**3GPP TSG- Meeting # *r1***

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** | **1** | **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:*** |  | | | | | | | | | |
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| ***Source to WG:*** | , Nokia, Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***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). | | | | | | | | *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:*** | | In *Table 5.3.2.3.2-1: Definition of type MonitoringEventReport of 3GPP TS 29.122*, the attribute reachabilityType contains data type definition as ReachabilityType. The table description only have the reference to TS 29.336 clause 8.4.20 which is only applied for 4G, missing the corresponding 5G reference description.  **Table 5.3.2.3.2-1: Definition of type MonitoringEventReport of 3GPP TS 29.122** | | | | | | | | |
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| ***Summary of change:*** | | reachabilityType attribute in MonitoringEventReport description is updated. | | | | | | | | |
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| ***Consequences if not approved:*** | | Missing the 5G reference for the reachability attribute description in the MonitoringEventReport data type will impact 5G related Monitoring Event API implementation. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.3.2.3.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 any OpenAPI description. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | None | | | | | | | | |

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

##### 5.3.2.3.2 Type: MonitoringEventReport

This data type represents a monitoring event notification which is sent from the SCEF to the SCS/AS.

Table 5.3.2.3.2-1: Definition of type MonitoringEventReport

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Attribute name | | Data type | | Cardinality | | Description | | Applicability (NOTE 1) | |
| imeiChange | | AssociationType | | 0..1 | | If "monitoringType" is "CHANGE\_OF\_IMSI\_IMEI\_ASSOCIATION", this parameter shall be included to identify the event of change of IMSI-IMEI or IMSI-IMEISV association is detected.  Refer to 3GPP TS 29.336 [11] Clause 8.4.22. | | Change\_of\_IMSI\_IMEI\_association\_notification | |
| externalId | | ExternalId | | 0..1 | | External identifier.  This attribute may also be present in the monitoring event subscription one-time response message, if the "UEId\_retrieval" feature is supported and the corresponding request message includes the "ueIpAddr" attribute or the "ueMacAddr" attribute.  (NOTE 2) | |  | |
| appId | | string | | 0..1 | | Contains the identifier of the detected application. (NOTE 4) | | AppDetection\_5G | |
| pduSessInfo | | PduSessionInformation | | 0..1 | | Represents the PDU session information related to the detected application.  If "monitoringType" is "APPLICATION\_START" and/or "APPLICATION\_STOP", this attribute shall be present, if available, to indicate the application traffic detection details. | | AppDetection\_5G | |
| idleStatusInfo | | IdleStatusInfo | | 0..1 | | If "idleStatusIndication" in the "MonitoringEventSubscription"sets to "true", this parameter shall be included to indicate the information when the UE transitions into idle mode. | | Ue-reachability\_notification,  Availability\_after\_DDN\_failure\_notification | |
| locationInfo | | LocationInfo | | 0..1 | | If "monitoringType" is "LOCATION\_REPORTING", this parameter shall be included to indicate the user location related information. | | Location\_notification, eLCS | |
| locFailureCause | | LocationFailureCause | | 0..1 | | Indicates the location positioning failure cause. | | eLCS | |
| lossOfConnectReason | | integer | | 0..1 | | If "monitoringType" is "LOSS\_OF\_CONNECTIVITY", this parameter shall be included if available to identify the reason why loss of connectivity is reported.  Refer to 3GPP TS 29.336 [11] Clause 8.4.58. | | Loss\_of\_connectivity\_notification | |
| unavailPerDur | | DurationSec | | 0..1 | | If "monitoringType" is "LOSS\_OF\_CONNECTIVITY", then this parameter shall be included if available to identify the UE’s Unavailability Period Duration. | | Loss\_of\_connectivity\_notification\_5G | |
| maxUEAvailabilityTime | | DateTime | | 0..1 | | If "monitoringType" is "UE\_REACHABILITY", this parameter may be included to identify the timestamp until which a UE using a power saving mechanism is expected to be reachable for SM delivery.  Refer to Clause 5.3.3.22 of 3GPP TS 29.338 [34]. | | Ue-reachability\_notification | |
| msisdn | | Msisdn | | 0..1 | | Identifies the MS internal PSTN/ISDN number.  (NOTE 2) | |  | |
| monitoringType | | MonitoringType | | 1 | | Identifies the type of monitoring type as defined in clause 5.3.2.4.3. | |  | |
| uePerLocationReport | | UePerLocationReport | | 0..1 | | If "monitoringType" is "NUMBER\_OF\_UES\_IN\_AN\_AREA", this parameter shall be included to indicate the number of UEs found at the location.  If "subType" indicates "AERIAL\_UE" subscription type, this parameter shall be included to indicate the number of UAV’s found at the location. | | Number\_of\_UEs\_in\_an\_area\_notification, Number\_of\_UEs\_in\_an\_area\_notification\_5G | |
| plmnId | | PlmnId | | 0..1 | | If "monitoringType" is "ROAMING\_STATUS" and "plmnIIndication" in the "MonitoringEventSubscription" sets to "true", this parameter shall be included to indicate the UE's serving PLMN. | | Roaming\_status\_notification | |
| reachabilityType | | ReachabilityType | | 0..1 | | If "monitoringType" is "UE\_REACHABILITY", this parameter shall be included to identify the reachability of the UE.  Refer to 3GPP TS 29.336 [11] clause 8.4.20 with the REACHABLE\_FOR\_SMS Bit 0 mapping to the "SMS" value or REACHABLE\_FOR\_DATA Bit 1 mapping to the "DATA" value when received from the HSS.  Or refer to 3GPP TS 29.503 [63] clause 6.4.6.3.3 with the received EventType value "UE\_REACHABILITY\_FOR\_SMS" mapping to the "SMS" value or the "UE\_REACHABILITY\_FOR\_DATA" value mapping to the "DATA" value when received from the UDM. | | Ue-reachability\_notification | |
| roamingStatus | | boolean | | 0..1 | | If "monitoringType" is "ROAMING\_STATUS", this parameter shall be set to "true" if the new serving PLMN is different from the HPLMN. Set to false or omitted otherwise. | | Roaming\_status\_notification | |
| failureCause | | FailureCause | | 0..1 | | If "monitoringType" is "COMMUNICATION\_FAILURE", this parameter shall be included to indicate the reason of communication failure. | | Communication\_failure\_notification | |
| eventTime | | DateTime | | 0..1 | | Identifies when the event is detected or received.  Shall be included for each group of UEs. | |  | |
| pdnConnInfoList | | array(PdnConnectionInformation) | | 0..N | | If "monitoringType" is "PDN\_CONNECTIVITY\_STATUS", this parameter shall be included to indicate the PDN connection details. | | Pdn\_connectivity\_status | |
| dddStatus | | DlDataDeliveryStatus | | 0..1 | | If "monitoringType" is "DOWNLINK\_DATA\_DELIVERY\_STATUS", this parameter shall be included to identify the downlink data delivery status detected by the network. | | Downlink\_data\_delivery\_status\_5G | |
| dddTrafDescriptor | | DddTrafficDescriptor | | 0..1 | | If "monitoringType" is "DOWNLINK\_DATA\_DELIVERY\_STATUS", this parameter shall be included to identify the downlink data descriptor impacted by the downlink data delivery status change. | | Downlink\_data\_delivery\_status\_5G | |
| maxWaitTime | | DateTime | | 0..1 | | If "monitoringType" is "DOWNLINK\_DATA\_DELIVERY\_STATUS", this parameter may be included to identify the time before which the data will be buffered. | | Downlink\_data\_delivery\_status\_5G | |
| apiCaps | | array(ApiCapabilityInfo) | | 0..N | | If "monitoringType" is "API\_SUPPORT\_CAPABILITY", this parameter shall be included to indicate the availability of all APIs supported by the serving network or the availability of interested APIs, indicated by the "apiNames" attribute in "MonitoringEventSubscription", supported by the serving network.  If no API is supported by the serving network, an empty apiCaps shall be provided. | | API\_support\_capability\_notification | |
| nSStatusInfo | | SACEventStatus | | 0..1 | | If the "monitoringType" attribute is set to "NUM\_OF\_REGD\_UES" or "NUM\_OF\_ESTD\_PDU\_SESSIONS", this parameter shall be included to indicate the current network slice status information for the concerned network slice.  (NOTE 3) | | NSAC | |
| afServiceId | | string | | 0..1 | | Contains the identifier of the service to which the NSAC reporting is related.  It shall be provided only if it is present in the related NSAC subscription request and the "monitoringType" attribute is set to either "NUM\_OF\_REGD\_UES" or "NUM\_OF\_ESTD\_PDU\_SESSIONS". | | NSAC | |
| servLevelDevId | | string | | 0..1 | | If "monitoringType" is "AREA\_OF\_INTEREST" or "NUMBER\_OF\_UES\_IN\_AN\_AREA" and "subType" indicate "AERIAL\_UE", this parameter may be included to identify the UAV. | | UAV | |
| uavPresInd | | boolean | | 0..1 | | If "monitoringType" is "AREA\_OF\_INTEREST", this parameter shall be set to true if the specified UAV is in the monitoring area. Set to false or omitted otherwise. | | UAV | |
| groupMembListChanges | | GroupMembListChanges | | 0..1 | | Contains information on the change(s) to the group members list.  This attribute shall be present only if the "monitoringType" attribute is set to "GROUP\_MEMBER\_LIST\_CHANGE". | | GMEC | |
| sessInactiveTime | | DurationSec | | 0..1 | | The value of the session inactivity timer.  This attribute shall be present only if the "monitoringType" attribute is set to "SESSION\_INACTIVITY\_TIME". | | DataTransfer | |
| trafficInfo | | TrafficInformation | | 0..1 | | The value of the UL/DL data rate and/or Traffic volume.  This attribute shall be present only if the "monitoringType" attribute is set to "TRAFFIC\_VOLUME” and/or "UL\_DL\_DATA\_RATE". | | DataTransfer | |
| NOTE 1: Properties marked with a feature as defined in clause 5.3.4 are applicable as described in clause 5.2.7. If no features are indicated, the related property applies for all the features.  NOTE 2: Identifies the user for which the event occurred. At least one of the properties shall be included.  NOTE 3: If the "eNSAC" feature is supported, the "SACEventStatus" data type shall include an indication to report either the current number of registered UEs or the current number of UEs with at least one PDU session/PDN connection.  NOTE 4: When the "AppDetection\_5G" feature is supported and the "monitoringType" attribute is set to either "APPLICATION\_START" or "APPLICATION\_STOP", the "appId" attribute shall be present only if the "appIds" attribute within the corresponding subscription resource contains more than one array element (i.e., more than one application identifier). | | | | | | | | | |

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