**3GPP TSG- Meeting #C3-242359**

**Changsha, China, –**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** | **1253** | **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:*** | Resolve the remaining NSCALE related EN | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | |
|  |  | | | | | | | | |
| ***Work item code:*** | NSCALE | | | | |  | ***Date:*** | | 2024-04-08 |
|  |  | | | |  | |  | |  |
| ***Category:*** | **B** |  | | | | | ***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:*** | | | C3-241720 (CR#1187) agreed last meeting specifies the content of the network slice load analytics infirmation that can be exposed outside the 5GC, i.e., to the NSCE Server and later the VAL Server in this case, as per the reply LS from SA2 on this topic in S2-2403703 and the corresponding agreed CR#1061 to TS 23.288 (S2-2403700). The only remaining work to do is hence to resolve the related Edito's Note in clause 5.6.3.3.4. | | | | | | |
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| ***Summary of change:*** | | | This CR proposes to:   * Resolve the related Edito's Note in clause 5.6.3.3.4. | | | | | | |
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| ***Consequences if not approved:*** | | | * The support of network slice load analytics information reporting to the NSCE Server is not completed in stage 3. | | | | | | |
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| ***Clauses affected:*** | | 5.6.3.3.4 | | | | | | | |
|  | |  | | | | | | | |
|  | | **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 OpenAPI descriptions of the APIs defined in this specification. | | | | | | | |
|  | |  | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | |

\* \* \* \* Start of changes \* \* \* \*

##### 5.6.3.3.4 Type: AnalyticsEventNotif

Table 5.6.3.3.4-1: Definition of type AnalyticsEventNotif

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Attribute name | | Data type | P | Cardinality | Description | Applicability | |
| analyEvent | | AnalyticsEvent | M | 1 | Detected analytics event. |  | |
| expiry | | DateTime | O | 0..1 | Defines the expiration time after which the analytics information will become invalid. (NOTE 2) |  | |
| timeStamp | | DateTime | M | 1 | Time at which the event is observed. |  | |
| failNotifyCode | | NwdafFailureCode | C | 0..1 | Identifies the failure reason for the event notification.  It shall only be included if the event notification is failed or the analytics information is not ready. (NOTE 1) | EneNA | |
| rvWaitTime | | DurationSec | O | 0..1 | Indicates a recommended time interval (in seconds) which is used to determine the time when analytics information is needed in similar future event subscriptions. It may only be included if the "failNotifyCode" attribute sets to "UNSATISFIED\_REQUESTED\_ANALYTICS\_TIME". | EneNA | |
| ueMobilityInfos | | array(UeMobilityExposure) | C | 1..N | Contains the UE mobility information.  Shall be present if the "analyEvent" attribute sets to "UE\_MOBILITY". | Ue\_Mobility | |
| ueCommInfos | | array(UeCommunication) | C | 1..N | Contains the application communication information.  Shall be present if the "analyEvent" attribute sets to "UE\_COMM".  (NOTE 5) | Ue\_Communication | |
| abnormalInfos | | array(AbnormalExposure) | C | 1..N | Contains the user's abnormal behavior information.  Shall be present if the "analyEvent" attribute sets to "ABNORMAL\_BEHAVIOR". | Abnormal\_Behavior | |
| congestInfos | | array(CongestInfo) | C | 1..N | Contains the UE's user data congestion information.  Shall be present if the "analyEvent" attribute sets to "CONGESTION". | Congestion | |
| nwPerfInfos | | array(NetworkPerfExposure) | C | 1..N | Contains the network performance information.  Shall be present if the "analyEvent" attribute is set to "NETWORK\_PERFORMANCE". | Network\_Performance | |
| qosSustainInfos | | array(QosSustainabilityExposure) | C | 1..N | Contains the QoS sustainability information.  Shall be present if the "analyEvent" attribute is set to "QOS\_SUSTAINABILITY". | QoS\_Sustainability | |
| disperInfos | | array(DispersionInfo) | C | 1..N | Contains the Dispersion information.  Shall be present if the "analyEvent" attribute is set to "DISPERSION". | Dispersion | |
| dnPerfInfos | | array(DnPerfInfo) | C | 1..N | Contains the DN performance information.  Shall be present if the "analyEvent" attribute is set to "DN\_PERFORMANCE".  (NOTE 4) | DnPerformance | |
| svcExps | | array(ServiceExperienceInfo) | C | 1..N | Contains the service experience information.  Shall be present if the "analyEvent" attribute is set to "SERVICE\_EXPERIENCE". | ServiceExperience | |
| timeStampGen | | DateTime | O | 0..1 | It defines the timestamp of analytics generation. | EneNA | |
| start | | DateTime | O | 0..1 | It defines the start time of which the analytics information will become valid. (NOTE 2) | EneNA | |
| locArea | | LocationArea5G | O | 0..1 | Identification of locationarea to which the notification applies within the subscribed location area.  (NOTE 3) | Abnormal\_BehaviorExt\_eNA  DnPerformanceExt\_eNA  ServiceExperienceExt\_eNA  UeCommunicationExt\_eNA  E2eDataVolTransTime  NSLoad | |
| dataVlTrnsTmIfs | | array(E2eDataVolTransTimeInfo) | C | 1..N | E2E data volume transfer time information.  Shall be present if the subscribed event is "E2E\_DATA\_VOL\_TRANS\_TIME". | E2eDataVolTransTime | |
| accuInfo | AccuracyInfo | C | 0..1 | The analytics accuracy information. It shall be provided when accuracyReq was provided in the subscription request. | | AnalyticsAccuracy | |
| movBehavInfos | array(MovBehavInfo) | C | 1..N | The Movement Behaviour information.  Shall be present if the "analyEvent" attribute is set to "MOVEMENT\_BEHAVIOUR". | | MovementBehaviour | |
| relProxInfos | array(RelProxInfo) | C | 1..N | The Relative Proximity information.  Shall be present if the "analyEvent" attribute is set to "RELATIVE\_PROXIMITY". The "supis" attribute inside the RelProxInfo data type is not applicable in this API and only the "gpsis" attribute can be used. | | RelativeProximity | |
| wlanInfos | array(WlanPerformInfo) | C | 1..N | The WLAN performance related information.  Shall be present if the "analyEvent" attribute is set to "WLAN\_PERFORMANCE". | | WlanPerformance\_AIML | |
| pauseInd | boolean | O | 0..1 | Pause analytics consumption indication applicable on analytics ID level. Set to "true" to indicate the consumer to stop the consumption of the analytics because the accuracy level needs to be increased.  Default value is "false" if omitted. | | AnalyticsAccuracy | |
| resumeInd | boolean | O | 0..1 | Resume analytics consumption indication applicable on analytics ID level. Set to "true" to indicate the consumer to resume the consumption of the analytics because the accuracy has been improved.  Default value is "false" if omitted. | | AnalyticsAccuracy | |
| nsiLoadLevelData | array(NsiLoadLevelInfo) | C | 1..N | Contains the network slice load level analytics information for each S-NSSAI.  This attribute shall be present if the subscribed event is "NS\_LOAD\_LEVEL".  (NOTE 6) | | NSLoad | |
| NOTE 1: The values of "BOTH\_STAT\_PRED\_NOT\_ALLOWED" of the NwdafFailureCode data type is not applicable for the "failNotifyCode" attribute. The value of "UNAVAILABLE\_DATA" of the NwdafFailureCode data type is applicable for the "failNotifyCode" attribute only when the "StatisticsFailure" feature is supported.  NOTE 2: If the "start" attribute and the "expiry" attribute are both provided, the DateTime of the "expiry" attribute shall not be earlier than the DateTime of the "start" attribute.  NOTE 3: The NetworkAreaInfo data type within the "locArea" attribute is not applicable for the untrusted AF unless the corresponding SLA is agreed between the operator and application provider. The NEF may translate the network area information (received from the NWDAF, e.g. for "ABNORMAL\_BEHAVIOR", "DN\_PERFORMANCE", "SERVICE\_EXPERIENCE", "UE\_COMM" or "NS\_LOAD\_LEVEL" event) to an external representation of the area, which is provided within the "locArea" attribute.  NOTE 4: The "minTrafficRate", "aggTrafficRate", "varTrafficRate", "trafRateUeIds", "avePacketDelay", "maxPacketDelay", "varPacketDelay", "packDelayUeIds", "maxPacketLossRate", "varPacketLossRate" and "packetLossUeIds" attribute(s) within the DnPerfInfo data type is applicable only if the "DnPerformanceExt\_AIML” feature is supported.  NOTE 5: If the "UeMobilityExt\_eNA" feature is supported and the "locGranularity" attribute value "LON\_AND\_LAT\_LEVEL" is subscribed, the "geoLoc" attribute within the "UeMobility" type may be provided to report the geographical location (longitude and latitude level).  NOTE 6: When the "NSLoad" feature is supported, the "nsiId" attribute and NSI related analytics information within the NsiLoadLevelInfo data structure is not applicable for the "NS\_LOAD\_LEVEL" event within each array element of this attribute. | | | | | | | |

\* \* \* \* End of changes \* \* \* \*