**3GPP TSG CT WG3 Meeting #135 *C3-243228***

**Hyderabad, IN, 27 - 31 May, 2024 *(Revision of C3-243xxx)***

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.514** | **CR** | **0636** | **rev** | **-** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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:*** | Various corrections to the definition of SFC functionality | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SFC | | | | |  | ***Date:*** | | | 2024-05-20 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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:*** | | The following issues have been identified to support the SFC feature in the current specification:   1. In clauses 4.2.2.8 and 4.2.3.8, the description of SFC related attributes are unclear and redundant, or missing the support of SFC feature. 2. The presence condition of sfcIdDl and sfcIdUl attributes should be condition based on the NOTE. 3. Additional editorial and format issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Correct the above-detailed issues. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Unclear and incomplete specfication. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.2.2.8, 4.2.3.8, 5.6.2.49, 5.8 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 on the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

#### 4.2.2.8 Initial provisioning of traffic routing and service function chaining information

This procedure is used by a NF service consumer to:

when "InfluenceOnTrafficRouting" feature is supported:

- influence SMF traffic routing decisions to a local access to a Data Network identified by a DNAI; and/or

- request subscriptions to notifications about UP path management events related to the PDU session.

when "SFC" feature is supported:

- influence the steering of user traffic to service function chain(s) on N6-LAN.

NOTE 1: The NF service consumer uses the Npcf\_PolicyAuthorization service for requests targeting specific on-going PDU sessions of individual UE(s). The NF service consumer requests that target existing or future PDU Sessions of multiple UE(s) or any UE are sent via the NEF and may target multiple PCF(s), as described in 3GPP TS 29.513 [7].

When the "CommonEASDNAI" feature is supported, the procedure is also used by a NF service consumer to request to select a common EAS or EAS(es) corresponding to a common DNAI for a set of UE associated with the same traffic correlation Id accessing the application identified by the provided service information.

NOTE 2: Common EAS selection means the common DNAI is selected.

In order to influence on traffic routing, the NF service consumer shall include in the HTTP POST request message described in clause 4.2.2.2 the "afRoutReq" attribute of "AfRoutingRequirement" data type with specific routing requirements for the application traffic flows either within "AppSessionContextReqData" data type for the service indicated in the "afAppId" attribute, or within the "medComponents" attribute. When provided at both levels, the "afRoutReq" attribute value in the "medComponents" attribute shall have precedence over the "afRoutReq" attribute included in the "AppSessionContextReqData" data type.

In order to influence on N6-LAN traffic steering, the NF service consumer shall include in the HTTP POST request message described in clause 4.2.2.2 the "afSfcReq" attribute of "AfSfcRequirement" data type with specific N6-LAN traffic steering requirements for the application traffic flows either within "AppSessionContextReqData" data type for the service indicated in the "afAppId" attribute, or within the "medComponents" attribute. When provided at both levels, the "afSfcReq" attribute value in the "medComponents" attribute shall have precedence over the "afSfcReq" attribute included in the "AppSessionContextReqData" data type.

The NF service consumer may include traffic routing and N6-LAN traffic steering requirements together with service information.

The NF service consumer may request to influence on N6-LAN traffic steering and/or to influence SMF traffic routing decisions to a DNAI.

If the "SFC" feature is supported, when the NF service consumer requests to influence N6-LAN traffic steering, it shall include in the "afSfcReq" attribute:

a) the pre-defined Service Function Chain identifier for downlink in "sfcIdDl" and/or for uplink in "sfcIdUl".

and may also include:

b) spatial validity which the NF service consumer request is valid shall be indicated in terms of validity areas encoded in the "spVal" attribute of "SpatialValidity" data type. The "SpatialValidity" data type consists of a list of presence areas included in the "presenceInfoList" attribute, where each element shall include the presence reporting area identifier in the "praId" attribute and may include the elements composing a presence area encoded in the attributes: "trackingAreaList", "ecgList", "ncgList", "globalRanNodeIdList".

c) The metadata information wich should be sent to the UPF via SMF transparently as defined in 3GPP TS 29.512[8].

If the "InfluenceOnTrafficRouting" feature is supported, when the NF service consumer request to influence on traffic routing, the NF service consumer shall include in the "afRoutReq" attribute:

a) A list of routes to locations of applications in the "routeToLocs" attribute. Each element of the list shall contain:

- a DNAI in the "dnai" attribute to indicate the location of the application towards which the traffic routing is applied; and

- a routing profile identifier in the "routeProfId" attribute, and/or the explicit routing information in the "routeInfo" attribute.

and may also include:

a) Indication of application relocation possibility in the "appReloc" attribute.

b) Temporal validity during which the NF service consumer request is valid shall be indicated with the "startTime" and "stopTime" attributes.

c) Spatial validity during which the NF service consumer request is valid shall be indicated in terms of validity areas encoded in the "spVal" attribute of "SpatialValidity" data type. The "SpatialValidity" data type consists of a list of presence areas included in the "presenceInfoList" attribute, where each element shall include the presence reporting area identifier in the "praId" attribute and may include the elements composing a presence area encoded in the attributes: "trackingAreaList", "ecgList", "ncgList", "globalRanNodeIdList".

d) Indication of UE IP address preservation in the "addrPreserInd" attribute if the URLLC feature is supported.

e) If the SimultConnectivity feature is supported:

- indication of simultaneous connectivity temporarily maintained in the source and target PSA during the edge re-location procedure in the "simConnInd" attribute; and

- if the "simConnInd" attribute is set to true, the minimum time interval to be considered for inactivity of the traffic routed via the source PSA in the "simConnTerm" attribute.

f) EAS IP replacement information in the "easIpReplaceInfos" attribute if the EASIPreplacement feature is supported.

g) Indication of EAS rediscovery in the "easRedisInd" attribute if the EASDiscovery feature is supported.

h) Maximum allowed user plane latency in the "maxAllowedUpLat" attribute if the AF\_latency feature is supported.

NOTE 3: The EAS IP Replacement information and the information indicating the EAS rediscovery are not provided simultaneously.

i) If the CommonEASDNAI feature is supported, traffic correlation information in the "tfcCorreInfo" attribute.

When "InfluenceOnTrafficRouting" feature is supported, the NF service consumer may also subscribe to notifications about UP path management events. The NF service consumer shall include in the "upPathChgSub" attribute:

- notifications of early and/or late DNAI change, using the attribute "dnaiChgType" indicating whether the subscription is for "EARLY", "LATE" or "EARLY\_LATE";

- the notification URI where the NF service consumer is receiving the Nsmf\_EventExposure\_Notify service operation in the "notificationUri" attribute; and

- the notification correlation identifier assigned by the NF service consumer in the "notifCorreId" attribute.

When the NF service consumer subscribes to notifications about UP path management events, it may include the "3gpp-Sbi-Consumer-Info" custom HTTP header as described in clause 6.6.2 of 3GPP TS 29.500 [5] to indicate the features supported by the NF service consumer over the Nsmf\_EventExposure service related to UP path management event handling as described in 3GPP TS 29.508[13].

If the URLLC feature is supported, the NF service consumer may include an indication of NF service consumer acknowledgement to be expected as an "afAckInd" attribute within the "upPathChgSub" attribute.

When the feature "RoutingReqOutcome" is supported:

- the PCF may set the "servAuthInfo" attribute in the HTTP response message to "ROUT\_REQ\_NOT\_AUTHORIZED" when the PCF determines, e.g. based on subscription, the AF influence on traffic routing is not allowed for the PDU session;

- when the NF service consumer requests the steering of traffic to a DNAI and/or the subscription to notifications about UP path management events, the NF service consumer may subscribe to notifications of failures in the enforcement of UP path changes including within the "evSubsc" attribute the "event" attribute value "UP\_PATH\_CHG\_FAILURE" in an entry of the "events" array.

NOTE 4: In the case that the PCF determines that the requested AF routing requirements cannot be applied and returns the "servAuthInfo" attribute in the HTTP response, the PCF makes the decision without considering the requested AF routing requirements.

The PCF shall reply to the NF service consumer as described in clause 4.2.2.2.

The PCF shall store the routing requirements included in the "afRoutReq" attribute and/or if the SFC feature is supported, the N6-LAN traffic steering requirements within the "afSfcReq" attribute.

The PCF shall check whether the received routing requirements and/or N6-LAN traffic steering requirements require PCC rules to be created or provisioned to include or modify traffic steering policies (for both routing requirements and/or N6-LAN traffic steering requirements) and the application relocation possibility (only for routing requirements) as specified in 3GPP TS 29.513 [7]. Provisioning of PCC rules to the SMF shall be carried out as specified in 3GPP TS 29.512 [8].

NOTE 5: The NF service consumer receives the notification about UP path management events by the Nsmf\_EventExposure\_Notify service operation as defined in clause 4.2.2.2 of 3GPP TS 29.508 [13].

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

#### 4.2.3.8 Update of traffic routing and service function chaining information

When the "InfluenceOnTrafficRouting" feature is supported , this procedure is used by the NF service consumer to modify the traffic routing information to a local access to a DNN, and/or to modify the subscription to notifications about UP path management events. Additionally:

- when the "SimultConnectivity" feature is supported, this procedure may be used to modify (create, delete, update) the indication of simultaneous connectivity temporarily maintained for the source and target PSA and/or the indication of the minimum time interval to be considered for inactivity for the traffic routed via the source PSA;

- when the "URLLC" feature is supported, this procedure may be used to modify (create, delete, update) the indication of UE IP address preservation; and

- when the "EASIPreplacement" feature is supported, this procedure may be used to modify (initially provide, delete, update) the EAS IP replacement information to the PCF.

When the "SFC" feature is supported, this procedure is used by the NF service consumer to modify service chaining information.

The NF service consumer shall use the HTTP PATCH method.

To modify traffic routing information, the NF service consumer shall include in the HTTP PATCH request message described in clause 4.2.3.2, in the "ascReqData" attribute, an updated "afRoutReq" attribute(s) with the modified traffic routing information. To modify the indication of simultaneous connectivity and/or the termination of the simultaneous connectivity, the NF service consumer shall include an updated "simConnInd" attribute and/or an updated "simConnTem" attribute, if applicable. To modify the indication of UE IP address preservation, the NF service consumer shall include the updated indication of UE IP address preservation in the "addrPreserInd" attribute, if applicable. To modify the EAS IP replacement information, the NF service consumer shall include the updated/new "easIpReplaceInfos" attribute, if applicable. To modify the maximum allowed user plane latency, the NF service consumer shall include the updated/new "maxAllowedUpLat" attribute, if applicable. To modify the traffic correlation information, the NF service consumer shall include an updated/new "tfcCorreInfo" attribute. To send a new indication of EAS rediscovery, the NF service consumer shall include the indication in the "easRedisInd" attribute, if applicable.

To modify (create, delete or modify) the service function chaining information, the NF service consumer shall include the"afSfcReq" attribute including the modified service function chaining information within the AppSessionContextReqData.

To modify the subscription to notifications about UP path management events (create, delete or modify), the NF service consumer shall include in the HTTP PATCH request message described in clause 4.2.3.2, in the "ascReqData" attribute, the updated values of the "upPathChgSub" attribute with the modified subscription to UP path management events.

When the feature "RoutingReqOutcome" is supported:

- and the NF service consumer is creating or modifying AF routing information, the PCF may set the "servAuthInfo" attribute in the HTTP response message to "ROUT\_REQ\_NOT\_AUTHORIZED" when the PCF determines, e.g. based on subscription, the AF influence on traffic routing is not allowed for the PDU session;

- when the NF service consumer requests the update of the steering of traffic to a DNAI and/or the subscription to notifications about UP path management events, the NF service consumer may subscribe to notifications of failures in the enforcement of UP path changes including within the "evSubsc" attribute the "event" attribute value "UP\_PATH\_CHG\_FAILURE" in an entry of the "events" array, or may remove the subscription to notification of failures in the enforcement of UP path changes by not including the the "event" attribute value "UP\_PATH\_CHG\_FAILURE" in an entry of the "events" array of the "evSubsc" attribute.

NOTE: In the case that the PCF determines that the requested AF routing requirements cannot be applied and returns the "servAuthInfo" attribute in the HTTP response, the PCF makes the decision without considering the requested AF routing requirements.

The PCF shall reply to the NF service consumer as described in clause 4.2.3.2.

The PCF shall store the application routing requirements included in the "afRoutReq" attribute and/or when the "SFC" feature is supported, the N6-LAN traffic steering requirements within the "afSfcReq" attribute.

The PCF shall check whether the updated application routing requirements and/or N6-LAN traffic steering requirements require PCC rules to be created or modified to include updated traffic steering policies (for both routing requirements and/or N6-LAN traffic steering requirements), or to update the application relocation possibility (only for routing requirements) as specified in 3GPP TS 29.513 [7]. Provisioning of PCC rules to the SMF shall be carried out as specified at 3GPP TS 29.512 [8].

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

#### 5.6.2.49 Type AfSfcRequirement

Table 5.6.2.49-1: Definition of type AfSfcRequirement

| Attribute name | Data type | P | Cardinality | Description | Applicability |
| --- | --- | --- | --- | --- | --- |
| sfcIdDl | string | C | 0..1 | Indicatesthe identifier of the pre-configured service function chain for downlink traffic.  (NOTE) |  |
| sfcIdUl | string | C | 0..1 | Indicates the identifier of the pre-configured service function chain for uplink traffic.  (NOTE) |  |
| spVal | SpatialValidityRm | O | 0..1 | Indicates the spatial validity where the traffic routing requirements apply.  The absence of this attribute indicates no spatial restrictions. |  |
| metadata | Metadata | O | 0..1 | Contains the opaque information for the service functions in the N6-LAN that is provided by AF and transparently sent to UPF. |  |
| NOTE: Either one of "sfcIdDl“, "sfcIdUl” attribute or both shall be present when initially provided. | | | | | |

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

## 5.8 Feature negotiation

The optional features in table 5.8-1 are defined for the Npcf\_PolicyAuthorization API. They shall be negotiated using the extensibility mechanism defined in clause 6.6 of 3GPP TS 29.500 [5].

When requesting the PCF to create an Individual Application Session Context resource the NF service consumer shall indicate the optional features the NF service consumer supports for the Npcf\_PolicyAuthorization service by including the "suppFeat" attribute in the "AppSessionContextReqData" data type of the HTTP POST request.

The PCF shall determine the supported features for the created Individual Application Session Context resource as specified in clause 6.6.2 of 3GPP TS 29.500 [5]. The PCF shall indicate the supported features in the HTTP response confirming the creation of the Individual Application Session Context resource by including the "suppFeat" attribute in the "AppSessionContextRespData" data type.

Table 5.8-1: Supported Features

| Feature number | Feature Name | Description |
| --- | --- | --- |
| 1 | InfluenceOnTrafficRouting | Indicates support of Application Function influence on traffic routing. If the PCF supports this feature, the NF service consumer may influence SMF routing to applications or subscribe to notifications of UP path management for the traffic flows of an active PDU session. |
| 2 | SponsoredConnectivity | Indicates support of sponsored data connectivity. If the PCF supports this feature, the NF service consumer may provide sponsored data connectivity to the SUPI. |
| 3 | MediaComponentVersioning | Indicates the support of the media component versioning. |
| 4 | URLLC | Indicates support of Ultra-Reliable Low-Latency Communication (URLLC) requirements, i.e. AF application relocation acknowledgement and UE address(es) preservation. The InfluenceOnTrafficRouting feature shall be supported in order to support this feature. |
| 5 | IMS\_SBI | Indicates support of the communication with the 5GC IMS NF service consumer via Service Based Interfaces. |
| 6 | NetLoc | Indicates the support of access network information reporting. |
| 7 | ProvAFsignalFlow | This indicates support for the feature of provisioning of AF signalling flow information as described in clauses 4.2.2.16 and 4.2.3.17. If the PCF supports this feature the NF service consumer may provision AF signalling flow information.  NOTE: This feature is used by the IMS Restoration Procedures to provide to the SMF the address of the P-CSCF selected by the UE, refer to 3GPP TS 23.380 [39].  The IMS\_SBI feature shall be supported in order to support this feature. |
| 8 | ResourceSharing | This feature indicates the support of resource sharing across several "Individual Application Session Context" resources. The IMS\_SBI feature shall be supported in order to support this feature. |
| 9 | MCPTT | This feature indicates the support of Mission Critical Push To Talk services as described in 3GPP TS 24.379 [41]. |
| 10 | MCVideo | This feature indicates the support of Mission Critical Video services as described in 3GPP TS 24.281 [43]. |
| 11 | PrioritySharing | This feature indicates that Priority Sharing is supported as described in 3GPP TS 23.503 [4], clause 6.1.3.15. |
| 12 | MCPTT-Preemption | This feature indicates the support of service pre-emption based on the information provided by the NF service consumer. It requires that both PrioritySharing and MCPTT features are also supported. |
| 13 | MacAddressRange | Indicates the support of a set of MAC addresses with a specific range in the traffic filter. |
| 14 | RAN-NAS-Cause | This feature indicates the support for the release cause code information from the access network. |
| 15 | EnhancedSubscriptionToNotification | Indicates the support of:  - Subscription to periodic notifications.  - Definition of a waiting time between the reporting of two event triggered events.  - Indication of whether the event has to be reported at PDU Session termination.  - Notification Correlation Id for a subscription to an event. |
| 16 | QoSMonitoring | Indicates the support of QoS monitoring functionality and the report of packet delay monitoring. This feature requires the support of the EnhancedSubscriptionToNotification feature. |
| 17 | AuthorizationWithRequiredQoS | Indicates support of policy authorization for the AF session with required QoS. |
| 18 | TimeSensitiveNetworking | Indicates that the 5G System is integrated within the external network as a TSN bridge. |
| 19 | PCSCF-Restoration-Enhancement | This feature indicates support of P-CSCF Restoration Enhancement. It is used for the PCF and the P-CSCF to indicate if they support P-CSCF Restoration Enhancement. |
| 20 | CHEM | This feature indicates the support of Coverage and Handover Enhancements for Media (CHEM). |
| 21 | FLUS | This feature indicates the support of FLUS functionality as described in 3GPP TS 26.238 [51]. |
| 22 | EPSFallbackReport | This feature indicates the support of the report of EPS Fallback as defined in clauses 4.2.2.30, 4.2.3.29 and 4.2.5.15. |
| 23 | ATSSS | Indicates the support of the report of the multiple access types of a MA PDU session. |
| 24 | QoSHint | This feature indicates the support of specific QoS hint parameters as described in 3GPP TS 26.114 [30], clause 6.2.10. |
| 25 | ReallocationOfCredit | This feature indicates the support of notifications of reallocation of credits events. It requires the support of IMS\_SBI feature. |
| 26 | ES3XX | Extended Support for 3xx redirections. This feature indicates the support of redirection for any service operation, according to Stateless NF procedures as specified in clauses 6.5.3.2 and 6.5.3.3 of 3GPP TS 29.500 [5] and according to HTTP redirection principles for indirect communication, as specified in clause 6.10.9 of 3GPP TS 29.500 [5]. |
| 27 | DisableUENotification | Indicates the support of disabling QoS flow parameters signalling to the UE when the SMF is notified by the NG-RAN of changes in the fulfilled QoS situation. This feature requires that the AuthorizationWithRequiredQoS featute is also supported. |
| 28 | PatchCorrection | Indicates support of the correction to the PATCH method:  When this feature is not supported, the interoperability between a NF service consumer and the PCF can only be ensured when it is not required the update of the Individual Application Session Context resource. |
| 29 | MPSforDTS | Indicates support for MPS for DTS as described in clauses 4.2.2.12.2 and 4.2.3.12. |
| 30 | ApplicationDetectionEvents | This feature indicates the support of the subscription to notifications of the detection of the start and stop of an application's traffic. |
| 31 | TimeSensitiveCommunication | Indicates that the 5G System is integrated within the external network as a TSC user plane node to enable Time Sensitive Communication, Time Synchronization and Deterministic Networking. This feature requires that the TimeSensitiveNetworking feature is also supported. |
| 32 | ExposureToEAS | This feature indicates the support of the indication of direct event notification of QoS monitoring events from the UPF to the Local NEF or AF in 5GC. This indication requires that the QoSMonitoring feature is supported. |
| 33 | SatelliteBackhaul | Indicates the support of the report of the satellite or non-satellite backhaul category of the PDU session. |
| 34 | RoutingReqOutcome | Indicates the support of:  - the report of UP path change failures; and  - the indication of whether AF routing requirements are applied.  It requires the support of InfluenceOnTrafficRouting feature. |
| 35 | EASDiscovery | This feature indicates the support of EAS (re)discovery. |
| 36 | AltSerReqsWithIndQoS | Indicates the support of provisioning Alternative Service Requirements with individual QoS parameters. This feature requires that the AuthorizationWithRequiredQoS feature is also supported. |
| 37 | SimultConnectivity | This feature indicates the support of the indication of temporary simultaneous connectivity over source and target PSA at edge relocation. This indication requires that the InfluenceOnTrafficRouting feature is supported. |
| 38 | EASIPreplacement | This feature indicates the support of provisioning of EAS IP replacement info. This support requires that InfluenceOnTrafficRouting feature is also supported |
| 39 | AccNetChargId\_String | This feature indicates the support of long character strings as access network charging identifier. |
| 40 | WLAN\_Location | This feature indicates the support of the report of the WLAN location information received from the ePDG/EPC, if available. It is only applicable to EPS interworking scenarios as described in 3GPP TS 29.512 [8], Annex B. |
| 41 | AF\_latency | This feature indicates support for edge relocation considering user plane latency. |
| 42 | UEUnreachable | This feature indicates the support for the reporting of UE temporary unavailable. |
| 43 | AltQoSProfilesSupportReport | This feature indicates the support of the report of whether Alternative QoS parameters are supported by NG-RAN. This feature requires that AuthorizationWithRequiredQoS feature is also supported. |
| 44 | PacketDelayFailureReport | Indicates the support of packet delay failure report as part of QoS Monitoring procedures. This feature requires that QoSMonitoring feature is supported. |
| 45 | EnTSCAC | Indicates the support of extensions to TSCAC and the RAN feedback for BAT offset and adjusted periodicity.  This feature requires that the TimeSensitiveCommunication feature is also supported. |
| 46 | SignalingPathValidation | This feature indicates the support of the validation of the NF type that originates the Npcf\_PolicyAuthorization\_Create request. |
| 47 | ExtQoS | This feature indicates the support for the extensions to the QoS mechanisms. |
| 48 | CommonEASDNAI | This feature controls the support of the common EAS/DNAI selection. This feature requires that the InfluenceOnTrafficRouting feature is also supported. |
| 49 | SFC | This feature indicates support of Service Function Chaining functionality. |
| 50 | MultiMedia | This feature indicates the support of multi-modal or multimedia communication service. This feature acts as a basic functional block for extended reality (XR) and interactive media services. |
| 51 | EnSatBackhaulCatChg | This feature indicates the support also of the report of the dynamic satellite backhaul category of the PDU session. This feature requires the support of SatelliteBackhaul feature. |
| 52 | MTU\_Size | This feature indicates the support of the report of the MTU size of the device side port. This feature requires that the TimeSensitiveCommunication feature is also supported. |
| 53 | ExtraUEaddrReport | This feature indicates the support of the report of additional IP addresses or address ranges allocated for the given PDU session resulting from framed routes or IPv6 prefix delegation. |
| 54 | AuthorizationForMpsSignalling | This feature indicates support for use of the "mpsAction" attribute to signal that the UE's MPS subscription shall be checked by the PCF prior to enabling MPS for AF signalling. |
| 55 | ExposureToTSC | This feature indicates the support of the direct event notification of TSC management information from the UPF to the TSCTSF or TSN AF in 5GC. This feature requires that the TimeSensitiveCommunication feature is also supported. |
| 56 | URSPEnforcement | This feature indicates the support of awareness of URSP rule enforcement |
| 57 | AddFlowDescriptionInformation | This feature indicates support for use e.g. of additional flow description parameters, as the flow label and the IPSec SPI. |
| 58 | QoSTiming\_5G | This feature indicates the support of QoS timing information for the transfer and support of data transmission (e.g., AI/ML traffic transmission). |
| 59 | PDUSetHandling | This feature indicates the support of PDU Set handling. This feature may be used for eXtended Reality (XR) and interactive media services. |
| 60 | RTLatency | This feature indicates the support of Round-Trip latency. This feature may be used for eXtended Reality (XR) and interactive media services. |
| 61 | EnQoSMon | This feature indicates the support of enhanced QoS monitoring functionality, i.e. the report of the congestion information, and/or, the RTT delay over two QoS flows, and/or, the data rate information, and/or, the Packet Delay Variation monitoring.  This feature requires that the QoSMonitoring feature is supported. |
| 62 | PowerSaving | This feature indicates the support of UE Power Saving management in multi modal traffic as described in clause 4.2.2.42. |
| 63 | L4S | This feature indicates the support of the AF indication of ECN marking for L4S support. |

Editor's note: Whether and/how to indicate the support of end of burst indication, and provision the flow periodicity information within the Power Saving feature is FFS.

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