**3GPP TSG-CT WG3 Meeting #142 *C3-253557***

**Gothenburg, SE, 25 - 29 August 2025**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.549** | **CR** | **0450** | **rev** | **-** | **Current version:** | **19.3.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | DN energy analytics service procedure | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Lenovo | | | | | | | | | |
| ***Source to TSG:*** | C3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | AIML\_App | | | | |  | ***Date:*** | | | 2025-08-07 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Stage 2 describes DN energy analytics service in TS 23.482. Therefore stage 3 for DN energy analytics service procedure is needed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Added Stage 3 for DN energy analytics service procedure. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | DN energy analytics service procedure does not exist. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 3.2, 5.1, 5.11.X (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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's revision history:*** | |  | | | | | | | | |

\* \* \* Next Change \* \* \* \*

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

5GS 5G System

ADAE Application Data Analytics Enablement

A-ADRF Application layer - Analytical Data Repository Function

A-DCCF Application layer - Data Collection and Coordination Function

ADAES ADAE Server

AEF API Exposing Function

API Application Programming Interface

BDT Background Data Transfer

DA Digital Asset

DN Data Network

DNAI Data Network Access Identifier

DNN Data Network Name

DS-TT Device-Side TSN Translator

EAS Eadge Application Server

EES Edge Enabler Server

JSON JavaScript Object Notation

NDS Network Domain Security

NDS/IP NDS for IP based protocols

NRM Network Resource Management

NSCE Network Slice Capability Enablement

PLMN Public Land Mobile Network

REST Representational State Transfer

SAn Spatial Anchors

SCEF Service Capability Exposure Function

SCS Service Capability Server

SR Short Range

SEAL Service Enabler Architecture Layer for Verticals

SEALDD SEAL Data Delivery

SM Spatial Map

TMGI Temporary Mobile Group Identity

TSC Time Sensitive Communication

TSN Time Sensitive Networking

UE User Equipment

VAL Vertical Application Layer

UASS UAS Application Specific Server

\* \* \* Next Change \* \* \* \*

## 5.1 Introduction of SEAL services

The table 5.1-1 lists the SEAL server APIs below the service name. A service description clause for each API gives a general description of the related API.

Table 5.1-1: List of SEAL Service APIs

|  |  |  |  |
| --- | --- | --- | --- |
| Service Name | Service Operations | Operation Semantics | Consumer(s) |
| SS\_LocationReporting | Create\_Trigger\_Location\_Reporting | Request/ Response | VAL server |
| Fetch\_Location\_Report\_Trigger | Request/Response | VAL server |
| Update\_Trigger\_Location\_Reporting | Request/ Response | VAL server |
| Cancel\_Trigger\_Location\_Reporting | Request/ Response | VAL server |
| Notify\_Trigger\_Location\_Reporting | Notify | VAL server |
| Notify\_Adaptive\_Configuration | Notify | VAL server |
| SS\_LocationInfoEvent | Subscribe\_Location\_Info | Subscribe/Notify | VAL server |
| Update\_Location\_Info\_Subscription | VAL server |
| Unsubscribe\_Location\_Info | VAL server |
| Notify\_Location\_Info | VAL server |
| SS\_LocationInfoRetrieval | Obtain\_Location\_Info | Request/ Response | VAL server |
| SS\_LocationAreaInfoRetrieval | Obtain\_UEs\_Info | Request/ Response | VAL server |
| SS\_LocationMonitoring | Subscribe\_Location\_Monitoring | Subscribe/Notify | VAL server |
| Update\_Location\_Monitoring\_Subscription |
| Unsubscribe\_Location\_Monitoring |
| Notify\_Location\_Monitoring\_Events |
| SS\_LocationAreaMonitoring | Subscribe\_Location\_Area\_Monitoring | Subscribe/Notify | VAL server |
| Notify\_Location\_Area\_Monitoring\_Events |
| Update\_Location\_Area\_Monitoring\_Subscribe |
| Unsubscribe\_Location\_Area\_Monitoring |
| SS\_VALServiceAreaConfiguration | Configure\_VAL\_Service\_Area | Request/Response | VAL server |
| Obtain\_VAL\_Service\_Area | Request/Response | VAL server |
| Update\_VAL\_Service\_Area | Request/Response | VAL server |
| Delete\_VAL\_Service\_Area | Request/Response | VAL server |
| Subscribe\_VAL\_Service\_Area\_Change\_Event | Subscribe/Notify | SEAL server |
| Update\_Subscription\_VAL\_Service\_Area\_Change\_Event |
| Unsubscribe\_VAL\_Service\_Area\_Change\_Event |
| Notify\_VAL\_Service\_Area\_Change\_Event |
| SS\_LocationHistoryInfoEvent | Create | Request/Response | e.g., VAL Server |
| Update | e.g., VAL Server |
| Delete | e.g., VAL Server |
| Query | e.g., VAL Server |
| SS\_ConfirmLocation | Subscribe | Subscribe/Notify | e.g., VAL Server |
| Notify | LM Server |
| SS\_SLPositioningManagement | Subscribe | Subscribe/Notify | VAL server |
| Notify | VAL Server |
| SRInfoRequest | Request/Response | VAL Server |
| SS\_GroupManagement | Query\_Group\_Info | Request/ Response | VAL server |
| Update\_Group\_Info | Request/ Response | VAL server |
| Create\_Group | Request/ Response | VAL server |
| Delete\_Group | Request/Response | VAL server |
| SS\_GroupManagementEvent | Subscribe\_Group\_Info\_Modification | Subscribe/Notify | VAL server |
| Notify\_Group\_Info\_Modification | VAL server |
| Notify\_Group\_Creation | VAL server |
| SS\_UserProfileRetrieval | Obtain\_User\_Profile | Request/ Response | VAL server |
| SS\_VALServiceData | Obtain\_VAL\_Service\_Data | Request/Response | SEAL server |
| SS\_UserProfileEvent | Subscribe\_User\_Profile\_Update | Subscribe/Notify | VAL server |
| Notify\_User\_Profile\_Update | VAL server |
| SS\_NetworkResourceAdaptation  (NOTE 3) |  |  |  |
| Reserve\_Network\_Resource | Request/Response | e.g., VAL server, SEALDD Server |
| Reserve\_Network\_Resource\_Modify | Request/Response | e.g., VAL server, SEALDD Server |
| Request\_Multicast\_Resource | Request/Response | e.g., VAL server |
| Notify\_UP\_Delivery\_Mode | Subscribe/Notify | e.g., VAL server |
| Discover\_TSC\_Stream\_Availability | Request/Response | e.g., VAL server |
| Create\_TSC\_Stream | Request/Response | e.g., VAL server |
| Delete\_TSC\_Stream | Request/Response | e.g., VAL server |
| Create\_MBS\_Resource | Request/Response | e.g., VAL server |
| Update\_MBS\_Resource | Request/Response | e.g., VAL server |
| Delete\_MBS\_Resource | Request/Response | e.g., VAL server |
| Activate\_MBS\_Resource | Request/Response | e.g., VAL server |
| Deactivate\_MBS\_Resource | Request/Response | e.g., VAL server |
| Reliable\_Transmission\_Request | Request/Response | e.g., SEALDD Server, VAL Server |
| BDT\_Configuration\_Request | Request/Response | e.g., VAL server, SEALDD Server |
| BDT\_Negotiation\_Notification | Subscribe/Notify | e.g., VAL server, SEALDD Server |
| BDT\_Configuration\_Get | Request/Response | e.g., VAL server, SEALDD Server |
| BDT\_Configuration\_Update | Request/Response | e.g., VAL server, SEALDD Server |
| BDT\_Configuration\_Delete | Request/Response | e.g., VAL server, SEALDD Server |
| Subscribe\_Unified\_Traffic\_Pattern\_and\_Monitoring\_Management | Subscribe/Notify | e.g., VAL server |
| Update\_Unified\_Traffic\_Pattern\_and\_Monitoring\_Management\_Subscription |
| Unsubscribe\_Unified\_Traffic\_Pattern\_and\_Monitoring\_Management |
| Notify\_Unified\_Traffic\_Pattern\_Update |
| SS\_EventsMonitoring | Subscribe\_Monitoring\_Events | Subscribe/Notify | VAL server |
| Notify\_Monitoring\_Events |
| SS\_Events | Subscribe\_Event | Subscribe/Notify | VAL server |
| Notify\_Event | VAL server |
| Unsubscribe\_Event | VAL server |
| Update\_Subscription | VAL server |
| SS\_KeyInfoRetrieval | Obtain\_Key\_Info | Request/Response | VAL server |
| SS\_KMParametersProvisioning | Request | Request/Response | VAL server |
| SS\_NetworkResourceMonitoring | Subscribe\_Unicast\_QoS\_Monitoring\_Data | Subscribe/Notify | VAL server |
| Unsubscribe\_Unicast\_QoS\_Monitoring\_Data | VAL server |
| Notify\_Unicast\_QoS\_Monitoring\_Data | VAL server |
| Obtain\_Unicast\_QoS\_Monitoring\_Data | Request/Response | VAL server |
| Update\_Unicast\_QoS\_Monitoring\_Subscription | VAL server |
| SS\_IdmParameterProvisioning | Provide\_Configuration | Request/Response | VAL server |
| Get\_Configuration |
| Update\_Configuration |
| Delete\_Configuration |
| SS\_ADAE\_VALPerformanceAnalytics | Subscribe\_VAL\_Performance\_Analytics | Subscribe/Notify | VAL server |
| Notify\_VAL\_Performance\_Analytics |
| Unsubscribe\_VAL\_Performance\_Analytics |
| SS\_ADAE\_SlicePerformanceAnalytics API | Subscribe\_Slice\_Performance\_Analytics | Subscribe/Notify | VAL server |
| Notify\_Slice\_Performance\_Analytics |
| Unsubscribe\_Slice\_Performance\_Analytics |
| SS\_ADAE\_Ue2UePerformanceAnalytics | UE-to-UE\_Performance\_Analytics\_Subscribe | Subscribe/Notify | VAL server |
| UE-to-UE\_Performance\_Analytics\_Notify |
| UE-to-UE\_Performance\_Analytics\_Unsubscribe |
| SS\_ADAE\_LocationAccuracyAnalytics | Subscribe\_Location\_Accuracy\_Analytics | Subscribe/Notify | VAL server |
| Notify\_Location\_Accuracy\_Analytics |
| Unsubscribe\_Location\_Accuracy\_Analytics |
| SS\_ADAE\_ServiceApiAnalytics | Subscribe\_Service\_API\_Analytics | Subscribe/Notify | VAL server |
| Notify\_Service\_API\_Analytics |
| Unsubscribe\_Service\_API\_Analytics |
| SS\_ADAE\_SliceUsagePatternAnalytics | Subscribe\_Slice\_Usage\_Pattern\_Analytics | Subscribe/Notify | VAL server, NSCE server |
| Notify\_Slice\_Usage\_Pattern\_Analytics |
| Unsubscribe\_Slice\_Usage\_Pattern\_Analytics |
| Get\_Slice\_Usage\_Stats | Request/Response | VAL server, NSCE server |
| SS\_ADAE\_EdgeLoadAnalytics | Subscribe\_Edge\_Load | Subscribe/Notify | VAL server, EAS, EES |
| Notify\_Edge\_Load |
| Unsubscribe\_Edge\_Load |
| Get\_Edge\_Load\_Data | Request/Response | VAL server, EAS, EES |
| SS\_ADAE\_LocationRelatedUeGroupAnalytics | Subscribe | Subscribe/Notify | e.g. LM Server |
| Notify |
| SS\_ADAE\_CollisionDetectionAnalytics | Subscribe | Subscribe/Notify | e.g., VAL Server, LM Server, UAE Server, UASS |
| Notify |
| SS\_ADAE\_UeRatConnectivityAnalytics | Subscribe | Subscribe/Notify | e.g., VAL Server |
| Subscription\_Update |
| Unsubscribe |
| Notify |
| SS\_ADAE\_ServerToServerPerformanceAnalytics | Subscribe | Subscribe/Notify | e.g., VAL Server, EES |
| Notify |
| SS\_AADRF\_DataManagement | Data\_Storage | Request/Response | ADAE server, A-DCCF |
| SS\_AADRF\_DataManagement\_Subscribe | Subscribe/Notify | ADAE server |
| SS\_AADRF\_DataManagement\_Unsubscribe |
| SS\_AADRF\_DataManagement\_Notify |
| SS\_ADCCF\_DataCollection | Subscribe | Subscribe/Notify | e.g., ADAE server |
| Notify |
| Request | Request/Response | e.g., ADAE server |
| SS\_ADAE\_DN\_energy\_analytics | SS\_ADAE\_DN\_energy\_analytics\_Request | Request/Response | e.g., VAL Server |
| NOTE 1: The service operations of SS\_Events API are reused by the SS\_LocationInfoEvent, SS\_LocationMonitoring, SS\_LocationAreaMonitoring, SS\_GroupManagementEvent, SS\_UserProfileEvent, SS\_EventsMonitoring and SS\_SatelliteSFInfoEvent for events related services.  NOTE 2: The service APIs exposed by the SEALDD Server and the corresponding service operations, operation semantics and service consumers are specified in clause 5 of 3GPP TS 29.548 [35].  NOTE 3: The "Create\_MBS\_Resource", "Update\_MBS\_Resource", "Delete\_MBS\_Resource", "Activate\_MBS\_Resource" and "Deactivate\_MBS\_Resource" service operations correspond to the stage 2 "Request\_Multicast/Broadcast\_Resource", "Update\_Multicast/Broadcast\_Resource", "Delete\_Multicast/Broadcast\_Resource", "Activate\_Multicast\_Resource" and "Deactivate\_Multicast\_Resource" service operations defined in clause 14.4.2 of 3GPP TS 23.434 [2].  NOTE 4: The service APIs exposed by the NSCE Server and the corresponding service operations, operation semantics and service consumers are specified in clause 5 of 3GPP TS 29.435 [42].  NOTE 5: The service APIs exposed by the SAn Server and SM Server, and the corresponding service operations, operation semantics and service consumers are specified in 3GPP TS 29.437 [49].  NOTE 6: The SS\_SLPositioningManagement API is reused by the SS\_SRPositioningInformation API defined in clause 9.4.11 of 3GPP TS 23.434 [2]. | | | |

Table 5.1-2 summarizes the corresponding APIs defined in this specification.

Table 5.1-2: API Descriptions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Service Name** | **Clause** | **Description** | **OpenAPI Specification File** | **apiName** | **Annex** |
| SS\_LocationReporting | 7.1.1 | Report Location Information Service. | TS29549\_SS\_LocationReporting.yaml | ss-lr | A.2 |
| SS\_GroupManagement | 7.2.1 | Group Management Service | TS29549\_SS\_GroupManagement.yaml | ss-gm | A.3 |
| SS\_UserProfileRetrieval | 7.3.1 | User Profile Retrieval Service | TS29549\_SS\_UserProfileRetrieval.yaml | ss-upr | A.4 |
| SS\_NetworkResourceAdaptation | 7.4.1 | Network Resource Adaptation Service | TS29549\_SS\_NetworkResourceAdaptation.yaml | ss-nra | A.5 |
| SS\_Events | 7.5.1 | Events Notify Service | TS29549\_SS\_Events.yaml | ss-events | A.6 |
| SS\_KeyInfoRetrieval  (NOTE 2) | 7.6.1 | Key Information Retrieval Service | TS29549\_SS\_KeyInfoRetrieval.yaml | ss-kir | A.7 |
| SS\_LocationAreaInfoRetrieval | 7.1.2 | Location Area Info Retrieval Service | TS29549\_SS\_LocationAreaInfoRetrieval.yaml | ss-lair | A.8 |
| SS\_NetworkResourceMonitoring | 7.4.2 | Network Resource Monitoring | TS29549\_SS\_NetworkResourceMonitoring.yaml | ss-nrm | A.10 |
| SS\_VALServiceData | 7.3.2 | VAL Service Data Service | TS29549\_SS\_VALServiceData.yaml | ss-vsd | A.11 |
| SS\_VALServiceAreaConfiguration | 7.1.3 | VAL Service Area Configuration Service | TS29549\_SS\_VALServiceAreaConfiguration.yaml | ss-vsac | A.12 |
| SS\_KMParametersProvisioning  (NOTE 3) | 7.6.2 | Key Management Parameters Provisioning Service | TS29549\_SS\_KMParametersProvisioning.yaml | ss-kpp | A.14 |
| SS\_ADAE\_VALPerformanceAnalytics | 7.10.1 | ADAE VAL performance analytics service | TS29549\_SS\_ADAE\_VALPerformanceAnalytics.yaml | ss-adae-pa | A.15 |
| SS\_ADAE\_SlicePerformanceAnalytics | 7.10.2 | ADAE slice specific application performance analytics service | TS29549\_SS\_ADAE\_SlicePerformanceAnalytics.yaml | ss-adae-sspa | A.16 |
| SS\_ADAE\_Ue2UePerformanceAnalytics | 7.10.3 | ADAE UE-to-UE PerformanceAnalytics Service | TS29549\_SS\_ADAE\_Ue2UePerformanceAnalytics.yaml | ss-adae-uupa | A.17 |
| SS\_ADAE\_LocationAccuracyAnalytics | 7.10.4 | ADAE location accuracy performance analytics service | TS29549\_SS\_ADAE\_LocationAccuracyAnalytics.yaml | ss-adae-laa | A.18 |
| SS\_ADAE\_ServiceApiAnalytics | 7.10.5 | ADAE service API analytics service | TS29549\_SS\_ADAE\_ServiceApiAnalytics.yaml | ss-adae-sa | A.19 |
| SS\_ADAE\_SliceUsagePatternAnalytics | 7.10.6 | ADAE slice usage pattern analytics service | TS29549\_SS\_ADAE\_SliceUsagePatternAnalytics.yaml | ss-adae-sup | A.20 |
| SS\_ADAE\_EdgeLoadAnalytics | 7.10.7 | Edge load analytics service | TS29549\_SS\_ADAE\_EdgeLoadAnalytics.yaml | ss-adae-el | A.21 |
| SS\_AADRF\_DataManagement | 7.10.8 | A-ADRF Data Management Service | TS29549\_SS\_AADRF\_DataManagement.yaml | ss-aadrf-datamanagement | A.22 |
| SS\_ADAE\_LocationRelatedUeGroupAnalytics | 7.10.9 | ADAE Location-Related UE Group Analytics service | TS29549\_SS\_ADAE\_LocationRelatedUeGroupAnalytics.yaml | ss-adae-lruga | A.23 |
| SS\_ADAE\_CollisionDetectionAnalytics | 7.10.10 | ADAE Collision Detection Analytics service | TS29549\_SS\_ADAE\_CollisionDetectionAnalytics.yaml | ss-adae-cda | A.24 |
| SS\_LocationHistoryInfoEvent | 7.1.4 | Location Tracing Configuration Management | TS29549\_SS\_LocationHistoryInfoEvent.yaml | ss-lhie | A.25 |
| SS\_ConfirmLocation | 7.1.5 | Location Confirmation Service Management | TS29549\_SS\_ConfirmLocation.yaml | ss-cl | A.26 |
| SS\_SLPositioningManagement | 7.1.6 | SL Positioning Management service | TS29549\_SS\_SLPositioningManagement.yaml | ss-slpm | A.27 |
| SS\_ADCCF\_DataCollection | 7.10.13 | A-DCCF Data Collection service | TS29549\_SS\_ADCCF\_DataCollection.yaml | ss-adccf-dc | A.29 |
| SS\_ADAE\_ServerToServerPerformanceAnalytics | 7.10.14 | ADAE Server-to-Server Performance Analytics service | TS29549\_SS\_ADAE\_ServerToServerPerformanceAnalytics.yaml | ss-adae-sspa | A.30 |
| SS\_ADAE\_UeRatConnectivityAnalytics | 7.10.12 | ADAE UE RAT Connectivity Analytics service | TS29549\_SS\_ADAE\_UeRatConnectivityAnalytics.yaml | ss-adae-uerat | A.31 |
| SS\_ADAE\_DN\_energy\_analytics | 7.10.X | DN energy analytics request service | TS29482\_SS\_ADAE\_DN\_energy\_analytics.yaml | ss-adae-dnea | A.X |
| NOTE 1: The APIs exposed by the SEALDD Server are specified in clause 5 of 3GPP TS 29.548 [35].  NOTE 2: The stage 2 requirements for this API are defined in clause 5.3 of 3GPP TS 33.434 [26].  NOTE 3: The stage 2 requirements for this API are defined in clause 5.8 of 3GPP TS 33.434 [26].  NOTE 4: The APIs exposed by the NSCE Server are specified in clause 5 of 3GPP TS 29.435 [42].  NOTE 5: The APIs exposed by the SAn Server and SM Server are specified in 3GPP TS 29.437 [49]. | | | | | |

\* \* \* Next Change \* \* \* \*

### 5.11.X SS\_ADAE\_DN\_energy\_analytics Service

#### 5.11.X.1 Service Description

The SS\_ADAE\_DN\_energy\_analytics Service, exposed by the VAL Server, EAS, or EES, enables a service consumer to:

- request ADAE Server to provide DN energy efficiency and consumption analytics by using filter criteria.

#### 5.11.X.2 Service Operations

##### 5.11.X.2.1 Introduction

The service operations defined for the SS\_ADAE\_DN\_energy\_analytics API are shown in the table 5.11.X.2.1-1.

Table 5.11.X.2.1-1: Service operations of the SS\_ADAE\_DN\_energy\_analytics API

|  |  |  |
| --- | --- | --- |
| Service Operation Name | Description | Initiated by |
| SS\_ADAE\_DN\_energy\_analytics\_Request | This service operation enables a service consumer to obtain DN energy efficiency and consumption analytics. | e.g., VAL Server |

##### 5.11.X.2.2 SS\_ADAE\_DN\_energy\_analytics\_Request

5.11.X.2.2.1 General

This service operation is used by a service consumer to perform ADAE DN Energy Analytics Request at the ADAE Server.

The following procedures are supported by the "SS\_ADAE\_DN\_energy\_analytics\_Request" service operation:

- ADAE DN Energy Analytics Request.

5.11.X.2.2.2 ADAE DN Energy Analytics Request

Figure 5.11.X.2.2.2-1 depicts a scenario where a service consumer sends a request to the ADAE Server to request ADAE DN Energy Analytic (see also clause 8.18 of 3GPP°TS°23.436°[38]).



Figure 5.11.X.2.2.2-1: Procedure for ADAE DN Energy Analytics Request

1. In order to request to ADAE DN energy analytics, the service consumer shall send an HTTP GET request to the ADAE server targeting the URI of the "ADAE DN Energy Analytics" resource.

2a. Upon success, the ADAE Server shall respond with an HTTP "200 OK" status code with the response body containing the DNEnergyAnalytics data structure.

NOTE: ADAE Server calculates the energy efficiency and consumption analytics by using the trained ML model based on AIMLES\_MLModelTraining service, obtained from AIMLE Server.

2b. On failure, the appropriate HTTP status code indicating the error shall be returned and appropriate additional error information should be returned in the HTTP GET response body, as specified in clause 7.10.X.7.

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