**3GPP TSG-CT WG4 Meeting #123C4-242274**

**Hyderabad, India; 27th – 31st May 2024**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** | **-** | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Service specific support of 204 status code for HTTP GET method | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SBIProtoc18 | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | The NF service server may not able to response any information when treating the Get method, which the request has been treated successfully but no information matching the query parameter(s) can be returned.  For example, the BSF may not able to response the individual information if no PCF for a PDU Session binding information matching the query parameter(s). Meanwhile the GET request has been treated successfully. | | | | | | | | |
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| ***Summary of change:*** | | Adding service specific support of 204 status code for HTTP GET method. | | | | | | | | |
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| ***Consequences if not approved:*** | | The solution is not completed. Some APIs need an backward imcompatible correction. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.7.1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR does not impact the API file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* First Change \* \* \* \*

#### 5.2.7.1 General

This clause describes the HTTP status codes usage on SBI.

HTTP status codes are carried in ":status" pseudo header field in HTTP/2, as defined in clause 8.1.2.4 in IETF RFC 9113 [7].

Table 5.2.7.1-1 specifies HTTP status codes per HTTP method which shall be supported on SBI. Support of an HTTP status code shall be:

- mandatory, which is marked in table as "M". This means that all 3GPP NFs shall support the processing of the specific HTTP status code for the specific HTTP method, when received in a HTTP response message. In such cases the 3GPP NF shall also support the handling of the "ProblemDetails" JSON object with the Content-Type header field set to the value "application/problem+json" for HTTP status codes 4xx and 5xx, if the corresponding API definition in the related technical specification does not specify another response body for the corresponding status code;

- service specific, which is marked in table as "SS" and means that the requirement to process the HTTP status code depends on the definition of the specific API; or

- not applicable, which is marked in table as "N/A". This means that the specific HTTP status code shall not be used for the specific HTTP method within the 3GPP NFs.

Table 5.2.7.1-1: HTTP status code supported on SBI

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| HTTP status code | HTTP method | | | | | |
| DELETE | GET | PATCH | POST | PUT | OPTIONS |
| 100 Continue | N/A | N/A | N/A | N/A | N/A | N/A |
| 200 OK (NOTE 1, NOTE 2) | SS | M | SS | SS | SS | M |
| 201 Created | N/A | N/A | N/A | SS | SS | N/A |
| 202 Accepted | SS | N/A | SS | SS | SS | N/A |
| 204 No Content (NOTE 2) | M | SS (NOTE 5) | SS | SS | SS | SS |
| 300 Multiple Choices | N/A | N/A | N/A | N/A | N/A | N/A |
| 303 See Other | SS | SS | N/A | SS | SS | N/A |
| 307 Temporary Redirect | SS | SS | SS | SS | SS | SS |
| 308 Permanent Redirect | SS | SS | SS | SS | SS | SS |
| 400 Bad Request | M | M | M | M | M | M |
| 401 Unauthorized | M | M | M | M | M | M |
| 403 Forbidden | M | M | M | M | M | M |
| 404 Not Found | M | M | M | M | M | M |
| 405 Method Not Allowed | SS | SS | SS | SS | SS | SS |
| 406 Not Acceptable | N/A | M | N/A | N/A | N/A | SS |
| 408 Request Timeout | SS | SS | SS | SS | SS | SS |
| 409 Conflict | N/A | SS | SS | SS | SS | N/A |
| 410 Gone | SS | SS | SS | SS | SS | SS |
| 411 Length Required | N/A | N/A | M | M | M | SS |
| 412 Precondition Failed | SS | SS | SS | SS | SS | N/A |
| 413 Content Too Large | N/A | N/A | M | M | M | SS |
| 414 URI Too Long | N/A | SS (NOTE 3) | N/A | N/A | SS | N/A |
| 415 Unsupported Media Type | N/A | N/A | M | M | M | SS |
| 429 Too Many Requests | M | M | M | M | M | M |
| 500 Internal Server Error | M | M | M | M | M | M |
| 501 Not Implemented | SS | SS | SS | SS | SS | SS |
| 502 Bad Gateway | M | M | M | M | M | M |
| 503 Service Unavailable | M | M | M | M | M | M |
| 504 Gateway Timeout  (NOTE 4) | SS | SS | SS | SS | SS | SS |
| NOTE 1: "200 OK" response used on SBI shall contain body.  NOTE 2: If the NF acting as an HTTP Client receives 2xx response code not appearing in table, the NF shall treat the received 2xx response: - as "204 No Content" if 2xx response does not contain body; and - as "200 OK" if 2xx response contains body.  NOTE 3: If GET method includes any query parameter, the NF acting as an HTTP Client shall support "414 URI Too Long" status code.  NOTE 4: A 5GC Network Function acting as an HTTP Client and supporting indirect communications shall support "504 Gateway Timeout" status code with "ProblemDetails" (see clause 6.10.8.2).  NOTE 5: If GET method is treated successfully but no information matching the query parameter(s) is returned, the "200 OK" shall be used except the service specific case in Nbsf, Nudr, and Nnwdaf interfaces. | | | | | |  |

\* \* \* End of Changes \* \* \* \*