**3GPP TSG-CT WG3 Meeting #125 *C3-225305***

**Toulouse, France, 14th - 18th, November, 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.512** | **CR** | **0979** | **rev** | **-** | **Current version:** | **17.8.0** |  |
|  | | | | | | | | |
| *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:*** | Correction to the attribute name of policy control request trigger | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | MPS2 | | | | |  | ***Date:*** | | | 2022-11-18 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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 attribute names of policy control request trigger in clause 5.6.3.6 are not correct. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Corrects the attribute names. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Wrong attribute name makes the MPS2 unworkable. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.6.3.6 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | The CR does not impact the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* Start of Changes \* \* \* \*

#### 5.6.3.6 Enumeration: PolicyControlRequestTrigger

Table 5.6.3.6-1: Enumeration PolicyControlRequestTrigger

|  |  |  |
| --- | --- | --- |
| Enumeration value | Description | Applicability |
| PLMN\_CH | PLMN Change. |  |
| RES\_MO\_RE | A request for resource modification has been received by the NF service consumer. (NOTE) |  |
| AC\_TY\_CH | Access Type Change. It also indicates the addition or removal of Access Type for MA PDU session. |  |
| UE\_IP\_CH | UE IP address change. (NOTE) |  |
| UE\_MAC\_CH | A new UE MAC address is detected or a used UE MAC address is inactive for a specific period. |  |
| AN\_CH\_COR | Access Network Charging Correlation Information. |  |
| US\_RE | The PDU Session or the Monitoring key specific resources consumed by a UE either reached the threshold or needs to be reported for other reasons. | UMC |
| APP\_STA | The start of application traffic has been detected. | ADC |
| APP\_STO | The stop of application traffic has been detected. | ADC |
| AN\_INFO | Access Network Information report. | NetLoc |
| CM\_SES\_FAIL | Credit management session failure. |  |
| PS\_DA\_OFF | The NF service consumer reports when the 3GPP PS Data Off status changes. (NOTE) | 3GPP-PS-Data-Off |
| DEF\_QOS\_CH | Default QoS Change. (NOTE) |  |
| SE\_AMBR\_CH | Session-AMBR Change. (NOTE) |  |
| QOS\_NOTIF | The NF service consumer notify the PCF when receiving notification from RAN that QoS targets of the QoS Flow cannot be guaranteed or can be guaranteed. |  |
| NO\_CREDIT | Out of credit. |  |
| REALLO\_OF\_CREDIT | Reallocation of credit | ReallocationOfCredit |
| PRA\_CH | Change of UE presence in Presence Reporting Area. | PRA |
| SAREA\_CH | Location Change with respect to the Serving Area. |  |
| SCNN\_CH | Location Change with respect to the Serving CN node. |  |
| RE\_TIMEOUT | Indicates the NF service consumer generated the request because there has been a PCC revalidation timeout (i.e. Enforced PCC rule request defined in table 6.1.3.5.-1 of 3GPP TS 23.503 [6]). |  |
| RES\_RELEASE | Indicates that the NF service consumer can inform the PCF of the outcome of the release of resources for those rules that require so. | RAN-NAS-Cause |
| SUCC\_RES\_ALLO | Indicates that the NF service consumer shall inform the PCF of the successful resource allocation for those rules that requires so. |  |
| RAT\_TY\_CH | RAT type change. |  |
| REF\_QOS\_IND\_CH | Reflective QoS indication Change. |  |
| NUM\_OF\_PACKET\_FILTER | Indicates that the NF service consumer shall report the number of supported packet filter for signalled QoS rules. (NOTE) Only applicable to the interworking scenario as defined in Annex B. |  |
| UE\_STATUS\_RESUME | Indicates that the UE's status is resumed. Only applicable to the interworking scenario as defined in Annex B. | PolicyUpdateWhenUESuspends |
| UE\_TZ\_CH | UE Time Zone Change. |  |
| AUTH\_PROF\_CH | Indicates that the DN-AAA authorization profile index has changed. (NOTE) | DN-Authorization |
| TSN\_BRIDGE\_INFO | Indicates the NF service consumer has detected information about new TSC user plane node port(s), and/or new/updated UMIC and/or PMIC(s). | TimeSensitiveNetworking |
| QOS\_MONITORING | Indicate that the NF service consumer notifies the PCF of the QoS Monitoring information. | QosMonitoring |
| SCELL\_CH | Location Change with respect to the Serving Cell. |  |
| USER\_LOCATION\_CH | Indicates that user location has changed, applicable to serving area change and serving cell change. | AggregatedUELocChanges |
| EPS\_FALLBACK | EPS Fallback report is enabled in the NF service consumer. Only applicable to the interworking scenario as defined is Annex B. | EPSFallbackReport |
| MA\_PDU | Indicates that the NF service consumer notifies the PCF of the MA PDU session request. Only applicable to the interworking scenario as defined in Annex B. (NOTE) | ATSSS |
| 5G\_RG\_JOIN | The 5G-RG has joined to an IP Multicast Group. | WWC |
| 5G\_RG\_LEAVE | The 5G-RG has left an IP Multicast Group. | WWC |
| DDN\_FAILURE | Indicates that the NF service consumer requests policies from PCF if it received an event subscription for DDN Failure event. | DDNEventPolicyControl |
| DDN\_DELIVERY\_STATUS | Indicates that the NF service consumer requests policies from PCF if it received an event subscription for DDN Delievery Status event. | DDNEventPolicyControl |
| GROUP\_ID\_LIST\_CHG | UE Internal Group Identifier(s) has changed: the NF service consumer reports that UDM provided list of group Ids has changed. (NOTE) | GroupIdListChange |
| DDN\_FAILURE\_CANCELLATION | Indicates that the event subscription for DDN Failure event is cancelled. | DDNEventPolicyControl2 |
| DDN\_DELIVERY\_STATUS\_CANCELLATION | Indicates that the event subscription for DDD STATUS is cancelled. | DDNEventPolicyControl2 |
| VPLMN\_QOS\_CH | Indicates that the NF service consumer has detected the change of the QoS supported in the VPLMN, the change from the case where the QoS constraints are applicable to the case where the QoS constraints are not applicable (e.g. the UE moves back from the home routed to the non-roaming scenario) or vice versa. (NOTE) | VPLMN-QoS-Control |
| SUCC\_QOS\_UPDATE | Indicates that the NF service consumer notifies the PCF of the successful update of the QoS for MPS. | MPSforDTS |
| SAT\_CATEGORY\_CHG | Indicates that the SMF has detected a change between different satellite category, or non-satellite backhaul. | SatBackhaulCategoryChg |
| PCF\_UE\_NOTIF\_IND | Indicates the SMF has detected the AMF forwarded the PCF for the UE indication to receive/stop receiving notifications of SM Policy association established/terminated events. | AMInfluence |
| NWDAF\_DATA\_CHG | Indicates that the NWDAF instance IDs used for the PDU session and/or associated Analytics IDs have changed. (NOTE) | EneNA |
| NOTE: The NF service consumer always reports to the PCF. | | |

The PCF may provision the values of policy control request trigger which are not always reported by the NF service consumer as defined in clause 4.2.6.4.

When the NF service consumer detects the corresponding policy control request trigger(s), the NF service consumer shall report the detected trigger(s) to the PCF as defined in clause 4.2.4.1 with the additional information for different independent policy control request triggers as follows:

If the "PLMN\_CH" is provisioned, when the NF service consumer detects a change of the serving network (a PLMN or an SNPN), the NF service consumer shall include the "PLMN\_CH" within the "repPolicyCtrlReqTriggers" attribute and the current identifier of the serving network within the "servingNetwork" attribute.

When the NF service consumer receives the resource modification request from the UE, the NF service consumer shall include the "RES\_MO\_RE" within the "repPolicyCtrlReqTriggers" attribute and the information for requesting the PCC rule as defined in clause 4.2.4.17.

If the "AC\_TY\_CH" is provisioned, when the NF service consumer detects a change of access type, the NF service consumer shall include the "AC\_TY\_CH" within the "repPolicyCtrlReqTriggers" attribute and the current access type within the "accessType" attribute. The RAT type encoded in the "ratType" attribute shall also be provided when applicable to the specific access type. Specific attributes for the EPC interworking case are described in Annex B. If the ATSSS feature is supported, when the NF service consumer detects an access is added or released for MA PDU session, the NF service consumer shall include the added Access Type or released Access type encoded as "accessType" attribute within the AdditionalAccessInfo data structure. The RAT type encoded in the "ratType" attribute shall also be provided within the AdditionalAccessInfo data structure when applicable to the added access type or released access type.

When the NF service consumer detects an IPv4 address and/or an IPv6 prefix is allocated or released, the NF service consumer shall include the "UE\_IP\_CH" within the "repPolicyCtrlReqTriggers" attribute and new allocated UE Ipv4 address within the "ipv4Address" attribute and/or the UE Ipv6 prefix within the "ipv6AddressPrefix" attribute or the released UE Ipv4 address within the "relIpv4Address" attribute and/or the UE Ipv6 prefix within the "relIpv6AddressPrefix" attribute. If the "MultiIpv6AddrPrefix" feature is supported ,and if multiple allocated or released IPv6 prefixes are detected, the NF service consumer shall include the new allocated UE Ipv6 prefixes within the "addIpv6AddrPrefixes" attribute and the released UE Ipv6 prefixes within the "addRelIpv6AddrPrefixes" attribute.

When the NF service consumer detects a new UE MAC address or a used UE MAC address is not used any more, the NF service consumer shall include the "UE\_MAC\_CH" within the "repPolicyCtrlReqTriggers" attribute and new detected UE MAC address within the "ueMac" attribute or the not used UE MAC address within the "relUeMac" attribute.

If the "AN\_CH\_COR" is provisioned, when the NF service consumer is provisioned with the PCC rule as defined in clause 4.2.6.5.1, the NF service consumer shall notify the PCF of access network charging identifier associated with the PCC rules as defined in clause 4.2.4.13.

If the "US\_RE" is provisioned, when the NF service consumer receives the usage report from the UPF, the NF service consumer shall notify the PCF of the accumulated usage as defined in clause 4.2.4.10. Applicable to functionality introduced with the UMC feature as described in clause 5.8.

If the "APP\_STA" is provisioned, when the NF service consumer receives the application start report from the UPF, the NF service consumer shall notify the PCF of the application start report as defined in clause 4.2.4.6. Applicable to functionality introduced with the ADC feature as described in clause 5.8.

If the "APP\_STO" is provisioned, when the NF service consumer receives the application stop report from the UPF, the NF service consumer shall notify the PCF of the application stop report as defined in clause 4.2.4.6. Applicable to functionality introduced with the ADC feature as described in clause 5.8.

If the "AN\_INFO" is provisioned, when the NF service consumer receives the reported access network information from the access network, the NF service consumer shall notify the PCF of the access network information as defined in clause 4.2.4.9. Applicable to functionality introduced with the NetLoc feature as described in clause 5.8.

If the "CM\_SES\_FAIL" is provisioned, when the NF service consumer receives a detected transient/permanent failure from the CHF, the NF service consumer shall include the "CM\_SES\_FAIL" within the "repPolicyCtrlReqTriggers" attribute. If the failure does not apply to all PCC Rules, the affected PCC Rules are indicated within the "ruleReports" attribute, with the "ruleStatus" attribute set to value ACTIVE and the "failureCode" attribute set to the corresponding value as reported by the CHF; otherwise if the failure applies to the session, the "creditManageStatus" shall be set to the corresponding value as reported by the CHF.

If the "PS\_DA\_OFF" is provisioned, when the NF service consumer receives a change of 3GPP PS Data Off status from the UE, the NF service consumer shall notify the PCF as defined in clause 4.2.4.8. Applicable to functionality introduced with the 3GPP-PS-Data-Off feature as described in clause 5.8.

When the NF service consumer detects a change of subscribed default QoS, the NF service consumer shall include the "DEF\_QOS\_CH" within the "repPolicyCtrlReqTriggers" attribute and the new subscribed default QoS within the "subsDefQos" attribute.

When the NF service consumer detects a change of Session-AMBR, the NF service consumer shall include the "SE\_AMBR\_CH" within the "repPolicyCtrlReqTriggers" attribute and the new Session-AMBR within the "subsSessAmbr" attribute.

If the "QOS\_NOTIF" is provisioned, when the NF service consumer receives a notification from access network that QoS targets of the QoS Flow cannot be guaranteed or can be guaranteed again, the NF service consumer shall send the notification as defined in clause 4.2.4.20.

If the "NO\_CREDIT" is provisioned, when the NF service consumer detects the credit for the PCC rule(s) is no longer available, the NF service consumer shall include the "NO\_CREDIT" within the "repPolicyCtrlReqTriggers" attribute, the termination action the NF service consumer applies to the PCC rules as instructed by the CHF within the "finUnitAct" attribute and the affected PCC rules within the "ruleReports" attribute.

When the "ReallocationOfCredit" feature is supported, if the "REALLO\_OF\_CREDIT" is provisioned, when the NF service consumer detects the credit for the PCC rule(s) is reallocated, the NF service consumer shall include the "REALLO\_OF\_CREDIT" within the "repPolicyCtrlReqTriggers" attribute and include the affected PCC rules for which credit has been reallocated after credit was no longer available and the "ruleStatus" attribute set to value ACTIVE within the "ruleReports" attribute.

If the "PRA\_CH" is provisioned, to detect when the UE enters/leaves certain presence reporting areas, the NF service consumer is provisioned the presence reporting area information as defined in clause 4.2.6.5.6. When the NF service consumer receives the presence reporting area information from the serving node, the NF service consumer shall notify the PCF of the reported presence area information as defined in clause 4.2.4.16. This report includes reporting the initial status at the time the request for reports is initiated. Applicable to the functionality introduced by the PRA or ePRA feature as described in clause 5.8.

If the "SAREA\_CH" is provisioned, when the NF service consumer detects a change of serving area (i.e. tracking area, or if the feature "2G3GIWK" is supported routing area), the NF service consumer shall include the "SAREA\_CH" within the "repPolicyCtrlReqTriggers" attribute and the current TAI within the "userLocationInfo" attribute in either the "eutraLocation" or "nrLocation", or the current Routing Area within the "userLocationInfo" attribute in the "utraLocation" attribute when UTRAN access, or in the "geraLocation" attribute when GERAN access, as applicable. Non-3GPP access user location is reported in the "n3gaLocation" attribute when applicable. The attributes used in case of EPC interworking are described in Annex B.

If the "SCNN\_CH" is provisioned, when the NF service consumer detects a change of serving Network Function (i.e. the AMF, ePDG, S-GW or if the feature "2G3GIWK" is supported SGSN), the NF service consumer shall include the "SCNN\_CH" within the "repPolicyCtrlReqTriggers" attribute and the current serving Network Function in the "servNfId" attribute if available. When the serving Network Function is an AMF, the NF service consumer shall include the AMF Network Function Instance Identifier within the "servNfInstId" attribute and the Globally Unique AMF Identifier within the "guami" attribute. The attributes included in case of EPC interworking are described in Annex B.

NOTE 1: In the home-routed roaming case, if the AMF change is unknown to the H-SMF, then the AMF change is not reported.

If the "RE\_TIMEOUT" is provisioned, when the NF service consumer is provisioned with the revalidation time by the PCF, the NF service consumer shall request the policy before the indicated revalidation time is reached as defined in clause 4.2.4.3.

If the "RES\_RELEASE" is provisioned, when the NF service consumer receives the request of PCC rule removal as defined in clause 4.2.6.5.2, the NF service consumer shall report the outcome of resource release as defined in clause 4.2.4.12. Applicable to functionality introduced with the RAN-NAS-Cause feature as described in clause 5.8.

When "SUCC\_RES\_ALLO" is provisioned and PCC rules are provisioned according to clause 4.2.6.5.5, the NF service consumer shall inform the PCF of the successful resource allocation as defined in clause 4.2.4.14.

If the feature "2G3GIWK" is supported, and if the "RAI\_CH" is provisioned, when the NF service consumer detects a change of routing area, the NF service consumer shall include the "RAI\_CH" within the "repPolicyCtrlReqTriggers" attribute and the current RAI within the "userLocationInfo" attribute as described in Annex B.

If the "RAT\_TY\_CH" is provisioned, when the NF service consumer detects a change of the RAT type, the NF service consumer shall include the "RAT\_TY\_CH" within the "repPolicyCtrlReqTriggers" attribute and the current RAT type within the "ratType" attribute. For MA PDU session, the NF service consumer shall include the current RAT type at the SmPolicyUpdateContextData data type level or AdditionalAccessInfo data type level. If the RAT type is provided at the SmPolicyUpdateContextData data type level, the NF service consumer shall also provide the associated access type within the SmPolicyUpdateContextData data structure.

If the "REF\_QOS\_IND\_CH" is provisioned, when the NF service consumer receives a change of reflective QoS indication from the UE, the NF service consumer shall include the "REF\_QOS\_IND\_CH" within the "repPolicyCtrlReqTriggers" attribute and the indication within the "refQosIndication" attribute.

When the NF service consumer receives the number of supported packet filter for signalled QoS rules for the PDU session from the UE during the PDU Session Modification procedure after the first inter-system change from EPS to 5GS for a PDU Session established in EPS and transferred from EPS with N26 interface, the NF service consumer shall include the "NUM\_OF\_PACKET\_FILTER" within the "repPolicyCtrlReqTriggers" attribute and the number of supported packet filter for signalled QoS rules within the "numOfPackFilter" attribute. Only applicable to the interworking scenario as defined in Annex B.

If the "UE\_STATUS\_RESUME" is provisioned, when the NF service consumer detected the UE's status is resumed from suspend state, the NF service consumer shall inform the PCF of the UE status including the "UE\_STATUS\_RESUME" within "repPolicyCtrlReqTriggers" attribute. The PCF shall after this update the NF service consumer with PCC Rules or session rules if necessary. Applicable to functionality introduced with the PolicyUpdateWhenUESuspends feature as described in clause 5.8.

If the "UE\_TZ\_CH" is provisioned, when the NF service consumer detects a change of the UE Time Zone, the NF service consumer shall include the "UE\_TZ\_CH" within the "repPolicyCtrlReqTriggers" attribute and the current UE Time Zone within the "ueTimeZone" attribute.

If the "DN-Authorization" feature is supported, when the NF service consumer detects a change of DN-AAA authorization profile index, the NF service consumer shall include the "AUTH\_PROF\_CH" within the "repPolicyCtrlReqTriggers" attribute and the new DN-AAA authorization profile index within the "authProfIndex" attribute.

If the "TimeSensitiveNetworking" or "TimeSensitiveCommunication" feature is supported and "TSN\_BRIDGE\_INFO" is provisioned, when the NF service consumer detects:

- there is information about new TSC user plane node port(s), e.g. a new manageable Ethernet port, the NF service consumer shall include the "TSN\_BRIDGE\_INFO" within the "repPolicyCtrlReqTriggers" attribute and the updated TSC user plane node information within the "tsnBridgeInfo" attribute; and/or

- the NF service consumer detects a UMIC or PMIC, the NF service consumer shall include the "TSN\_BRIDGE\_INFO" within the "repPolicyCtrlReqTriggers" attribute and the UMIC, if available, within the "tsnBridgeManCont" attribute, and/or the PMIC(s), if available, within the "tsnPortManContDstt" and the "tsnPortManContNwtts" attributes.

NOTE 2: When the NF service consumer detects updated Port Management Information of the NW-TT ports, the NF service consumer includes the PMIC within the "tsnPortManContNwtts" attribute of SmPolicyUpdateContextData data type.

If the "QOS\_MONITORING" is provisioned, upon receiving the QoS Monitoring report from the UPF, the NF service consumer shall send the QoS monitoring report to the PCF as defined in clause 4.2.4.24.

If the "SCELL\_CH" is provisioned, when the NF service consumer detects a change of serving cell, the NF service consumer shall include the "SCELL\_CH" within the "repPolicyCtrlReqTriggers" attribute and the current cell Id within the "userLocationInfo" attribute either in the "eutraLocation" attribute when EPC/E-UTRAN access or "nrLocation" attribute when NR access or "geraLocation" attribute when GERAN access or "utraLocation" attribute when UTRAN access, as applicable.

NOTE 3: Location change of serving cell can increase signalling load on multiple interfaces. Hence, it is recommended that any such serving cell changes event trigger subscription is only applied for a limited number of subscribers.

If the "AggregatedUELocChanges" feature is supported and the "USER\_LOCATION\_CH" is provisioned, when the NF service consumer detects a change of serving cell and/or a change of serving area (i.e. tracking area), the NF service consumer shall include the "USER\_LOCATION\_CH" within the "repPolicyCtrlReqTriggers" attribute and the current serving area and/or cell Id within the "userLocationInfo" attribute in the "eutraLocation" attribute or "nrLocation" attribute or "geraLocation" attribute or "utraLocation" attribute, as applicable.

NOTE 4: The access network can be configured to report location changes only when transmission resources are established in the radio access network.

If the "EPSFallbackReport" feature is supported and the "EPS\_FALLBACK" is provisioned and there is a PCC rule installed that required the reporting, when the NF service consumer receives a PDU session modification response indicating the rejection of the establishment of the QoS flow with 5QI=1, the NF service consumer shall notify the PCF of EPS fallback as defined in clause B.3.4.6.

When the NF service consumer receives the MA PDU Request Indication or MA PDU Network-Upgrade Allowed Indication and ATSSS Capability from the UE during the PDU Session Modification procedure after the first inter-system change from EPS to 5GS for a PDU Session established in EPS and transferred from EPS with N26 interface, the NF service consumer shall include the "MA\_PDU" within the "repPolicyCtrlReqTriggers" attribute, the MA PDU session Indication in the "maPduInd" attribute, the ATSSS capability of the MA PDU session within the "atsssCapab" attribute. Only applicable to the interworking scenario as defined in Annex B.

If the "WWC" feature is supported and "5G\_RG\_JOIN" is provisioned and when the NF service consumer detects a 5G-RG has joined to an IP Multicast Group, the NF service consumer shall include the "5G\_RG\_JOIN" within the "repPolicyCtrlReqTriggers" attribute and the IP multicast addressing information within the "mulAddrInfos" attribute.

If the "WWC" feature is supported and "5G\_RG\_LEAVE" is provisioned and when the NF service consumer detects a 5G-RG has left an IP Multicast Group, the NF service consumer shall include the "5G\_RG\_LEAVE" within the "repPolicyCtrlReqTriggers" attribute and the IP multicast addressing information within the "mulAddrInfos" attribute.

If "DDNEventPolicyControl" feature is supported, and if "DDN\_FAILURE" is provisioned, when the NF service consumer receives an event subscription for DDN Failure event including the traffic descriptors, the NF service consumer shall include the "DDN\_FAILURE" within the "repPolicyCtrlReqTriggers" attribute and traffic descriptor(s) within the "trafficDescriptors" attribute.

If "DDNEventPolicyControl" feature is supported, and if "DDN\_DELIVERY\_STATUS" is provisioned, when the NF service consumer receives an event subscription for DDD Status event including the traffic descriptors, the NF service consumer shall include the "DDN\_DELIVERY\_STATUS" within the "repPolicyCtrlReqTriggers" attribute and traffic descriptor(s) within the "trafficDescriptors" attribute and the requested type(s) of notifications (notifications about downlink packets being buffered, and/or discarded).

If "GroupIdListChange" feature is supported, when the SMF receives the updated Internal Group Identifier(s) from the UDM, the SMF shall include the "GROUP\_ID\_LIST\_CHG" within the "repPolicyCtrlReqTriggers" attribute and the Internal Group Identifier(s) of the served UE within the "interGrpIds" attribute.

If "DDNEventPolicyControl2" feature is supported, and if "DDN\_FAILURE\_CANCELLATION" is provisioned, when the SMF receives a cancellation of event subscription for DDN Failure event, the SMF shall include the "DDN\_FAILURE\_CANCELLATION" within the "repPolicyCtrlReqTriggers" attribute and the PCC rule identifier of the PCC rule which is used for traffic detection of DDN failure event within the "pccRuleId" attribute.

If "DDNEventPolicyControl2" feature is supported, and if "DDN\_DELIVERY\_STATUS\_CANCELLATION" is provisioned, when the SMF receives a cancellation of event subscription for DDD Status event, the SMF shall include the "DDN\_DELIVERY\_STATUS\_CANCELLATION" within the "repPolicyCtrlReqTriggers" attribute and the PCC rule identifier of the PCC rule which is used for traffic detection of DDD status event within the "pccRuleId" attribute.

When the "VPLMN-QoS-Control" feature is supported and if the NF service consumer receives a new QoS value supported in the VPLMN, the NF service consumer shall include the "VPLMN\_QOS\_CH" within the "repPolicyCtrlReqTriggers" attribute and the received QoS constraints within the "vplmnQos" attribute; if the NF service consumer detects that the UE moves from a VPLMN with QoS constraints to the HPLMN or to a VPLMN without QoS constraints, the NF service consumer shall include the "VPLMN\_QOS\_CH" within the "repPolicyCtrlReqTriggers" attribute and the "vplmnQosNotApp" attribute set to true.

If the "MPSforDTS" feature is supported, and if "SUCC\_QOS\_UPDATE" is provisioned, when the resources for the MPS for DTS invocation/revocation are successfully allocated for MPS for DTS, the NF service consumer shall include the "SUCC\_QOS\_UPDATE" within the "repPolicyCtrlReqTriggers" attribute.

If "SatBackhaulCategoryChg" feature is supported, and if "SAT\_CATEGORY\_CHG" is provisioned, the NF service consumer notifies the PCF when there is a change of the backhaul which is used for the PDU session between different satellite backhaul categories (i.e., GEO, MEO, LEO, or other satellite) or between a satellite backhaul and a non-satellite backhaul. The NF service consumer shall include the satellite backhaul category or non-satellite backhaul within the "satBackhaulCategory" attribute together with the "SAT\_CATEGORY\_CHG" policy control request trigger within the "repPolicyCtrlReqTriggers" attribute.

NOTE 5: The type (i.e. GEO, MEO, LEO or other satellite) of the satellite involved in the backhaul is referred as the satellite backhaul category. Only a single backhaul category can be indicated.

If the "AMInfluence" feature is supported, and if "PCF\_UE\_NOTIF\_IND" is provisioned, the NF service consumer notifies the PCF about the PCF for the UE request to be notified of PDU session established/terminated events by forwarding within the "pcfUeInfo" attribute, the received PCF for the UE callback URI within the "callbackUri" attribute and, if received, SBA binding information within the "bindingInfo" attribute, together with the "PCF\_UE\_NOTIF\_IND" policy control request trigger within the "repPolicyCtrlReqTriggers" attribute. The NF service consumer notifies the PCF about the PCF for the UE request to stop being notified about the PDU session established/terminated events by sending the "pcfUeInfo" attribute set to NULL together with the "PCF\_UE\_NOTIF\_IND" policy control request trigger within the "repPolicyCtrlReqTriggers" attribute.

If "EneNA" feature is supported, and if "NWDAF\_DATA\_CHG" is provisioned, the NF service consumer notifies the PCF when there is a change in the list of NWDAF Instance IDs used for the PDU Session and/or associated Analytics IDs. The NF service consumer shall include within the "nwdafDatas" attribute the list of NWDAF instance IDs used for the PDU Session within the "nwdafInstanceId" attribute and their associated Analytic ID(s) within the "nwdafEvents" attribute, and the "NWDAF\_DATA\_CHG" within the "repPolicyCtrlReqTriggers" attribute.

\* \* \* \* End of change \* \* \* \*