <https://forge.etsi.org/etsi-forge-copyright-notice.txt>

Terms of service : null

URI scheme

BasePath : /callback/v1

Schemes : HTTPS

Consumes

- `application/json`

Produces

- `application/json`

External Docs

Description : ETSI GS NFV-SOL 003 V2.8.1

URL : https://www.etsi.org/deliver/etsi_gs/NFV-SOL/001_099/003/02.08.01_60/gs_NFV-SOL003v020801p.pdf

Paths

POST

/URI_is_provided_by_the_client_when_creating_the_subscription-VnfIdentifierCreationNotification

Description

Notify. The POST method delivers a notification from the API producer to an API consumer. The API consumer shall have previously created an "Individual subscription" resource with a matching filter. This method shall follow the provisions specified in the tables 5.4.20.3.1-1 and 5.4.20.3.1-2 for URI query parameters, request and response data structures, and response codes.

Parameters

Type	Name	Description	Schema
Header	Authorization <i>optional</i>	The authorization token for the request. Reference: IETF RFC 7235	string
Header	Content-Type <i>required</i>	The MIME type of the body of the request. Reference: IETF RFC 7231	string
Header	Version <i>required</i>	Version of the API requested to use when responding to this request.	string
Body	VnfIdentifierCreationNotification <i>required</i>	A notification about the creation of a VNF identifier and the related "Individual VNF instance" resource.	VnfIdentifierCreationNotification

VnfIdentifierCreationNotification

Name	Description	Schema
_links <i>required</i>	This type represents the links to resources that a notification can contain.	_links
id <i>required</i>	An identifier with the intention of being globally unique.	string
notificationType <i>required</i>	Discriminator for the different notification types. Shall be set to "VnfIdentifierCreationNotification" for this notification type.	enum (VnfIdentifierCreationNotification)

Name	Description	Schema
subscriptionId <i>required</i>	An identifier with the intention of being globally unique.	string
timeStamp <i>required</i>	Date-time stamp. Representation: String formatted according to IETF RFC 3339.	string (date-time)
vnfInstanceId <i>required</i>	An identifier with the intention of being globally unique.	string

links

Name	Description	Schema
subscription <i>required</i>	This type represents a link to a resource in a notification, using an absolute or relative URI.	subscription
vnfInstance <i>required</i>	This type represents a link to a resource in a notification, using an absolute or relative URI.	vnfInstance
vnfLcmOpOcc <i>optional</i>	This type represents a link to a resource in a notification, using an absolute or relative URI.	vnfLcmOpOcc

subscription

Name	Description	Schema
href <i>required</i>	String formatted according to IETF RFC 3986.	string

vnfInstance

Name	Description	Schema
href <i>required</i>	String formatted according to IETF RFC 3986.	string

vnfLcmOpOcc

Name	Description	Schema
href <i>required</i>	String formatted according to IETF RFC 3986.	string

Responses

HTTP Code	Description	Schema
204	<p>204 NO CONTENT Shall be returned when the notification has been delivered successfully.</p> <p>Headers :</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	No Content

HTTP Code	Description	Schema
400	<p>400 BAD REQUEST 400 code can be returned in the following specified cases, the specific cause has to be proper specified in the "ProblemDetails" structure to be returned. If the request is malformed or syntactically incorrect (e.g. if the request URI contains incorrect query parameters or the payload body contains a syntactically incorrect data structure), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If the response to a GET request which queries a container resource would be so big that the performance of the API producer is adversely affected, and the API producer does not support paging for the affected resource, it shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If there is an application error related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem. If the request contains a malformed access token, the API producer should respond with this response. The details of the error shall be returned in the WWW Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided. The use of this HTTP error response code described above is applicable to the use of the OAuth 2.0 for the authorization of API requests and notifications, as defined in clauses 4.5.3.3 and 4.5.3.4.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 400</p>

HTTP Code	Description	Schema
401	<p>401 UNAUTHORIZED If the request contains no access token even though one is required, or if the request contains an authorization token that is invalid (e.g. expired or revoked), the API producer should respond with this response. The details of the error shall be returned in the WWW-Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 401</p>
403	<p>403 FORBIDDEN If the API consumer is not allowed to perform a particular request to a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided. It should include in the "detail" attribute information about the source of the problem, and may indicate how to solve it.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 403</p>
405	<p>405 METHOD NOT ALLOWED If a particular HTTP method is not supported for a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 405</p>

HTTP Code	Description	Schema
406	<p>406 NOT ACCEPTABLE If the "Accept" HTTP header does not contain at least one name of a content type that is acceptable to the API producer, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 406</p>
500	<p>500 INTERNAL SERVER ERROR If there is an application error not related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 500</p>
503	<p>503 SERVICE UNAVAILABLE If the API producer encounters an internal overload situation of itself or of a system it relies on, it should respond with this response code, following the provisions in IETF RFC 7231 for the use of the "Retry-After" HTTP header and for the alternative to refuse the connection. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 503</p>

Response 400

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 401

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 403

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 405

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 406

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string

Name	Description	Schema
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 500

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 503

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

GET

/URI_is_provided_by_the_client_when_creating_the_subscription-VnfIdentifierCreationNotification

Description

The GET method allows the API producer to test the notification endpoint that is provided by the API consumer, e.g. during subscription. This method shall follow the provisions specified in the tables 5.4.20.3.2-1 and 5.4.20.3.2-2 for URI query parameters, request and response data structures, and response codes.

Parameters

Type	Name	Description	Schema
Header	Authorization <i>optional</i>	The authorization token for the request. Reference: IETF RFC 7235	string
Header	Version <i>required</i>	Version of the API requested to use when responding to this request.	string

Responses

HTTP Code	Description	Schema
204	204 NO CONTENT Shall be returned to indicate that the notification endpoint has been tested successfully. The response body shall be empty. Headers : WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token. Version (string) : Version of the API used in the response.	No Content

HTTP Code	Description	Schema
400	<p>400 BAD REQUEST 400 code can be returned in the following specified cases, the specific cause has to be proper specified in the "ProblemDetails" structure to be returned. If the request is malformed or syntactically incorrect (e.g. if the request URI contains incorrect query parameters or the payload body contains a syntactically incorrect data structure), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If the response to a GET request which queries a container resource would be so big that the performance of the API producer is adversely affected, and the API producer does not support paging for the affected resource, it shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If there is an application error related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem. If the request contains a malformed access token, the API producer should respond with this response. The details of the error shall be returned in the WWW Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided. The use of this HTTP error response code described above is applicable to the use of the OAuth 2.0 for the authorization of API requests and notifications, as defined in clauses 4.5.3.3 and 4.5.3.4.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 400</p>

HTTP Code	Description	Schema
401	<p>401 UNAUTHORIZED If the request contains no access token even though one is required, or if the request contains an authorization token that is invalid (e.g. expired or revoked), the API producer should respond with this response. The details of the error shall be returned in the WWW-Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 401</p>
403	<p>403 FORBIDDEN If the API consumer is not allowed to perform a particular request to a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided. It should include in the "detail" attribute information about the source of the problem, and may indicate how to solve it.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 403</p>
405	<p>405 METHOD NOT ALLOWED If a particular HTTP method is not supported for a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 405</p>

HTTP Code	Description	Schema
406	<p>406 NOT ACCEPTABLE If the "Accept" HTTP header does not contain at least one name of a content type that is acceptable to the API producer, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 406</p>
500	<p>500 INTERNAL SERVER ERROR If there is an application error not related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 500</p>
503	<p>503 SERVICE UNAVAILABLE If the API producer encounters an internal overload situation of itself or of a system it relies on, it should respond with this response code, following the provisions in IETF RFC 7231 for the use of the "Retry-After" HTTP header and for the alternative to refuse the connection. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 503</p>

Response 400

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 401

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 403

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 405

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 406

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string

Name	Description	Schema
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 500

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 503

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

POST

/URI_is_provided_by_the_client_when_creating_the_subscription-VnfIdentifierDeletionNotification

Description

Notify. The POST method delivers a notification from the API producer to an API consumer. The API consumer shall have previously created an "Individual subscription" resource with a matching filter. This method shall follow the provisions specified in the tables 5.4.20.3.1-1 and 5.4.20.3.1-2 for URI query parameters, request and response data structures, and response codes.

Parameters

Type	Name	Description	Schema
Header	Authorization <i>optional</i>	The authorization token for the request. Reference: IETF RFC 7235	string
Header	Content-Type <i>required</i>	The MIME type of the body of the request. Reference: IETF RFC 7231	string
Header	Version <i>required</i>	Version of the API requested to use when responding to this request.	string
Body	VnfIdentifierDeletionNotification <i>required</i>	A notification about the deletion of a VNF identifier and the related "Individual VNF instance" resource.	VnfIdentifierDeletionNotification

VnfIdentifierDeletionNotification

Name	Description	Schema
_links <i>required</i>	This type represents the links to resources that a notification can contain.	_links

Name	Description	Schema
id <i>required</i>	An identifier with the intention of being globally unique.	string
notificationType <i>required</i>	Discriminator for the different notification types. Shall be set to "VnfIdentifierDeletionNotification" for this notification type.	enum (VnfIdentifierDeletionNotification)
subscriptionId <i>required</i>	An identifier with the intention of being globally unique.	string
timeStamp <i>required</i>	Date-time stamp. Representation: String formatted according to IETF RFC 3339.	string (date-time)
vnfInstanceId <i>required</i>	An identifier with the intention of being globally unique.	string

links

Name	Description	Schema
subscription <i>required</i>	This type represents a link to a resource in a notification, using an absolute or relative URI.	subscription
vnfInstance <i>required</i>	This type represents a link to a resource in a notification, using an absolute or relative URI.	vnfInstance
vnfLcmOpOcc <i>optional</i>	This type represents a link to a resource in a notification, using an absolute or relative URI.	vnfLcmOpOcc

subscription

Name	Description	Schema
href <i>required</i>	String formatted according to IETF RFC 3986.	string

vnfInstance

Name	Description	Schema
href <i>required</i>	String formatted according to IETF RFC 3986.	string

vnfLcmOpOcc

Name	Description	Schema
href <i>required</i>	String formatted according to IETF RFC 3986.	string

Responses

HTTP Code	Description	Schema
204	<p>204 NO CONTENT Shall be returned when the notification has been delivered successfully.</p> <p>Headers :</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	No Content

HTTP Code	Description	Schema
400	<p>400 BAD REQUEST 400 code can be returned in the following specified cases, the specific cause has to be proper specified in the "ProblemDetails" structure to be returned. If the request is malformed or syntactically incorrect (e.g. if the request URI contains incorrect query parameters or the payload body contains a syntactically incorrect data structure), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If the response to a GET request which queries a container resource would be so big that the performance of the API producer is adversely affected, and the API producer does not support paging for the affected resource, it shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If there is an application error related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem. If the request contains a malformed access token, the API producer should respond with this response. The details of the error shall be returned in the WWW Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided. The use of this HTTP error response code described above is applicable to the use of the OAuth 2.0 for the authorization of API requests and notifications, as defined in clauses 4.5.3.3 and 4.5.3.4.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 400</p>

HTTP Code	Description	Schema
401	<p>401 UNAUTHORIZED If the request contains no access token even though one is required, or if the request contains an authorization token that is invalid (e.g. expired or revoked), the API producer should respond with this response. The details of the error shall be returned in the WWW-Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 401</p>
403	<p>403 FORBIDDEN If the API consumer is not allowed to perform a particular request to a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided. It should include in the "detail" attribute information about the source of the problem, and may indicate how to solve it.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 403</p>
405	<p>405 METHOD NOT ALLOWED If a particular HTTP method is not supported for a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 405</p>

HTTP Code	Description	Schema
406	<p>406 NOT ACCEPTABLE If the "Accept" HTTP header does not contain at least one name of a content type that is acceptable to the API producer, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 406</p>
500	<p>500 INTERNAL SERVER ERROR If there is an application error not related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 500</p>
503	<p>503 SERVICE UNAVAILABLE If the API producer encounters an internal overload situation of itself or of a system it relies on, it should respond with this response code, following the provisions in IETF RFC 7231 for the use of the "Retry-After" HTTP header and for the alternative to refuse the connection. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 503</p>

Response 400

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 401

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 403

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 405

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 406

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string

Name	Description	Schema
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 500

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 503

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

GET

/URI_is_provided_by_the_client_when_creating_the_subscription-VnfIdentifierDeletionNotification

Description

The GET method allows the API producer to test the notification endpoint that is provided by the API consumer, e.g. during subscription. This method shall follow the provisions specified in the tables 5.4.20.3.2-1 and 5.4.20.3.2-2 for URI query parameters, request and response data structures, and response codes.

Parameters

Type	Name	Description	Schema
Header	Authorization <i>optional</i>	The authorization token for the request. Reference: IETF RFC 7235	string
Header	Version <i>required</i>	Version of the API requested to use when responding to this request.	string

Responses

HTTP Code	Description	Schema
204	204 NO CONTENT Shall be returned to indicate that the notification endpoint has been tested successfully. The response body shall be empty. Headers : WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token. Version (string) : Version of the API used in the response.	No Content

HTTP Code	Description	Schema
400	<p>400 BAD REQUEST 400 code can be returned in the following specified cases, the specific cause has to be proper specified in the "ProblemDetails" structure to be returned. If the request is malformed or syntactically incorrect (e.g. if the request URI contains incorrect query parameters or the payload body contains a syntactically incorrect data structure), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If the response to a GET request which queries a container resource would be so big that the performance of the API producer is adversely affected, and the API producer does not support paging for the affected resource, it shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If there is an application error related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem. If the request contains a malformed access token, the API producer should respond with this response. The details of the error shall be returned in the WWW Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided. The use of this HTTP error response code described above is applicable to the use of the OAuth 2.0 for the authorization of API requests and notifications, as defined in clauses 4.5.3.3 and 4.5.3.4.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 400</p>

HTTP Code	Description	Schema
401	<p>401 UNAUTHORIZED If the request contains no access token even though one is required, or if the request contains an authorization token that is invalid (e.g. expired or revoked), the API producer should respond with this response. The details of the error shall be returned in the WWW-Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 401</p>
403	<p>403 FORBIDDEN If the API consumer is not allowed to perform a particular request to a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided. It should include in the "detail" attribute information about the source of the problem, and may indicate how to solve it.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 403</p>
405	<p>405 METHOD NOT ALLOWED If a particular HTTP method is not supported for a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 405</p>

HTTP Code	Description	Schema
406	<p>406 NOT ACCEPTABLE If the "Accept" HTTP header does not contain at least one name of a content type that is acceptable to the API producer, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	Response 406
500	<p>500 INTERNAL SERVER ERROR If there is an application error not related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	Response 500
503	<p>503 SERVICE UNAVAILABLE If the API producer encounters an internal overload situation of itself or of a system it relies on, it should respond with this response code, following the provisions in IETF RFC 7231 for the use of the "Retry-After" HTTP header and for the alternative to refuse the connection. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	Response 503

Response 400

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 401

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 403

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 405

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 406

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string

Name	Description	Schema
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 500

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 503

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

POST

/URI_is_provided_by_the_client_when_creating_the_subscription-VnfLcmOperationOccurrenceNotification

Description

Notify. The POST method delivers a notification from the API producer to an API consumer. The API consumer shall have previously created an "Individual subscription" resource with a matching filter. This method shall follow the provisions specified in the tables 5.4.20.3.1-1 and 5.4.20.3.1-2 for URI query parameters, request and response data structures, and response codes.

Parameters

Type	Name	Description	Schema
Header	Authorization <i>optional</i>	The authorization token for the request. Reference: IETF RFC 7235	string
Header	Content-Type <i>required</i>	The MIME type of the body of the request. Reference: IETF RFC 7231	string
Header	Version <i>required</i>	Version of the API requested to use when responding to this request.	string
Body	VnfLcmOperationOccurrenceNotification <i>required</i>	A notification about lifecycle changes triggered by a VNF LCM operation occurrence..	VnfLcmOperationOccurrenceNotification

VnfLcmOperationOccurrenceNotification

Name	Description	Schema
_links <i>required</i>	This type represents the links to resources that a notification can contain.	_links

Name	Description	Schema
affectedExtLinkPorts <i>optional</i>	<p>Information about external VNF link ports that were affected during the lifecycle operation. See note 1. NOTE 1: Shall be present if the "notificationStatus" is set to "RESULT" and the operation has performed any resource modification. Shall be absent otherwise. This attribute contains information about the cumulative changes to virtualised resources that were performed so far by the VNF LCM operation occurrence and by any of the error handling procedures for that operation occurrence.</p>	< affectedExtLinkPorts > array
affectedVirtualLinks <i>optional</i>	<p>Information about VL instances that were affected during the lifecycle operation. NOTE 1: Shall be present if the "notificationStatus" is set to "RESULT" and the operation has performed any resource modification. Shall be absent otherwise. This attribute contains information about the cumulative changes to virtualised resources that were performed so far by the VNF LCM operation occurrence and by any of the error handling procedures for that operation occurrence. NOTE 2: For a particular affected VL, there shall be as many "AffectedVirtualLink" entries as needed for signalling the different types of changes, i.e., one per virtual link and change type. For instance, in the case of signaling affected VL instances involving the addition of a particular VL instance with links ports, one "AffectedVirtualLink" entry signals the addition of the VL by using the "changeType" attribute of "AffectedVirtualLink" structure equal to "ADDED", and another "AffectedVirtualLink" entry signals the addition of externally visible VNF link ports of the VL by using the "changeType" equal to "LINK_PORT_ADDED".</p>	< affectedVirtualLinks > array
affectedVirtualStorages <i>optional</i>	<p>Information about virtualised storage instances that were affected during the lifecycle operation. Shall be present if the "notificationStatus" is set to "RESULT" and the operation has performed any resource modification. Shall be absent otherwise. This attribute contains information about the cumulative changes to virtualised resources that were performed so far by the VNF LCM operation occurrence and by any of the error handling procedures for that operation occurrence.</p>	< affectedVirtualStorages > array

Name	Description	Schema
affectedVnfcs <i>optional</i>	<p>Information about VNFC instances that were affected during the lifecycle operation. Shall be present if the "notificationStatus" is set to "RESULT" and the operation has performed any resource modification. Shall be absent otherwise. This attribute contains information about the cumulative changes to virtualised resources that were performed so far by the VNF LCM operation occurrence and by any of the error handling procedures for that operation occurrence.</p>	<p>< affectedVnfcs > array</p>
changedExtConnectivity <i>optional</i>	<p>Information about changed external connectivity, if this notification represents the result of a lifecycle operation occurrence. Shall be present if the "notificationStatus" is set to "RESULT" and the "operation" has made any changes to the external connectivity of the VNF instance. Shall be absent otherwise. Only information about external VL instances that have been added or modified shall be provided.</p>	<p>< changedExtConnectivity > array</p>
changedInfo <i>optional</i>	<p>This type represents attribute modifications that were performed on an "Individual VNF instance" resource. The attributes that can be included consist of those requested to be modified explicitly in the "VnfInfoModificationRequest" data structure, and additional attributes of the "VnfInstance" data structure that were modified implicitly e.g. when modifying the referenced VNF package.</p>	<p>changedInfo</p>
error <i>optional</i>	<p>The definition of the general "ProblemDetails" data structure from IETF RFC 7807 [19] is reproduced in this structure. Compared to the general framework defined in IETF RFC 7807 [19], the "status" and "detail" attributes are mandated to be included by the present document, to ensure that the response contains additional textual information about an error. IETF RFC 7807 [19] foresees extensibility of the "ProblemDetails" type. 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. The description column only provides some explanation of the meaning to Facilitate understanding of the design. For a full description, see IETF RFC 7807 [19].</p>	<p>error</p>
id <i>required</i>	<p>An identifier with the intention of being globally unique.</p>	<p>string</p>

Name	Description	Schema
isAutomaticInvocation <i>required</i>	Set to true if this VNF LCM operation occurrence has been triggered by an automated procedure inside the VNFM (i.e. ScaleVnf / ScaleVnfToLevel triggered by auto-scale, or HealVnf triggered by auto-heal). Set to false otherwise.	boolean
notificationStatus <i>required</i>	Indicates whether this notification reports about the start of a lifecycle operation or the result of a lifecycle operation. Permitted values: * START: Informs about the start of the VNF LCM operation occurrence. * RESULT: Informs about the final or intermediate result of the VNF LCM operation occurrence.	enum (START, RESULT)
notificationType <i>required</i>	Discriminator for the different notification types. Shall be set to "VnfLcmOperationOccurrenceNotification" for this notification type.	enum (VnfLcmOperationOccurrenceNotification)
operation <i>required</i>	The enumeration LcmOpType defines the permitted values to represent VNF lifecycle operation types in VNF lifecycle management operation occurrence resources and VNF lifecycle management operation occurrence notifications. It shall comply with the provisions defined in table 5.5.4.5-1. Value Description — ———— INSTANTIATE Represents the "Instantiate VNF" LCM operation. SCALE Represents the "Scale VNF" LCM operation. SCALE_TO_LEVEL Represents the "Scale VNF to Level" LCM operation. CHANGE_FLAVOUR Represents the "Change VNF Flavour" LCM operation. TERMINATE Represents the "Terminate VNF" LCM operation. HEAL Represents the "Heal VNF" LCM operation. OPERATE Represents the "Operate VNF" LCM operation. CHANGE_EXT_CONN Represents the "Change external VNF connectivity" LCM operation. MODIFY_INFO Represents the "Modify VNF Information" LCM operation.	enum (INSTANTIATE, SCALE, SCALE_TO_LEVEL, CHANGE_FLAVOUR, TERMINATE, HEAL, OPERATE, CHANGE_EXT_CONN, MODIFY_INFO)

Name	Description	Schema
operationState <i>required</i>	STARTING: The LCM operation is starting. PROCESSING: The LCM operation is currently in execution. COMPLETED: The LCM operation has been completed successfully. FAILED_TEMP: The LCM operation has failed and execution has stopped, but the execution of the operation is not considered to be closed. FAILED: The LCM operation has failed and it cannot be retried or rolled back, as it is determined that such action won't succeed. ROLLING_BACK: The LCM operation is currently being rolled back. ROLLED_BACK: The LCM operation has been successfully rolled back, i.e. The state of the VNF prior to the original operation invocation has been restored as closely as possible.	enum (STARTING, PROCESSING, COMPLETED, FAILED_TEMP, FAILED, ROLLING_BACK, ROLLED_BACK)
subscriptionId <i>required</i>	An identifier with the intention of being globally unique.	string
timeStamp <i>required</i>	Date-time stamp. Representation: String formatted according to IETF RFC 3339.	string (date-time)
vnfInstanceId <i>required</i>	An identifier with the intention of being globally unique.	string
vnfLcmOpOccId <i>required</i>	An identifier with the intention of being globally unique.	string

links

Name	Description	Schema
subscription <i>required</i>	This type represents a link to a resource in a notification, using an absolute or relative URI.	subscription
vnfInstance <i>required</i>	This type represents a link to a resource in a notification, using an absolute or relative URI.	vnfInstance
vnfLcmOpOcc <i>optional</i>	This type represents a link to a resource in a notification, using an absolute or relative URI.	vnfLcmOpOcc

subscription

Name	Description	Schema
href <i>required</i>	String formatted according to IETF RFC 3986.	string

vnfInstance

Name	Description	Schema
href <i>required</i>	String formatted according to IETF RFC 3986.	string

vnfLcmOpOcc

Name	Description	Schema
href <i>required</i>	String formatted according to IETF RFC 3986.	string

affectedExtLinkPorts

Name	Description	Schema
changeType <i>required</i>	Signals the type of change. Permitted values: - ADDED - REMOVED	enum (ADDED, REMOVED)
extCpInstanceId <i>required</i>	An identifier that is unique for the respective type within a VNF instance, but may not be globally unique.	string
id <i>required</i>	An identifier that is unique for the respective type within a VNF instance, but may not be globally unique.	string
resourceDefinitionId <i>optional</i>	An identifier that is unique within a limited local scope other than above listed identifiers, such as within a complex data structure or within a request-response pair. Representation: string of variable length.	string
resourceHandle <i>required</i>	This type represents the information that allows addressing a virtualised resource that is used by a VNF instance. Information about the resource is available from the VIM.	resourceHandle

resourceHandle

Name	Description	Schema
resourceId <i>required</i>	An identifier maintained by the VIM or other resource provider. It is expected to be unique within the VIM instance.	string
resourceProviderId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimConnectionId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimLevelResourceType <i>optional</i>	The value set of the "vimLevelResourceType" attribute is within the scope of the VIM or the resource provider and can be used as information that complements the ResourceHandle. This value set is different from the value set of the "type" attribute in the ResourceDefinition (refer to clause 9.5.3.2 in SOL003).	string

affectedVirtualLinks

Name	Description	Schema
changeType <i>required</i>	Signals the type of change. Permitted values: * ADDED * REMOVED * MODIFIED * TEMPORARY * LINK_PORT_ADDED * LINK_PORT_REMOVED For a temporary resource, an AffectedVirtualLink structure exists as long as the temporary resource exists. NOTE 1: When signalling the addition (LINK_PORT_ADDED) or removal (LINK_PORT_REMOVED) of VNF link ports, the "networkResource" and "resourceDefinitionId" attributes refer to the affected virtual link instance, not the link port instance. The resource handles of the affected VNF link ports can be found by dereferencing the identifiers in the "vnfLinkPortIds" attribute.	enum (ADDED, REMOVED, MODIFIED, TEMPORARY, LINK_PORT_ADDED, LINK_PORT_REMOVED)
id <i>required</i>	An identifier that is unique for the respective type within a VNF instance, but may not be globally unique.	string

Name	Description	Schema
metadata <i>optional</i>	This type represents a list of key-value pairs. The order of the pairs in the list is not significant. In JSON, a set of keyvalue pairs is represented as an object. It shall comply with the provisions defined in clause 4 of IETF RFC 8259. In the following example, a list of key-value pairs with four keys ("aString", "aNumber", "anArray" and "anObject") is provided to illustrate that the values associated with different keys can be of different type.	object
networkResource <i>required</i>	This type represents the information that allows addressing a virtualised resource that is used by a VNF instance. Information about the resource is available from the VIM.	networkResource
resourceDefinitionId <i>optional</i>	An identifier that is unique within a limited local scope other than above listed identifiers, such as within a complex data structure or within a request-response pair. Representation: string of variable length.	string
vnfLinkPorts <i>optional</i>	Identifiers of the link ports of the affected VL related to the change. Each identifier references a "VnfLinkPortInfo" structure. Shall be set when changeType is equal to "LINK_PORT_ADDED" or "LINK_PORT_REMOVED", and the related "VnfLinkPortInfo" structures are present (case "added") or have been present (case "removed") in the "VnfVirtualLinkResourceInfo" or "ExtManagedVirtualLinkInfo" structures that are represented by the "vnfVirtualLinkResource-Info" or "extManagedVirtualLinkInfo" attribute in the "VnfInstance" structure. See note 1. NOTE 1: When signalling the addition (LINK_PORT_ADDED) or removal (LINK_PORT_REMOVED) of VNF link ports, the "networkResource" and "resourceDefinitionId" attributes refer to the affected virtual link instance, not the link port instance. The resource handles of the affected VNF link ports can be found by dereferencing the identifiers in the "vnfLinkPorts" attribute.	< string > array
vnfVirtualLinkDescId <i>required</i>	An identifier that is unique within a VNF descriptor.	string
zoneId <i>optional</i>	An identifier with the intention of being globally unique.	string

networkResource

Name	Description	Schema
resourceId <i>required</i>	An identifier maintained by the VIM or other resource provider. It is expected to be unique within the VIM instance.	string
resourceProviderId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimConnectionId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimLevelResourceType <i>optional</i>	The value set of the "vimLevelResourceType" attribute is within the scope of the VIM or the resource provider and can be used as information that complements the ResourceHandle. This value set is different from the value set of the "type" attribute in the ResourceDefinition (refer to clause 9.5.3.2 in SOL003).	string

affectedVirtualStorages

Name	Description	Schema
changeType <i>required</i>	Signals the type of change. Permitted values: * ADDED * REMOVED * MODIFIED * TEMPORARY For a temporary resource, an AffectedVirtualStorage structure exists as long as the temporary resource exists.	enum (ADDED, REMOVED, MODIFIED, TEMPORARY)
id <i>required</i>	An identifier that is unique for the respective type within a VNF instance, but may not be globally unique.	string
metadata <i>optional</i>	This type represents a list of key-value pairs. The order of the pairs in the list is not significant. In JSON, a set of keyvalue pairs is represented as an object. It shall comply with the provisions defined in clause 4 of IETF RFC 8259. In the following example, a list of key-value pairs with four keys ("aString", "aNumber", "anArray" and "anObject") is provided to illustrate that the values associated with different keys can be of different type.	object
resourceDefinitionId <i>optional</i>	An identifier that is unique within a limited local scope other than above listed identifiers, such as within a complex data structure or within a request-response pair. Representation: string of variable length.	string

Name	Description	Schema
storageResource <i>required</i>	This type represents the information that allows addressing a virtualised resource that is used by a VNF instance. Information about the resource is available from the VIM.	storageResource
virtualStorageDescId <i>required</i>	An identifier that is unique within a VNF descriptor.	string

storageResource

Name	Description	Schema
resourceId <i>required</i>	An identifier maintained by the VIM or other resource provider. It is expected to be unique within the VIM instance.	string
resourceProviderId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimConnectionId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimLevelResourceType <i>optional</i>	The value set of the "vimLevelResourceType" attribute is within the scope of the VIM or the resource provider and can be used as information that complements the ResourceHandle. This value set is different from the value set of the "type" attribute in the ResourceDefinition (refer to clause 9.5.3.2 in SOL003).	string

affectedVnfcs

Name	Description	Schema
addedStorageResourceIds <i>optional</i>	References to VirtualStorage resources that have been added. Each value refers to a VirtualStorageResourceInfo item in the VnfInstance that was added to the VNFC. It shall be provided if at least one storage resource was added to the VNFC.	< string > array

Name	Description	Schema
affectedVnfcCpIds <i>optional</i>	Identifiers of CP(s) of the VNFC instance that were affected by the change. Shall be present for those affected CPs of the VNFC instance that are associated to an external CP of the VNF instance. May be present for further affected CPs of the VNFC instance.	< string > array
changeType <i>required</i>	Signals the type of change. Permitted values: * ADDED * REMOVED * MODIFIED * TEMPORARY For a temporary resource, an AffectedVnfc structure exists as long as the temporary resource exists.	enum (ADDED, REMOVED, MODIFIED, TEMPORARY)
computeResource <i>required</i>	This type represents the information that allows addressing a virtualised resource that is used by a VNF instance. Information about the resource is available from the VIM.	computeResource
id <i>required</i>	An identifier that is unique for the respective type within a VNF instance, but may not be globally unique.	string
metadata <i>optional</i>	This type represents a list of key-value pairs. The order of the pairs in the list is not significant. In JSON, a set of keyvalue pairs is represented as an object. It shall comply with the provisions defined in clause 4 of IETF RFC 8259. In the following example, a list of key-value pairs with four keys ("aString", "aNumber", "anArray" and "anObject") is provided to illustrate that the values associated with different keys can be of different type.	object
removedStorageResourceIds <i>optional</i>	References to VirtualStorage resources that have been removed. The value contains the identifier of a VirtualStorageResourceInfo item that has been removed from the VNFC, and might no longer exist in the VnfInstance. It shall be provided if at least one storage resource was removed from the VNFC.	< string > array
resourceDefinitionId <i>optional</i>	An identifier that is unique within a limited local scope other than above listed identifiers, such as within a complex data structure or within a request-response pair. Representation: string of variable length.	string
vduId <i>required</i>	An identifier that is unique within a VNF descriptor.	string
zoneId <i>optional</i>	An identifier with the intention of being globally unique.	string

computeResource

Name	Description	Schema
resourceId <i>required</i>	An identifier maintained by the VIM or other resource provider. It is expected to be unique within the VIM instance.	string
resourceProviderId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimConnectionId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimLevelResourceType <i>optional</i>	The value set of the "vimLevelResourceType" attribute is within the scope of the VIM or the resource provider and can be used as information that complements the ResourceHandle. This value set is different from the value set of the "type" attribute in the ResourceDefinition (refer to clause 9.5.3.2 in SOL003).	string

changedExtConnectivity

Name	Description	Schema
extLinkPorts <i>optional</i>	Link ports of this VL.	< extLinkPorts > array
id <i>required</i>	An identifier with the intention of being globally unique.	string
resourceHandle <i>required</i>	This type represents the information that allows addressing a virtualised resource that is used by a VNF instance. Information about the resource is available from the VIM.	resourceHandle

extLinkPorts

Name	Description	Schema
cpInstanceId <i>optional</i>	An identifier that is unique for the respective type within a VNF instance, but may not be globally unique.	string
id <i>required</i>	An identifier with the intention of being globally unique.	string

Name	Description	Schema
resourceHandle <i>required</i>	This type represents the information that allows addressing a virtualised resource that is used by a VNF instance. Information about the resource is available from the VIM.	resourceHandle

resourceHandle

Name	Description	Schema
resourceId <i>required</i>	An identifier maintained by the VIM or other resource provider. It is expected to be unique within the VIM instance.	string
resourceProviderId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimConnectionId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimLevelResourceType <i>optional</i>	The value set of the "vimLevelResourceType" attribute is within the scope of the VIM or the resource provider and can be used as information that complements the ResourceHandle. This value set is different from the value set of the "type" attribute in the ResourceDefinition (refer to clause 9.5.3.2 in SOL003).	string

resourceHandle

Name	Description	Schema
resourceId <i>required</i>	An identifier maintained by the VIM or other resource provider. It is expected to be unique within the VIM instance.	string
resourceProviderId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimConnectionId <i>optional</i>	An identifier with the intention of being globally unique.	string

Name	Description	Schema
vimLevelResourceType <i>optional</i>	The value set of the "vimLevelResourceType" attribute is within the scope of the VIM or the resource provider and can be used as information that complements the ResourceHandle. This value set is different from the value set of the "type" attribute in the ResourceDefinition (refer to clause 9.5.3.2 in SOL003).	string

changedInfo

Name	Description	Schema
extensions <i>optional</i>	This type represents a list of key-value pairs. The order of the pairs in the list is not significant. In JSON, a set of keyvalue pairs is represented as an object. It shall comply with the provisions defined in clause 4 of IETF RFC 8259. In the following example, a list of key-value pairs with four keys ("aString", "aNumber", "anArray" and "anObject") is provided to illustrate that the values associated with different keys can be of different type.	object
metadata <i>optional</i>	This type represents a list of key-value pairs. The order of the pairs in the list is not significant. In JSON, a set of keyvalue pairs is represented as an object. It shall comply with the provisions defined in clause 4 of IETF RFC 8259. In the following example, a list of key-value pairs with four keys ("aString", "aNumber", "anArray" and "anObject") is provided to illustrate that the values associated with different keys can be of different type.	object
vimConnectionInfo <i>optional</i>	If present, this attribute signals modifications of certain entries in the "vimConnectionInfo" attribute array in "VnfInstance".	< vimConnectionInfo > array
vimConnectionInfoDeleteIds <i>optional</i>	If present, this attribute signals the deletion of certain entries in the "vimConnectionInfo" attribute array in "VnfInstance".	< string > array

Name	Description	Schema
vnfConfigurableProperties <i>optional</i>	This type represents a list of key-value pairs. The order of the pairs in the list is not significant. In JSON, a set of keyvalue pairs is represented as an object. It shall comply with the provisions defined in clause 4 of IETF RFC 8259. In the following example, a list of key-value pairs with four keys ("aString", "aNumber", "anArray" and "anObject") is provided to illustrate that the values associated with different keys can be of different type.	object
vnfInstanceDescription <i>optional</i>	A string defined in IETF RFC 8259.	string
vnfInstanceName <i>optional</i>	A string defined in IETF RFC 8259.	string
vnfProductName <i>optional</i>	A string defined in IETF RFC 8259.	string
vnfProvider <i>optional</i>	A string defined in IETF RFC 8259.	string
vnfSoftwareVersion <i>optional</i>	A version.	string
vnfdId <i>optional</i>	An identifier with the intention of being globally unique.	string
vnfdVersion <i>optional</i>	A version.	string

vimConnectionInfo

Name	Description	Schema
accessInfo <i>optional</i>	This type represents a list of key-value pairs. The order of the pairs in the list is not significant. In JSON, a set of keyvalue pairs is represented as an object. It shall comply with the provisions defined in clause 4 of IETF RFC 8259. In the following example, a list of key-value pairs with four keys ("aString", "aNumber", "anArray" and "anObject") is provided to illustrate that the values associated with different keys can be of different type.	object
extra <i>optional</i>	This type represents a list of key-value pairs. The order of the pairs in the list is not significant. In JSON, a set of keyvalue pairs is represented as an object. It shall comply with the provisions defined in clause 4 of IETF RFC 8259. In the following example, a list of key-value pairs with four keys ("aString", "aNumber", "anArray" and "anObject") is provided to illustrate that the values associated with different keys can be of different type.	object
id <i>required</i>	An identifier with the intention of being globally unique.	string
interfaceInfo <i>optional</i>	This type represents a list of key-value pairs. The order of the pairs in the list is not significant. In JSON, a set of keyvalue pairs is represented as an object. It shall comply with the provisions defined in clause 4 of IETF RFC 8259. In the following example, a list of key-value pairs with four keys ("aString", "aNumber", "anArray" and "anObject") is provided to illustrate that the values associated with different keys can be of different type.	object
vimId <i>optional</i>	An identifier with the intention of being globally unique.	string
vimType <i>required</i>	Discriminator for the different types of the VIM information. The value of this attribute determines the structure of the "interfaceInfo" and "accessInfo" attributes, based on the type of the VIM. The set of permitted values is expected to change over time as new types or versions of VIMs become available. The ETSI NFV registry of VIM-related information provides access to information about VimConnectionInfo definitions for various VIM types. The structure of the registry is defined in Annex C of SOL003.	string

error

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Responses

HTTP Code	Description	Schema
204	<p>204 NO CONTENT Shall be returned when the notification has been delivered successfully.</p> <p>Headers :</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	No Content

HTTP Code	Description	Schema
400	<p>400 BAD REQUEST 400 code can be returned in the following specified cases, the specific cause has to be proper specified in the "ProblemDetails" structure to be returned. If the request is malformed or syntactically incorrect (e.g. if the request URI contains incorrect query parameters or the payload body contains a syntactically incorrect data structure), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If the response to a GET request which queries a container resource would be so big that the performance of the API producer is adversely affected, and the API producer does not support paging for the affected resource, it shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If there is an application error related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem. If the request contains a malformed access token, the API producer should respond with this response. The details of the error shall be returned in the WWW Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided. The use of this HTTP error response code described above is applicable to the use of the OAuth 2.0 for the authorization of API requests and notifications, as defined in clauses 4.5.3.3 and 4.5.3.4.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 400</p>

HTTP Code	Description	Schema
401	<p>401 UNAUTHORIZED If the request contains no access token even though one is required, or if the request contains an authorization token that is invalid (e.g. expired or revoked), the API producer should respond with this response. The details of the error shall be returned in the WWW-Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 401</p>
403	<p>403 FORBIDDEN If the API consumer is not allowed to perform a particular request to a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided. It should include in the "detail" attribute information about the source of the problem, and may indicate how to solve it.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 403</p>
405	<p>405 METHOD NOT ALLOWED If a particular HTTP method is not supported for a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 405</p>

HTTP Code	Description	Schema
406	<p>406 NOT ACCEPTABLE If the "Accept" HTTP header does not contain at least one name of a content type that is acceptable to the API producer, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	Response 406
500	<p>500 INTERNAL SERVER ERROR If there is an application error not related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	Response 500
503	<p>503 SERVICE UNAVAILABLE If the API producer encounters an internal overload situation of itself or of a system it relies on, it should respond with this response code, following the provisions in IETF RFC 7231 for the use of the "Retry-After" HTTP header and for the alternative to refuse the connection. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	Response 503

Response 400

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 401

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 403

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 405

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 406

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string

Name	Description	Schema
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 500

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 503

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

GET

/URI_is_provided_by_the_client_when_creating_the_subscription-VnflcmOperationOccurrenceNotification

Description

The GET method allows the API producer to test the notification endpoint that is provided by the API consumer, e.g. during subscription. This method shall follow the provisions specified in the tables 5.4.20.3.2-1 and 5.4.20.3.2-2 for URI query parameters, request and response data structures, and response codes.

Parameters

Type	Name	Description	Schema
Header	Authorization <i>optional</i>	The authorization token for the request. Reference: IETF RFC 7235	string
Header	Version <i>required</i>	Version of the API requested to use when responding to this request.	string

Responses

HTTP Code	Description	Schema
204	204 NO CONTENT Shall be returned to indicate that the notification endpoint has been tested successfully. The response body shall be empty. Headers : WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token. Version (string) : Version of the API used in the response.	No Content

HTTP Code	Description	Schema
400	<p>400 BAD REQUEST 400 code can be returned in the following specified cases, the specific cause has to be proper specified in the "ProblemDetails" structure to be returned. If the request is malformed or syntactically incorrect (e.g. if the request URI contains incorrect query parameters or the payload body contains a syntactically incorrect data structure), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If the response to a GET request which queries a container resource would be so big that the performance of the API producer is adversely affected, and the API producer does not support paging for the affected resource, it shall respond with this response code. The "ProblemDetails" structure shall be provided, and should include in the "detail" attribute more information about the source of the problem. If there is an application error related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem. If the request contains a malformed access token, the API producer should respond with this response. The details of the error shall be returned in the WWW Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided. The use of this HTTP error response code described above is applicable to the use of the OAuth 2.0 for the authorization of API requests and notifications, as defined in clauses 4.5.3.3 and 4.5.3.4.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 400</p>

HTTP Code	Description	Schema
401	<p>401 UNAUTHORIZED If the request contains no access token even though one is required, or if the request contains an authorization token that is invalid (e.g. expired or revoked), the API producer should respond with this response. The details of the error shall be returned in the WWW-Authenticate HTTP header, as defined in IETF RFC 6750 and IETF RFC 7235. The ProblemDetails structure may be provided.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 401</p>
403	<p>403 FORBIDDEN If the API consumer is not allowed to perform a particular request to a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided. It should include in the "detail" attribute information about the source of the problem, and may indicate how to solve it.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 403</p>
405	<p>405 METHOD NOT ALLOWED If a particular HTTP method is not supported for a particular resource, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 405</p>

HTTP Code	Description	Schema
406	<p>406 NOT ACCEPTABLE If the "Accept" HTTP header does not contain at least one name of a content type that is acceptable to the API producer, the API producer shall respond with this response code. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 406</p>
500	<p>500 INTERNAL SERVER ERROR If there is an application error not related to the client's input that cannot be easily mapped to any other HTTP response code ("catch all error"), the API producer shall respond with this response code. The "ProblemDetails" structure shall be provided, and shall include in the "detail" attribute more information about the source of the problem.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 500</p>
503	<p>503 SERVICE UNAVAILABLE If the API producer encounters an internal overload situation of itself or of a system it relies on, it should respond with this response code, following the provisions in IETF RFC 7231 for the use of the "Retry-After" HTTP header and for the alternative to refuse the connection. The "ProblemDetails" structure may be omitted.</p> <p>Headers :</p> <p>Content-Type (string) : The MIME type of the body of the response.</p> <p>WWW-Authenticate (string) : Challenge if the corresponding HTTP request has not provided authorization, or error details if the corresponding HTTP request has provided an invalid authorization token.</p> <p>Version (string) : Version of the API used in the response.</p>	<p>Response 503</p>

Response 400

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 401

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 403

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 405

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 406

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string

Name	Description	Schema
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 500

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer

Name	Description	Schema
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)

Response 503

Name	Description	Schema
detail <i>required</i>	A human-readable explanation specific to this occurrence of the problem.	string
instance <i>optional</i>	A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.	string (URI)
status <i>required</i>	The HTTP status code for this occurrence of the problem. The HTTP status code ([RFC7231], Section 6) generated by the origin server for this occurrence of the problem.	integer
title <i>optional</i>	A short, human-readable summary of the problem type. It should not change from occurrence to occurrence of the problem, except for purposes of localization. If type is given and other than "about:blank", this attribute shall also be provided. A short, human-readable summary of the problem type. It SHOULD NOT change from occurrence to occurrence of the problem, except for purposes of localization (e.g., using proactive content negotiation; see [RFC7231], Section 3.4).	string

Name	Description	Schema
type <i>optional</i>	A URI reference according to IETF RFC 3986 [5] that identifies the problem type. It is encouraged that the URI provides human-readable documentation for the problem (e.g. using HTML) when dereferenced. When this member is not present, its value is assumed to be "about:blank".	string (URI)