**3GPP TSG-SA4 Meeting #118-e *S4-220485***

**Electronic Meeting, Telco, April 6-14, 2022**

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| *CR-Form-v12.0* | | | | | | | | |
| **Pseudo CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** |  | **Current version:** | 1.0.0 |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Additional Text for Currently Empty Sections | | | | | | | | | |
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| ***Source to WG:*** | , BBC, Ericsson LM | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
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| ***Work item code:*** |  | | | | |  | ***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). | | | | | | | |  | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | There are still empty clauses in TS 26.532 that need to be filled out | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Proposed text for clauses 6.2.and 6.2.3, and small modification of clause 6.2.1 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Less complete specification | | | | | | | | |
| ***Q*** | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, 6.2, 7.2.3.2, 7.2.3.3.2, 7.2.3.3.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

FIRST CHANGE

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

(SNIPPED)

[16] OpenAPI: "OpenAPI 3.0.0 Specification", <https://github.com/OAI/OpenAPI-Specification/blob/master/versions/3.0.0.md>.

[X] ISO 8601-1:2019: "Date and time – Representations for information interchange – Part 1: Basic rules".

[Y] 3GPP TS 29.514: "5G System; Policy Authorization Service; Stage 3".

NEXT CHANGE

## 6.2 Provisioning Sessions API

### 6.2.1 Overview

This clause specifies the provisioning API used by the Provisioning AF of an Application Service Provider to provision and manipulate data collection and event exposure configurations in a Data Collection AF, via the *Ndcaf\_DataReportingProvisioning* service.

### 6.2.2 Resources

#### 6.2.2.1 Resource structure

Figure 6.2.2.1-1 depicts the URL path model for the Data Reporting Provisioning Sessions resource collection and its subordinate Data Reporting Provisioning Session resources of the *Ndcaf\_DataReportingProvisioning* service.



Figure 6.2.2.1‑1: URL path model of Data Reporting Provisioning Session related resources

Table 6.2.2.1-1 provides an overview of the resources and applicable HTTP methods.

Table 6.2.2‑1: Resources and methods overview

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service name | Operation name | Resource name | Resource path suffix | HTTP method | Description |
| Ndcaf\_DataReporting  Provisioning | CreateSession | Data Reporting Provisioning Sessions | /sessions | POST | Provisioning AF establishes a Data Reporting Provisioning Session with the Data Collection AF by providing information on what data is to be collected by the Data Collection AF, and how that data is to be processed by the Data Collection AF for subsequent exposure to Event notification subscribers. |
| UpdateSession | Data Reporting Provisioning Session | /sessions/  {sessionId | PUT,  PATCH | Modifies an existing Data Reporting Provisioning Session resource at the Data Collection AF. |
| RetrieveSession | Data Reporting Provisioning Session | /sessions/  {sessionId} | GET | Retrieves an existing Data Reporting Provisioning Session resource from the Data Collection AF. |
| DestroySession |  |  | DELETE | Destroys a Data Reporting Provisioning Session resource. |

#### 6.2.2.2 Data Reporting Provisioning Sessions resource collection

##### 6.2.2.2.1 Description

The Data Reporting Provisioning Sessions resource collection represents the set of all Data Reporting Provisioning Sessions at a given Data Collection AF (service) instance. The resource collection enables a Provisioning AF to create new Data Reporting Provisioning Session resources, and to manipulate configuration data of an existing Data Reporting Provisioning Session resource, at the Data Collection AF.

##### 6.2.2.2.2 Resource definition

Resource URL: **{apiRoot}/3gpp-ndcaf\_data-reporting-provisioning/{apiVersion}/sessions**

This resource shall support the resource URL variables defined in table 6.2.2.2.2-1.

Table 6.2.2.2.2-1: Resource URL variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 5.2. |
| apiVersion |  | See clause 5.2. |

##### 6.2.2.2.3 Resource Standard Methods

###### 6.2.2.2.3.1 Ndcaf\_DataReportingProvisioning\_CreateSession operation using POST method

This service operation shall support the URL query parameters specified in table 6.2.2.2.3.1-1.

Table 6.2.2.2.3.1-1: URL query parameters supported by the POST method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | Data type | P | Cardinality | Description |
|  |  |  |  |  |

This service operation shall support the request data structures specified in table 6.2.2.2.3.1-2 and the response data structures and response codes specified in table 6.2.2.2.3.1-4.

Table 6.2.2.2.3.1-2: Data structures supported by the POST request body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| DataReportingProvisioning  Session | M | 1 | Data supplied by the Provisioning AF to enable creation of a new Data Reporting Provisioning Session at the Data Collection AF. |

Table 6.2.2.2.3.1-3: Headers supported for POST requests on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP request  header | Data type | P | Cardinality | Description |
| Authorization | string | M | 1 | For authentication of the Provisioning AF (see NOTE). |
| Origin | string | O | 0..1 | Indicates the origin of the requester. |
| NOTE: If OAuth2.0 authorization is used the value is Bearer followed by a string representing the access token, see section 2.1 of RFC 6750 [8]. | | | | |

Table 6.2.2.2.3.1-4: Data structures supported by the POST response body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| DataReportingProvisioningSession | M | 1 | 201 Created | The creation of a Data Reporting Provisioning Session resource along with the configuration data provided by the Provisioning AF for this session is confirmed by the Data Collection AF. |
| NOTE: The mandatory HTTP error status codes for the POST method listed in table 5.2.7.1-1 of TS 29.500 [9] also apply. | | | | |

Table 6.2.2.2.3.1-5: Headers supported by the *201* (*Created*) response code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP response header | Data type | P | Cardinality | Description |
| Location | string | M | 1 | The URL of the newly created resource at the Data Collection AF, according to the structure: {apiRoot}/ndcaf-data-reporting-provisioning/{apiVersion}/sessions/{sessionId} |
| Access-Control-Allow-Origin | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header. |
| Access-Control-Allow-Methods | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: POST, PUT, DELETE |
| Access-Control-Expose-Headers | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: Location |

NOTE: Standard HTTP redirection using a 3xx response code with the Location header as well as Alt-Svc are allowed.

#### 6.2.2.3 Data Reporting Provisioning Session resource

##### 6.2.2.3.1 Description

The Data Reporting Provisioning Session resource represents a single session within the collection of Data Reporting Provisioning Sessions at a given Data Collection AF service instance.

##### 6.2.2.3.2 Resource definition

Resource URL: **{apiRoot}/3gpp-ndcaf\_data-reporting-provisioning/{apiVersion}/sessions/{sessionionId}**

This resource shall support the resource URI variables defined in table 6.2.2.3.2-1.

Table 6.2.2.3.2-1: Resource URL variables for this resource

|  |  |  |
| --- | --- | --- |
| Name | Data type | Definition |
| apiRoot | string | See clause 5.2. |
| sessionId | string | See clause 5.2. |

##### 6.2.2.3.3 Resource standard methods

###### 6.2.2.3.3.1 Ndcaf\_DataReportingProvisioning\_RetrieveSession operation using GET method

This method shall support the URL query parameters specified in table 6.2.2.3.3.1-1 and the headers specified in table 6.2.2.3.3.1-2.

Table 6.2.2.3.3.1-1: URL query parameters supported by the GET method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
|  |  |  |  |  |

Table 6.2.2.3.3.1-2: Headers supported for GET requests on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP request header | Data type | P | Cardinality | Description |
| Authorization | string | M | 1 | For authentication of the Provisioning AF (see NOTE). |
| Origin | string | O | 0..1 | Indicates the origin of the requester. |
| NOTE: If OAuth2.0 authorization is used, the value is Bearer followed by a string representing the access token, see section 2.1 RFC 6750 [8]. | | | | |

This method shall support the response data structures and response codes specified in table 6.2.2.3.3.1-3.

Table 6.2.2.3.3.1-3: Data structures supported by the GET response body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| DataReportingProvisioningSession | M | 1 | 200 OK | The requested Data Reporting Provisioning Session resource is returned to the Provisioning AF by the Data Collection AF. |
| ProblemDetails | O | 0..1 | 307 Temporary Redirect | Temporary redirection during a Data Reporting Session Provisioning session retrieval procedure. The response shall include a Location header field containing an alternative URL of the resource located in another Data Collection AF (service) instance.  Applicable if the feature "ES3XX" (Extended Support of HTTP 307/308 redirection as defined in TS 29.502 [11]) is supported. |
| ProblemDetails | O | 0..1 | 308 Permanent Redirect | Permanent redirection during a Data Reporting Session Provisioning session retrieval procedure. The response shall include a Location header field containing an alternative URL of the resource located in another Data Collection AF (service) instance.  Applicable if the feature "ES3XX" is supported. |
| ProblemDetails | O | 0..1 | 404 Not Found | This Data Reporting Provisioning Session resource does not exist (see NOTE 2). |
| NOTE 1: The mandatory HTTP error status codes for the GET method as listed in table 5.2.7.1-1 of TS 29.500 [9] also apply.  NOTE 2: Failure cases are described in subclause 6.2.4. | | | | |

Table 6.2.2.3.3.1-5: Headers supported by the 200 response code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP response header | Data type | P | Cardinality | Description |
| Access-Control-Allow-Origin | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header. |
| Access-Control-Allow-Methods | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: POST, PUT, DELETE. |
| Access-Control-Expose-Headers | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: Location. |

Table 6.2.2.3.3.1-6: Headers supported by the 307 and 308 response codes on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP response header | Data type | P | Cardinality | Description |
| Location | string | M | 1 | An alternative URL of the resource located in another Data Collection AF (service) instance. |
| 3gpp-Sbi-Target-Nf-Id | string | O | 0..1 | Identifier of the target NF (service) instance towards which the request is redirected |
| Access-Control-Allow-Origin | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header. |
| Access-Control-Allow-Methods | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: POST, PUT, DELETE |
| Access-Control-Expose-Headers | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: Location |

###### 6.2.2.3.3.2 Ndcaf\_DataReportingProvisioning\_UpdateSession operation using PUT or PATCH method

This method shall support the URL query parameters specified in table 6.2.2.3.3.2-1.

Table 6.2.2.3.3.2-1: URL query parameters supported by the PUT or PATCH method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
|  |  |  |  |  |

This method shall support the request data structures specified in table 6.2.2.3.3.2-2 and the response data structures and response codes specified in table 6.2.2.3.3.2-4.

Table 6.2.2.3.3.2-2: Data structures supported by the PUT or PATCH request body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
| DataReportingProvisioning  Session | M | 1 | Parameters to replace or modify an existing Data Reporting Provisioning Session resource. |

Table 6.2.2.3.3.2-3: Headers supported for PUT or PATCH requests on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP request header | Data type | P | Cardinality | Description |
| Authorization | string | M | 1 | For authentication of the Provisioning AF (see NOTE). |
| Origin | string | O | 0..1 | Indicates the origin of the requester. |
| NOTE : If OAuth2.0 authorization is used the value is *Bearer* followed by a string representing the access token, see section 2.1 RFC 6750 [8] | | | | |

Table 6.2.2.3.3.2-4: Data structures supported by the PUT or PATCH response body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response codes | Description |
| DataReportingProvisioningSession | M | 1 | 200 OK | The replacement or modification of a Data Reporting Session Provisioning resource along with the configuration data provided by the Provisioning AF for this session is confirmed by the Data Collection AF. |
| ProblemDetails | O | 0..1 | 307 Temporary Redirect | Temporary redirection, during a Data Reporting Provisioning Session replacement or modification procedure. The response shall include a Location header field containing an alternative URL of the resource located in another Data Collection AF (service) instance.  Applicable if the feature "ES3XX" (Extended Support of HTTP 307/308 redirection as defined in TS 29.502 [11]) is supported. |
| ProblemDetails | O | 0..1 | 308 Permanent Redirect | Permanent redirection, during a Data Reporting Provisioning Session replacement or modification procedure. The response shall include a Location header field containing an alternative URL of the resource located in another Data Collection AF (service) instance.  Applicable if the feature "ES3XX" is supported. |
| ProblemDetails | O | 0..1 | 404 Not Found | This Data Reporting Provisioning Session resource does not exist (see NOTE 2). |
| NOTE 1: The mandatory HTTP error status codes for the PUT and PATCH methods listed in table 5.2.7.1-1 of TS 29.500 [9] also apply.  NOTE 2: Failure cases are described in subclause 6.2.4. | | | | |

Table 6.2.2.3.3.2-5: Headers supported by the 200 response code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP response header | Data type | P | Cardinality | Description |
| Access-Control-Allow-Origin | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header. |
| Access-Control-Allow-Methods | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: POST, PUT, DELETE. |
| Access-Control-Expose-Headers | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: Location. |

Table 6.2.2.3.3.2-6: Headers supported by the 307 and 308 response codes on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP response header | Data type | P | Cardinality | Description |
| Location | string | M | 1 | An alternative URL of the resource located in another Data Collection AF (service) instance. |
| 3gpp-Sbi-Target-Nf-Id | string | O | 0..1 | Identifier of the target NF (service) instance towards which the request is redirected |
| Access-Control-Allow-Origin | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header. |
| Access-Control-Allow-Methods | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: POST, PUT, *PATCH,* DELETE |
| Access-Control-Expose-Headers | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: Location |

###### 6.2.2.3.3.3 Ndcaf\_DataReportingProvisioning\_DestroySession operation using DELETE method

This service operation shall support the URL query parameters specified in table 6.2.2.3.3.3-1.

Table 6.2.2.3.3.3-1: URL query parameters supported by the DELETE method on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Data type | P | Cardinality | Description |
|  |  |  |  |  |

This method shall support the request data structures and headers as specified in tables 6.2.2.3.3.3-2 and 6.2.2.3.3.3-3, respectively. Furthermore, this method shall support the response data structures as specified in table 6.2.2.3.3.3-4, and the different response codes as specified in tables 6.2.2.3.3.3-5 and 6.2.2.3.3.3-6, respectively.

Table 6.2.2.3.3.3-2: Data structures supported by the DELETE request body on this resource

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | P | Cardinality | Description |
|  |  |  |  |

Table 6.2.2.3.3.3-3: Headers supported for DELETE requests on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP request header | Data type | P | Cardinality | Description |
| Authorization | string | M | 1 | For authentication of the Provisioning AF (see NOTE). |
| Origin | string | O | 0..1 | Indicates the origin of the requester.) |
| NOTE: If OAuth2.0 authorization is used the value is *Bearer* followed by a string representing the access token, see section 2.1 of RFC 6750 [8]. | | | | |

Table 6.2.2.3.3.3-4: Data structures supported by the DELETE response body on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data type | P | Cardinality | Response  codes | Description |
| n/a |  |  | 204 No Content | Success case: The Data Reporting Provisioning Session resource matching the sessionId was destroyed at the Data Collection AF. |
| ProblemDetails | O | 0..1 | 307 Temporary Redirect | Temporary redirection during Data Reporting Provisioning Session destruction. The response shall include a Location header field containing an alternative URL of the resource located in another Data Collection AF (service) instance.  Applicable if the feature "ES3XX" as defined in TS 29.502 [11] is supported. |
| ProblemDetails | O | 0..1 | 308 Permanent Redirect | Permanent redirection during Data Reporting Provisioning Session destruction. The response shall include a Location header field containing an alternative URL of the resource located in another Data Collection AF (service) instance.  Applicable if the feature "ES3XX" is supported. |
| ProblemDetails | O | 0..1 | 404 Not Found | The Data Reporting Provisioning Session resource does not exist (see NOTE 2). |
| NOTE 1: The mandatory HTTP error status codes for the DELETE method listed in table 5.2.7.1-1 of TS 29.500 [9] also apply.  NOTE 2: Failure cases are described in subclause 6.2.4. | | | | |

Table 6.2.2.3.3.3-5: Headers supported by the 204 response code on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP response header | Data type | P | Cardinality | Description |
| Access-Control-Allow-Origin | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header. |
| Access-Control-Allow-Methods | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: POST, PUT, DELETE. |
| Access-Control-Expose-Headers | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: Location. |

Table 6.2.2.3.3.3-6 Headers supported by the 307 and 308 response codes on this resource

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| HTTP response header | Data type | P | Cardinality | Description |
| Location | string | M | 1 | An alternative URL of the resource located in another Data Collection AF (service) instance. |
| 3gpp-Sbi-Target-Nf-Id | string | O | 0..1 | Identifier of the target NF (service) instance towards which the request is redirected |
| Access-Control-Allow-Origin | string | O | 0..1 | Part of CORS [10].Supplied if the request included the Origin header. |
| Access-Control-Allow-Methods | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: POST, PUT, *PATCH,* DELETE. |
| Access-Control-Expose-Headers | string | O | 0..1 | Part of CORS [10]. Supplied if the request included the Origin header.  Valid values: Location. |

### 6.2.3 Data model

#### 6.2.3.1 General

Table 6.2.3.1-1 specifies the data types used by the Ndcaf\_DataReportingProvisioning\_‌CreateSession, Ndcaf\_DataReportingProvisioning\_‌Retrieve‌Session, Ndcaf\_DataReportingProvisioning\_‌UpdateSession and Ndcaf\_DataReportingProvisioning\_‌DestroySession operations.

Table 6.2.3.1-1: Data types specific to Ndcaf\_DataReportingProvisioning\_CreateSession, Ndcaf\_DataReportingProvisioning\_RetrieveSession, Ndcaf\_DataReportingProvisioning\_UpdateSession and Ndcaf\_DataReportingProvisioning\_DestroySession operations

|  |  |  |
| --- | --- | --- |
| Data type | Clause defined | Description |
| DataReportingProvisioningSession | 6.2.3.2.1 | Configuration by the Data Collection AF of the Provisioning AF, specifying the data to be collected, processed and reported via Event exposure. |

Table 6.2.3.1-2 specifies data types re-used from other specifications by the Ndcaf\_DataReportingProvisioning\_CreateSessions, Ndcaf\_DataReportingProvisioning\_RetrieveSession, Ndcaf\_DataReportingProvisioning\_UpdateSession and Ndcaf\_DataReportingProvisioning\_‌Destroy‌Session operations, including a reference to their respective specifications.

Table 6.2.3.1-2: Externally defined data types used by Ndcaf\_DataReportingProvisioning\_CreateSession, Ndcaf\_DataReportingProvisioning\_RetrieveSession, Ndcaf\_DataReportingProvisioning\_UpdateSession and Ndcaf\_DataReportingProvisioning\_DestroySession operations

|  |  |  |
| --- | --- | --- |
| Data type | Comments | Reference |
| AfEvent | Identifies a type of event. | TS 29.517 [5] |
| ApplicationId | Identifies the reporting application. | TS 29.571 [12] |
| DateTime | A point in time, expressed as an ISO 8601 [X] date and time. |
| DurationSec | A period of time, expressed in seconds. |
| Double |  |
| Float |  |
| Int32 |  |
| Int64 |  |
| Uint16 |  |
| Uint32 |  |
| Uint64 |  |
| Uinteger |  |

#### 6.2.3.2 Structured data types

##### 6.2.3.2.1 DataReportingProvisioningSession resource type

Table 6.2.3.2.1-1: Definition of DataReportingProvisioningSession resource type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Property name | Data type | Cardinality | Usage | Description |
| provisioningSessionId | string | 1..1 | C: R R: RO U: RO | A unique identifier for this Data Reporting Provisioning Session. |
| aspId | AspId | 1..1 | C: W R: RO U: RO | The identity of the Application Service Provider (as specified in clause 5.6.2.3 of TS 29.514 [Y]) whose Provisioning AF is responsible for this Data Reporting Provisioning Session. |
| externalApplicationId | ApplicationID | 1..1 | C: RW R: RO U: RO | The external application identifier (TS 29.571 [12]), nominated by the Provisioning AF, to which this Data Reporting Provisioning Session pertains, and which is present in data reports submitted to the Data Collection AF.  This property may also be used by the Event Consumer AF (located outside trusted domain) to subscribe to events in the Data Collection AF (located inside trusted domain). |
| internalApplicationId | ApplicationID | 0..1 | C: RW R: RO U: RO | The internal application identifier (see TS 29.571 [12]) to be used by event consumers inside the trusted domain (including the NWDAF, the Event Consumer AF and the NEF) when subscribing to events in the Data Collection AF.  This shall be provided by a Provisioning AF deployed inside the trusted domain when it creates a Data Reporting Provisioning. When the Provisioning AF is deployed outside the trusted domain, the NEF shall supply this property on behalf of the Provisioning AF by translating the externalApplicationId value supplied above into the corresponding internal application identifier here.  Always present when this Data Reporting Provisioning Session is returned to an entity inside the trusted domain. Never present when the Data Reporting Provisioning Session is returned to an entity outside the trusted domain. |
| eventId | AfEvent | 1..1 | C: RO R: RO U: RO | The type of event to which this Data Reporting Provisioning Session pertains. (See clause 5.6.3.3 of TS 29.517 [5].) |
| dataReportingConfigurationIds | Array(ResourceId) | 0..1 | C: — R: RO U: RO | A set of identifiers for Data Reporting Configurations currently associated with this Data Reporting Provisioning Session. |

### 6.2.4 Error handling

### 6.2.5 Mediation by NEF

NEXT CHANGE

#### 6.3.3.2 DataAccessProfile type

The DataAccessProfile type is defined in table 6.3.3.2-1.

Table 6.3.3.2-1 Definition of DataAccessProfile type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Property name | Data type | Cardinality | Usage | Description |
| *targetEventConsumer‌Types* | Array(Event‌Consumer‌Type) | 1..1 | C:RW  U:RW | The set of Event consumer types (see clause 6.3.3.3) to which this Data Access Profile is targeted.  If the set is empty, this Data Access Profile applies to all types of Event consumer. |
| parameters | Array(String) | 1..1 | C:RW  U:RW | The set of collected UE data parameters for which these restrictions apply.  Each Event ID shall define a controlled vocabulary to uniquely identify its UE data parameters.  If the set is empty, the restrictions apply to all parameters for the Event ID of the parent Data Reporting Configuration. |
| timeAccessRestrictions | Object | 0..1 | C:RW  U:RW | Configuration for access restrictions along the time dimension. |
| duration | DurationSec | 1..1 | C:RW  U:RW | The period of time over which access is to be aggregated. |
| aggregationFunctions | Array(Data‌Aggregation‌Function‌Type) | 1..1 | C:RW  U:RW | An ordered, non-empty list of aggregation functions (see clause 6.3.3.4) applied to the event data prior to exposure to event consumers. |
| userAccessRestrictions | Object | 0..1 | C:RW  U:RW | Configuration for access restrictions along the user dimension. |
| groupIds | Array(GroupId) | 1..1 | C:RW  U:RW | Identifiers of the UE groups over which access is to be aggregated. |
| userIds | Array(Gpsi) or Array(Supi) | 1..1 | C:RW  U:RW | Identifiers of the UEs comprising a group over which access is to be aggregated. |
| aggregationFunctions | Array(Data‌Aggregation‌Function‌Type) | 1..1 | C:RW  U:RW | An ordered, non-empty list of aggregation functions (see clause 6.3.3.4) applied to the event data prior to exposure to event consumers. |
| locationAccessRestrictions | Object | 0..1 | C:RW  U:RW | Configuration for access restrictions along the location dimension |
| locationAreas | Array(Location‌Area‌5G) | 1..1 | C:RW  U:RW | Identifiers of geographical areas over which access is to be aggregated. Event data is grouped by the location of the UE during the data collection. |
| aggregationFunctions | Array(Data‌Aggregation‌Function‌Type) | 1..1 | C:RW  U:RW | An ordered, non-empty list of aggregation functions (see clause 6.3.3.4) applied to the event data prior to exposure to event consumers. |
| NOTE: Data types DurationSec, GroupId, Gpsi, Supi and LocationArea5G are defined in TS29.571[13]. | | | | |

#### 6.3.3.3 EventConsumerType enumeration

Table 7.11.3.3‑1: Definition of EventConsumerType enumeration

|  |  |
| --- | --- |
| Enumeration value | Description |
| NWDAF | The Network Data Analytics Function is the Event Consumer. |
| EVENT\_CONSUMER\_AF | The Event Consumer AF is the Event Consumer. |
| NEF | The Network Exposure Function is the Event Consumer. |

#### 6.3.3.4 DataAggregationFunctionType enumeration

Enumeration of the DataAggregationFunctionType is defined in table 6.3.3.4-1.

Table 6.3.3.4-1 Enumeration of DataAggregationFunctionType

|  |  |
| --- | --- |
| Enumeration value | Description |
| NULL | No aggregation is applied: all values of the UE data parameter(s) are exposed to event consumers. |
| COUNT | The number of observed events over the indicated time period or the indicated set of users or the indicated set of locations is exposed to event consumers. |
| MEAN | The mean average of the values of the UE data parameter(s) over the indicated time period or the indicated set of users or the indicated set of locations is exposed to event consumers. |
| MAXIMUM | The maximum observed value of the UE data parameter(s) over the indicated time period or the indicated set of users or the indicated set of locations is exposed to event consumers. |
| MINIMUM | The minimum observed value of the UE data parameter(s) over the indicated time period or the indicated set of users or the indicated set of locations is exposed to event consumers. |
| SUM | The sum of the values of the UE data parameter(s) over the indicated time period or the indicated set of users or the indicated set of locations is exposed to event consumers. |

NEXT CHANGE

#### 7.2.3.2 Structured data types

##### 7.2.3.2.1 DataReportingSession resource type

Table 7.2.3.2.1-1: Definition of DataReportingSession resource type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Property name | Data type | Cardinality | Usage | Description |
| sessionId | string | 1 | C: RO R: RO U: RO | Unique identifier for this Data Reporting Session assigned by the Data Collection AF. |
| externalApplicationId | ApplicationID | 1 | C: RW R: RO U: RW | The external application identifier, nominated by the data collection client, to which this Data Reporting Session pertains. |
| supportedDomains | array(DataDomain) | 1 | C: RW R: RO U: RW | Set of domains for which the data collection client declares that it is able to report UE data. (See clause 7.2.3.3.1).  An empty array indicates that no UE data can currently be reported. |
| reportingConditions | map(DataDomain -> array(ReportingCondition)) | 1..1 | C: —  R: RO  U: RO | A map, signalled by the Data Collection AF, specifying for each reporting domain listed the set of conditions (see clause 7.2.3.2.2) under which the data collection client reports UE data.  The indices of the map shall be a subset of the reporting domains declared by the data collection client in supportedDomains.  If the array for a particular index in the map is empty, UE data reporting shall be disabled for the indicated domain. |

##### 7.2.3.2.2 ReportingCondition type

Table 7.2.3.2.2-1: Definition of ReportingCondition type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Property name | Data type | P | Cardinality | Description |
| type | ReportingConditionType | M | 1 | Type of reporting condition (see clause 7.2.3.3.2). |
| period | DurationSec | C | 0..1 | The time period between UE data reports.  Only present when type is INTERVAL. |
| parameter | string | C | 0..1 | Identifies the parameter that triggers a UE data report when it crosses the value threshold.  Only present when type is THRESHOLD. |
| threshold | Double, Float, Int32, Int64, Uint16, Uint32, Uint64, or Uinteger | C | 0..1 | The value that parameter must cross to trigger a UE data report.  Only present when type is THRESHOLD. |
| reportWhenBelow | boolean | C | 0..1 | The direction in which the threshold must be crossed to trigger a UE data report.  If true, a report is triggered when the value of parameter drops below threshold.  If false, a report is triggered when the value of parameter exceeds threshold.  Only present when type is THRESHOLD. |
| eventTrigger | ReportingEventTrigger | C | 0..1 | The type of event that triggers a UE data report (see clause 7.2.3.3.3).  Only present when type is EVENT. |

NEXT CHANGE

##### 7.2.3.3.2 ReportingConditionType enumeration

Table 7.2.3.3.2-1: ReportingConditionType enumeration

|  |  |
| --- | --- |
| Enumeration value | Description |
| INTERVAL | Report at a regular interval. |
| THRESHOLD | Report when a threshold is passed. |
| EVENT | Report on event. |

NEXT CHANGE

##### 7.2.3.3.3 ReportingEventTrigger enumeration

This clause lists the possible events (EVENT in table 7.2.3.3.2-1) that can be used to trigger a data report.

Table 7.2.3.3.3-1: ReportingEventTrigger enumeration

|  |  |
| --- | --- |
| Enumeration value | Description |
| DESTINATION | A new destination has been recorded (refer to clause A.7). |

END OF CHANGES