

# SOL002 - VNF Performance Management Notification interface

## Overview

SOL002 - VNF Performance 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 and has not been approved by the ETSI NFV ISG. 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* : 2.1.0-impl:etsi.org:ETSI\_NFV\_OpenAPI:1

## Contact information

*Contact* : NFV-SOL WG

## 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* : HTTP, HTTPS

## Consumes

- `application/json`

## Produces

- `application/json`

## External Docs

*Description* : ETSI GS NFV-SOL 002 V2.8.1

*URL* : [https://www.etsi.org/deliver/etsi\\_gs/NFV-SOL/001\\_099/002/02.08.01\\_60/gs\\_NFV-](https://www.etsi.org/deliver/etsi_gs/NFV-SOL/001_099/002/02.08.01_60/gs_NFV-)

# Paths

## POST

### /URI\_is\_provided\_by\_the\_client\_when\_creating\_the\_subscription-PerformanceInformationAvailableNotification

#### Description

Notify The POST method delivers a notification regarding a performance management event from API producer to an API consumer. The API consumer shall have previously created an "Individual subscription" resource with a matching filter.

#### Parameters

| Type   | Name  | Description   | Schema  |
|--------|---|---|---|
| Header | <b>Authorization</b><br><i>optional</i>                               | The authorization token for the request.<br>Reference: IETF RFC 7235  | string  |
| Header | <b>Content-Type</b><br><i>required</i>                                | The MIME type of the body of the request.<br>Reference: IETF RFC 7231 | string  |
| Header | <b>Version</b><br><i>required</i>                                     | Version of the API requested to use when responding to this request.  | string  |
| Body   | <b>PerformanceInformationAvailableNotification</b><br><i>required</i> | Notification about performance information availability.              | <a href="#">PerformanceInformationAvailableNotification</a> |

#### PerformanceInformationAvailableNotification

| Name                             | Description  | Schema                 |
|----------------------------------|--|------------------------|
| <b>_links</b><br><i>required</i> | Links to resources related to this notification.           | <a href="#">_links</a> |
| <b>id</b><br><i>required</i>     | An identifier with the intention of being globally unique. | string                 |

| Name   | Description   | Schema  |
|--|---|---|
| <b>notificationType</b><br><i>required</i>     | Discriminator for the different notification types. Shall be set to "PerformanceInformationAvailableNotification" for this notification type.   | enum<br>(PerformanceInformationAvailableNotification) |
| <b>objectInstanceId</b><br><i>required</i>     | An identifier with the intention of being globally unique.  | string  |
| <b>objectType</b><br><i>required</i>           | Type of the measured object. The applicable measured object type for a measurement is defined in clause 7.2 of ETSI GS NFV-IFA 027.   | string  |
| <b>pmJobId</b><br><i>required</i>              | An identifier with the intention of being globally unique.  | string  |
| <b>subObjectInstanceIds</b><br><i>optional</i> | Identifiers of the sub-object instances of the measured object instance for which the measurements have been taken. Shall be present if the related PM job has been set up to measure only a subset of all sub-object instances of the measured object instance and a sub-object is defined in clause 6.2 of ETSI GS NFV-IFA 027 for the related measured object type. Shall be absent otherwise. | < string > array                                      |
| <b>timeStamp</b><br><i>required</i>            | Date-time stamp. Representation: String formatted according to IETF RFC 3339.   | string (date-time)                                    |

### links

| Name  | Description   | Schema                            |
|---|---|-----------------------------------|
| <b>objectInstance</b><br><i>optional</i>    | This type represents a link to a resource in a notification, using an absolute or relative URI. | <a href="#">objectInstance</a>    |
| <b>performanceReport</b><br><i>required</i> | This type represents a link to a resource in a notification, using an absolute or relative URI. | <a href="#">performanceReport</a> |
| <b>pmJob</b><br><i>required</i>             | This type represents a link to a resource in a notification, using an absolute or relative URI. | <a href="#">pmJob</a>             |

### **objectInstance**

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

### performanceReport

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

### pmJob

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

## Responses

| HTTP Code | Description  | Schema     |
|-----------|--|------------|
| 204       | <p>No Content Shall be returned when the notification has been delivered successfully.</p> <p><b>Headers :</b></p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p> | <p><a href="#">Response 400</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p> | <p><a href="#">Response 401</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>   | <p><a href="#">Response 403</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>   | <p><a href="#">Response 405</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>                        | Response 503 |

## Response 400

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |



| <b>Name</b>                     | <b>Description</b>  | <b>Schema</b> |
|---------------------------------|---|---------------|
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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       |
|--------------------------------|--|--------------|
| <b>type</b><br><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       |
|------------------------------------|---|--------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string       |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI) |
| <b>status</b><br><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      |
| <b>title</b><br><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       |
| <b>type</b><br><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 |
|----------------------------------|--|--------|
| <b>detail</b><br><i>required</i> | A human-readable explanation specific to this occurrence of the problem. | string |

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |

| <b>Name</b>                     | <b>Description</b>  | <b>Schema</b> |
|---------------------------------|---|---------------|
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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       |
|--------------------------------|--|--------------|
| <b>type</b><br><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-PerformanceInformationAvailableNotification

### Description

The GET method allows the API producer to test the notification endpoint that is provided by the API consumer, e.g. during subscription.

### Parameters

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

### Responses

| HTTP Code  | Description   | Schema     |
|------------|---|------------|
| <b>204</b> | No Content Shall be returned to indicate that the notification endpoint has been tested successfully. The response body shall be empty.<br><b>Headers :</b><br><b>WWW-Authenticate</b> (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.<br><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p> | <p><a href="#">Response 400</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p> | <p><a href="#">Response 401</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>   | <p><a href="#">Response 403</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>   | <p><a href="#">Response 405</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>                        | Response 503 |

## Response 400



| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |

| <b>Name</b>                     | <b>Description</b>  | <b>Schema</b> |
|---------------------------------|---|---------------|
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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       |
|--------------------------------|--|--------------|
| <b>type</b><br><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       |
|------------------------------------|---|--------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string       |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI) |
| <b>status</b><br><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      |
| <b>title</b><br><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       |
| <b>type</b><br><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 |
|----------------------------------|--|--------|
| <b>detail</b><br><i>required</i> | A human-readable explanation specific to this occurrence of the problem. | string |

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |

| <b>Name</b>                     | <b>Description</b>  | <b>Schema</b> |
|---------------------------------|---|---------------|
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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       |
|--------------------------------|--|--------------|
| <b>type</b><br><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-ThresholdCrossedNotification

#### Description

Notify The POST method delivers a notification regarding a performance management event from API producer to an API consumer. The API consumer shall have previously created an "Individual subscription" resource with a matching filter.

#### Parameters

| Type          | Name   | Description   | Schema                                       |
|---------------|--|---|--|
| <b>Header</b> | <b>Authorization</b><br><i>optional</i>                | The authorization token for the request.<br>Reference: IETF RFC 7235  | string                                       |
| <b>Header</b> | <b>Content-Type</b><br><i>required</i>                 | The MIME type of the body of the request.<br>Reference: IETF RFC 7231 | string                                       |
| <b>Header</b> | <b>Version</b><br><i>required</i>                      | Version of the API requested to use when responding to this request.  | string                                       |
| <b>Body</b>   | <b>ThresholdCrossedNotification</b><br><i>required</i> | Notification about performance information availability.              | <a href="#">ThresholdCrossedNotification</a> |

#### ThresholdCrossedNotification

| Name                             | Description                                      | Schema                 |
|----------------------------------|--|------------------------|
| <b>_links</b><br><i>required</i> | Links to resources related to this notification. | <a href="#">_links</a> |

| Name  | Description   | Schema                              |
|---|---|-------------------------------------|
| <b>context</b><br><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                              |
| <b>crossingDirection</b><br><i>required</i> |   | enum (UP, DOWN)                     |
| <b>id</b><br><i>required</i>                | An identifier with the intention of being globally unique.  | string                              |
| <b>notificationType</b><br><i>required</i>  | Discriminator for the different notification types. Shall be set to "ThresholdCrossedNotification" for this notification type.  | enum (ThresholdCrossedNotification) |
| <b>objectInstanceId</b><br><i>required</i>  | An identifier with the intention of being globally unique.  | string                              |
| <b>objectType</b><br><i>required</i>        | Type of the measured object. The applicable measured object type for a measurement is defined in clause 7.2 of ETSI GS NFV-IFA 027.   | string                              |
| <b>performanceMetric</b><br><i>required</i> | Performance metric associated with the threshold. This attribute shall contain the related "Measurement Name" value as defined in clause 7.2 of ETSI GS NFV-IFA 027.  | string                              |
| <b>performanceValue</b><br><i>required</i>  | Value of the metric that resulted in threshold crossing. The type of this attribute shall correspond to the related "Measurement Unit" as defined in clause 7.2 of ETSI GS NFV-IFA 027.   | object                              |
| <b>subObjectId</b><br><i>optional</i>       | An identifier that is unique for the respective type within a VNF instance, but may not be globally unique.   | string                              |
| <b>thresholdId</b><br><i>required</i>       | An identifier with the intention of being globally unique.  | string                              |

| Name                                | Description   | Schema             |
|-------------------------------------|---|--------------------|
| <b>timeStamp</b><br><i>required</i> | Date-time stamp. Representation: String formatted according to IETF RFC 3339. | string (date-time) |

## links

| Name                                     | Description   | Schema                         |
|--|---|--------------------------------|
| <b>objectInstance</b><br><i>optional</i> | This type represents a link to a resource in a notification, using an absolute or relative URI. | <a href="#">objectInstance</a> |
| <b>threshold</b><br><i>required</i>      | This type represents a link to a resource in a notification, using an absolute or relative URI. | <a href="#">threshold</a>      |

## objectInstance

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

## threshold

| Name                           | Description                                  | Schema |
|--------------------------------|--|--------|
| <b>href</b><br><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><b>Headers :</b></p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p> | <p><a href="#">Response 400</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p> | <p><a href="#">Response 401</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>   | <p><a href="#">Response 403</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>   | <p><a href="#">Response 405</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>   | <p><a href="#">Response 406</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p> | <p><a href="#">Response 500</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>                        | <p><a href="#">Response 503</a></p> |

## Response 400

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
|---------------------------------|---|--------------|
| <b>title</b><br><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       |
| <b>type</b><br><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       |
|------------------------------------|---|--------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string       |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI) |
| <b>status</b><br><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      |
| <b>title</b><br><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       |
|--------------------------------|--|--------------|
| <b>type</b><br><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       |
|------------------------------------|---|--------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string       |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI) |
| <b>status</b><br><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      |
| <b>title</b><br><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       |
| <b>type</b><br><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 |
|----------------------------------|--|--------|
| <b>detail</b><br><i>required</i> | A human-readable explanation specific to this occurrence of the problem. | string |

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |

| <b>Name</b>                     | <b>Description</b>  | <b>Schema</b> |
|---------------------------------|---|---------------|
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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       |
|--------------------------------|--|--------------|
| <b>type</b><br><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-ThresholdCrossedNotification

### Description

The GET method allows the API producer to test the notification endpoint that is provided by the API consumer, e.g. during subscription.

### Parameters

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

### Responses

| HTTP Code  | Description  | Schema     |
|------------|--|------------|
| <b>204</b> | <p>204 NO CONTENT Shall be returned to indicate that the notification endpoint has been tested successfully. The response body shall be empty.</p> <p><b>Headers :</b></p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p> | <p><a href="#">Response 400</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p> | <p><a href="#">Response 401</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>   | <p><a href="#">Response 403</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>   | <p><a href="#">Response 405</a></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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (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><b>Headers :</b></p> <p><b>Content-Type</b> (string) : The MIME type of the body of the response.</p> <p><b>WWW-Authenticate</b> (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><b>Version</b> (string) : Version of the API used in the response.</p>                        | Response 503 |

## Response 400

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |

| <b>Name</b>                     | <b>Description</b>  | <b>Schema</b> |
|---------------------------------|---|---------------|
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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       |
|--------------------------------|--|--------------|
| <b>type</b><br><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       |
|------------------------------------|---|--------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string       |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI) |
| <b>status</b><br><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      |
| <b>title</b><br><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       |
| <b>type</b><br><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 |
|----------------------------------|--|--------|
| <b>detail</b><br><i>required</i> | A human-readable explanation specific to this occurrence of the problem. | string |

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |



| <b>Name</b>                     | <b>Description</b>  | <b>Schema</b> |
|---------------------------------|---|---------------|
| <b>title</b><br><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        |
| <b>type</b><br><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

| <b>Name</b>                        | <b>Description</b>  | <b>Schema</b> |
|------------------------------------|---|---------------|
| <b>detail</b><br><i>required</i>   | A human-readable explanation specific to this occurrence of the problem.  | string        |
| <b>instance</b><br><i>optional</i> | A URI reference that identifies the specific occurrence of the problem. It may yield further information if dereferenced.   | string (URI)  |
| <b>status</b><br><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       |
| <b>title</b><br><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       |
|--------------------------------|--|--------------|
| <b>type</b><br><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) |