**3GPP TSG-CT WG3 Meeting #131 *C3-235729***

**Chicago, United States, 13 - 17 November, 2023 (Revision of C3-235705)**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.522** | **CR** | **1132** | **rev** | **2** | **Current version:** | **18.3.0** |  |
|  | | | | | | | | |
| *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:*** | Corrections to boolean type definitions | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NBI17 | | | | |  | ***Date:*** | | | 2023-10-30 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Some boolean type definitions in this TS missing several essential definitions, including missing false value definition, missing default value definition or even missing the overall values definition, Hence needs to correct related boolean type definitions in this TS. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Adding the missing values definitions for the related boolean types of TrafficInfluence API and TimeSyncExposure API.  Beside mirror, also contains other corrections. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Missing the essential boolean type definitions in TrafficInfluence API, and TimeSyncExposure API will arouse wrong implemenation and wrong deployments. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.4.3.3.2, 5.4.3.3.3, 5.4.3.3.5, 5.15.4.3.2, 5.15.4.3.6, 5.15.4.3.18 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Revision to C3-235705:  Reformatting and rewording the boolean type descriptions. | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

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

##### 5.4.3.3.2 Type: TrafficInfluSub

This type represents a traffic influence subscription. The same structure is used in the subscription request and subscription response.

Table 5.4.3.3.2-1: Definition of type TrafficInfluSub

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability  (NOTE 1) |
| afServiceId | string | O | 0..1 | Identifies a service on behalf of which the AF is issuing the request. |  |
| afAppId | string | O | 0..1 | Identifies an application.  (NOTE 3) |  |
| afTransId | string | O | 0..1 | Identifies an NEF Northbound interface transaction, generated by the AF. |  |
| appReloInd | boolean | O | 0..1 | Identifies whether an application can be relocated once a location of the application has been selected. Set to "true" if it can be relocated; otherwise set to "false". Default value is "false" if omitted. |  |
| dnn | Dnn | O | 0..1 | Identifies a DNN, a full DNN with both the Network Identifier and Operator Identifier, or a DNN with the Network Identifier only. |  |
| snssai | Snssai | O | 0..1 | Identifies an S-NSSAI. |  |
| externalGroupId | ExternalGroupId | O | 0..1 | Identifies a group of users.  (NOTE 2) (NOTE 6) |  |
| externalGroupIds | array(ExternalGroupId) | O | 2..N | List of external group identifiers associated with the subscriber.  (NOTE 2) (NOTE 6) (NOTE 7) | FinerGranUEs |
| extSubscCats | array(string) | O | 1..N | List of external categories associated with the subscriber.  (NOTE 8) | FinerGranUEs |
| anyUeInd | boolean | O | 0..1 | Identifies whether the AF request applies to any UE (i.e. all UEs). This attribute shall set to "true" if applicable for any UE, otherwise, set to "false".  (NOTE 2) |  |
| subscribedEvents | array(SubscribedEvent) | O | 1..N | Identifies the requirement to be notified of the event(s). |  |
| gpsi | Gpsi | O | 0..1 | Identifies a user.  (NOTE 2) |  |
| ipv4Addr | Ipv4Addr | O | 0..1 | Identifies the IPv4 address.  (NOTE 2) |  |
| ipDomain | string | O | 0..1 | The IPv4 address domain identifier.  The attribute may only be provided if the ipv4Addr attribute is present. |  |
| ipv6Addr | Ipv6Addr | O | 0..1 | Identifies the IPv6 address.  (NOTE 2) |  |
| macAddr | MacAddr48 | O | 0..1 | Identifies the MAC address. (NOTE 2) |  |
| dnaiChgType | DnaiChangeType | O | 0..1 | Identifies a type of notification regarding UP path management event. |  |
| notificationDestination | Link | C | 0..1 | Contains the Callback URL to receive the notification from the NEF.  It shall be present if the "subscribedEvents" is present. |  |
| requestTestNotification | boolean | O | 0..1 | Indicates whether the AF requests the NEF to send a test notification.  - Set to "true" by the AF to request the NEF to send a test notification as defined in clause 5.2.5.3 of 3GPP TS 29.122 [4].  - Set to "false" by the AF to not to request the NEF to send a test notification.  - Default value is "false" if omitted. | Notification\_test\_event |
| websockNotifConfig | WebsockNotifConfig | O | 0..1 | Configuration parameters to set up notification delivery over Websocket protocol. | Notification\_websocket |
| self | Link | C | 0..1 | Link to the created resource.  This parameter shall be supplied by the NEF in HTTP responses that include an object of TrafficInfluSub type |  |
| trafficFilters | array(FlowInfo) | O | 1..N | Identifies IP packet filters.  (NOTE 3) |  |
| ethTrafficFilters | array(EthFlowDescription) | O | 1..N | Identifies Ethernet packet filters.  (NOTE 3) |  |
| trafficRoutes | array(RouteToLocation) | O | 1..N | Identifies the N6 traffic routing requirement. (NOTE 9) |  |
| sfcIdDl | string | O | 0..1 | Reference to a pre-configured steering of user traffic to service function chain in downlink.  (NOTE 5) | SFC |
| sfcIdUl | string | O | 0..1 | Reference to a pre-configured steering of user traffic to service function chain in uplink.  (NOTE 5) | SFC |
| metadata | Metadata | C | 0..1 | Contains opaque information for the service functions in the N6-LAN that is provided by AF and transparently sent to UPF. May only provided when "sfcIdDl" and/or "sfcIdUl" are provided. | SFC |
| tfcCorrInd | boolean | O | 0..1 | Indication of traffic correlation.  May only be included when "externalGroupId" attribute was included within the TrafficInfluSub data type previously.  It is used to indicate that for the group of UEs, the targeted PDU sessions should be correlated by a common DNAI.  Set to "true" if it should be correlated; otherwise set to "false". Default value is "false" if omitted. (NOTE 4) (NOTE 10) |  |
| tfcCorreInfo | TrafficCorrelationInfo | O | 0..1 | Contains the information for traffic correlation. The "notifUri" and "notifCorrId" attributes are not applicable for "tfcCorreInfo" attribute. (NOTE 10) | CommonEASDNAI |
| tempValidities | array(TemporalValidity) | O | 1..N | Indicates the time interval(s) during which the AF request is to be applied. |  |
| validGeoZoneIds | array(string) | O | 1..N | Identifies a geographic zone that the AF request applies only to the traffic of UE(s) located in this specific zone.  This attribute is deprecated; the attribute "geoAreas" should be used instead. |  |
| geoAreas | array(GeographicalArea) | O | 1..N | Identifies geographical areas within which the AF request applies.  This attribute deprecates validGeoZoneIds attribute. |  |
| afAckInd | boolean | O | 0..1 | Identifies whether the AF acknowledgement of UP path event notification is expected.  - "true" indiates that the AF acknowledgement of UP path event notification is expected.  - "false" indicates that the AF acknowledgement of UP path event notification is not expected.  - Default value is "false" if omitted. | URLLC |
| addrPreserInd | boolean | O | 0..1 | Indicates whether UE IP address shallbe preserved.  - "true" indicates that the UE IP address shall be preserved.  - "false" indicates that the UE IP address shall not preserved.  - Default value is "false" if omitted. | URLLC |
| simConnInd | boolean | O | 0..1 | Indication of whether simultaneous connectivity shall be temporarily maintained for the source and target PSA.  - "true" indicates that the temporary simultaneous connectivity shall be kept.  - "false" indicates that the temporary simultaneous connectivity shall not be kept.  - Default value is "false" if omitted. | SimultConnectivity |
| simConnTerm | DurationSec | O | 0..1 | Indication of the minimum time interval to be considered for inactivity of the traffic routed via the source PSA during the edge re-location procedure.  It may be included when the "simConnInd" attribute is set to true. | SimultConnectivity |
| maxAllowedUpLat | Uinteger | O | 0..1 | Indicates the target user plane latency in units of milliseconds. The SMF may use this value to decide whether edge relocation is needed to ensure that the user plane latency does not exceed the value. | AF\_lantency |
| easIpReplaceInfos | array(EasIpReplacementInfo) | O | 1..N | Contains EAS IP replacement information. | EASIPreplacement |
| easRedisInd | boolean | O | 0..1 | Indicates whether the EAS rediscovery is required for the application.  - "true" indicates that the EAS rediscovery is required for the application.  - "false" indicates that the EAS rediscovery is not required for the application.  - Default value is "false" if omitted.  The indication shall be invalid after it was applied unless it is provided again. | EASDiscovery |
| eventReq | ReportingInformation | O | 0..1 | Indicates the event reporting requirements.  This attribute may be provided if the "EDGEAPP" feature is supported and the "subscribedEvents" attribute is present. | EDGEAPP |
| eventReports | array(EventNotification) | C | 1..N | Represents user plane path management event report(s).  This attribute shall be present in an HTTP POST response if the immediate reporting indication in the "immRep" attribute within the "eventReq" attribute is set to true and the "subscribedEvents" was present in the corresponding HTTP POST request and the report(s) are available.  This attribute may also be present in an HTTP PUT or PATCH response when the report(s) are available. | EDGEAPP |
| candDnaiInd | boolean | O | 0..1 | Indication of reporting candidate DNAI(s). If it is included and set to "true", the candidate DNAI(s) for the PDU session need to be reported. Otherwise set to "false" or omitted. | CommonEASDNAI |
| suppFeat | SupportedFeatures | C | 0..1 | Indicates the list of Supported features used as described in clause 5.4.4.  This attribute shall be provided in the POST request and in the response of successful resource creation. |  |
| NOTE 1: Properties marked with a feature as defined in clause 5.4.4 are applicable as described in clause 5.2.7 of 3GPP TS 29.122 [4]. If no feature is indicated, the related property applies for all the features.  NOTE 2: One of individual UE identifier (i.e. "gpsi", "macAddr", "ipv4Addr" or "ipv6Addr"), External Group Identifier (i.e. "externalGroupId" or "externalGroupIds" (is included when FinerGranUEs feature is supported)) or any UE indication "anyUeInd" shall be included.  NOTE 3: One of "afAppId", "trafficFilters" or "ethTrafficFilters" shall be included.  NOTE 4: The indication of traffic correlation shall be provided only when the AF requires that all the PDU sessions related to the 5G VN group member UEs should be correlated by a common DNAI in the user plane for the traffic as described in 3GPP TS 23.501 [3], clause 5.6.7.1 and clause 5.29.  NOTE 5: When the SFC feature is supported, for the purpose of influencing service function chaining, at least one attribute shall be present.  NOTE 6: The attributes "externalGroupId" and "externalGroupIds" are mutually exclusive attributes.  NOTE 7: The AF request applies to the UE(s) that belong to all the External Group Identifiers indicated by the attribute " externalGroupIds", when included.  NOTE 8: The AF request applies to the UE(s) that belong to all the External Subscriber Categories indicated by the attribute " extSubscCats", which is included only if either "externalGroupIds" attribute is included or "externalGroupId" is included or "anyUeInd" attribute is included.  NOTE 9: When only one DNAI is included, and the Indication of traffic correlation within the "tfcCorrInd" attribute is available or the "correType" attribute of the "tfcCorreInfo" includes the value "COMMON\_DNAI", the DNAI is used as common DNAI for UEs identified by AF request.  NOTE 10: The "tfcCorrInd" attribute and the "tfcCorreInfo" attribute are mutually exclusive. | | | | | |

\*\*\* 2nd Change \*\*\*

##### 5.4.3.3.3 Type: TrafficInfluSubPatch

This type represents a subscription of traffic influence parameters provided by the AF to the NEF. The structure is used for HTTP PATCH request.

Table 5.4.3.3.3-1: Definition of type TrafficInfluSubPatch

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| appReloInd | boolean | O | 0..1 | Identifies whether an application can be relocated once a location of the application has been selected.  (NOTE 1) |  |
| trafficFilters | array(FlowInfo) | O | 1..N | Identifies IP packet filters. |  |
| ethTrafficFilters | array(EthFlowDescription) | O | 1..N | Identifies Ethernet packet filters. |  |
| trafficRoutes | array(RouteToLocation) | O | 1..N | Identifies the N6 traffic routing requirement.  (NOTE 1) |  |
| sfcIdDl | string | O | 0..1 | Reference to a pre-configured steering of user traffic to service function chain in downlink. | SFC |
| sfcIdUl | string | O | 0..1 | Reference to a pre-configured steering of user traffic to service function chain in uplink. | SFC |
| metadata | Metadata | O | 0..1 | Contains opaque information for the service functions in the N6-LAN that is provided by AF and transparently sent to UPF. | SFC |
| tfcCorrInd | boolean | O | 0..1 | Indication of traffic correlation.  May only be included when "externalGroupId" attribute was included within the TrafficInfluSub data type previously.  It is used to indicate that for the group of UEs, the targeted PDU sessions should be correlated by a common DNAI. (NOTE 2) |  |
| tfcCorreInfo | TrafficCorrelationInfo | O | 0..1 | Contains the information for traffic correlation. The "notifUri" and "notifCorrId" attributes are not applicable for "tfcCorreInfo" attribute. (NOTE 2) | CommonEASDNAI |
| tempValidities | array(TemporalValidity) | O | 1..N | Indicates the time interval(s) during which the AF request is to be applied.  (NOTE 1) |  |
| validGeoZoneIds | array(string) | O | 1..N | Identifies a geographic zone that the AF request applies only to the traffic of UE(s) located in this specific zone.  (NOTE 1)  This attribute is deprecated; the attribute "geoAreas" should be used instead. |  |
| geoAreas | array(GeographicalArea) | O | 1..N | Identifies geographical areas within which the AF request applies. (NOTE 1)  This attribute deprecates validGeoZoneIds attribute. |  |
| afAckInd | boolean | O | 0..1 | Identifies whether the AF acknowledgement of UP path event notification is expected.  - "true" indicates that the AF acknowledgement of UP path event notification is expected.  - "false" indicates that the AF acknowledgement of UP path event notification is not expected.  (NOTE 3) | URLLC |
| addrPreserInd | boolean | O | 0..1 | Indicates whether UE IP address shall be preserved.  - "true" indicates that the UE IP address shall be preserved.  - "false" indicates that the UE IP address shall not be preserved.  (NOTE 3) | URLLC |
| simConnInd | boolean | O | 0..1 | Indication of whether simultaneous connectivity shall be temporarily maintained for the source and target PSA.  - "true" indicates that the temporary simultaneous connectivity shall be kept.  - "false" indicates that the temporary simultaneous connectivity shall not be kept.  - Default value is "false" if omitted and has not been previously provided. | SimultConnectivity |
| simConnTerm | DurationSec | O | 0..1 | Indication of the minimum time interval to be considered for inactivity of the traffic routed via the source PSA during the edge re-location procedure. | SimultConnectivity |
| maxAllowedUpLat | UintegerRm | O | 0..1 | Indicates the target user plane latency in units of milliseconds. The SMF may use this value to decide whether edge relocation is needed to ensure that the user plane latency does not exceed the value. | AF\_latency |
| easIpReplaceInfos | array(EasIpReplacementInfo) | O | 1..N | Contains EAS IP replacement information. | EASIPreplacement |
| easRedisInd | boolean | O | 0..1 | Indicates whether the EAS rediscovery is required for the application.  - "true" indicates that the EAS rediscovery is required for the application.  - "false" indicates that the EAS rediscovery is not required for the application.  - Defalult value is "false" if omitted and has not been previously provided.  The indication shall be invalid after it was applied unless it is provided again. | EASDiscovery |
| notificationDestination | Link | O | 0..1 | Contains the Callback URL to receive the notification from the NEF. |  |
| eventReq | ReportingInformation | O | 0..1 | Indicates the event reporting requirements.  This attribute may be provided if the "EDGEAPP" feature is supported. | EDGEAPP |
| NOTE 1: The value of the property shall be set to NULL for removal.  NOTE 2: The "tfcCorrInd" attribute and the "tfcCorreInfo" attribute are mutually exclusive.  NOTE 3: The value of the property shall be set to NULL for removal, and in that case, the default value "false" applies. | | | | | |

\*\*\* 3rd Change \*\*\*

##### 5.4.3.3.5 Type: AfResultInfo

Table 5.4.3.3.5-1: Definition of type AfResultInfo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| afStatus | AfResultStatus | M | 1 | Identifies the result of the application relocation. |  |
| trafficRoute | RouteToLocation | O | 0..1 | Identifies the N6 traffic routing information associated to the target DNAI.  May only be present if the "afStatus" sets to "SUCCESS". |  |
| upBuffInd | boolean | O | 0..1 | Indicates whether buffering of uplink traffic to the target DNAI is needed.  - "true" indicates that buffering of uplink traffic to the target DNAI is needed.  - "false" indicates that buffering of uplink traffic to the target DNAI is not needed.  - Default value is "false" if omitted.  This attribute may only be present if the "afStatus" is set to "SUCCESS". | ULBuffering |
| easIpReplaceInfos | array(EasIpReplacementInfo) | O | 1..N | Contains EAS IP replacement information. | EASIPreplacement |

\*\*\* 4th Change \*\*\*

##### 5.15.4.3.2 Type: TimeSyncExposureSubsc

Table 5.15.4.3.2-1: Definition of type TimeSyncExposureSubsc

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| exterGroupId | ExternalGroupId | C | 0..1 | Identifies a group of UE(s) for which the time synchronization capabilities is requested. (NOTE 1) |  |
| gpsis | array(Gpsi) | C | 1..N | Contains a list of UE for which the time synchronization capabilities is requested. (NOTE 1) |  |
| anyUeInd | boolean | C | 0..1 | Identifies whether the AF request applies to any UE (i.e. all UEs). This attribute shall set to "true" if applicable for any UE, otherwise, set to "false". (NOTE 1) (NOTE 2) |  |
| notifMethod | NotificationMethod | O | 0..1 | If "notifMethod" is not supplied, the default value "ON\_EVENT\_DETECTION" applies. |  |
| dnn | Dnn | C | 0..1 | Identifies a DNN, a full DNN with both the Network Identifier and Operator Identifier, or a DNN with the Network Identifier only. (NOTE 2) |  |
| snssai | Snssai | C | 0..1 | Identifies an S-NSSAI. (NOTE 2) |  |
| afServiceId | string | O | 0..1 | Identifies a service on behalf of which the AF is issuing the request. |  |
| subscribedEvents | array(SubscribedEvent) | O | 1..N | Identifies the requirement to be notified of the event(s). |  |
| eventFilters | array(EventFilter) | O | 1..N | Contains the filter conditions to match for notifying the event(s) of time synchronization capabilities for a list of UE(s). |  |
| subsNotifUri | Uri | M | 1 | Notification URI for time sensitive capability reporting. |  |
| subsNotifId | string | M | 1 | Notification Correlation ID assigned by the NF service consumer. |  |
| maxReportNbr | Uinteger | O | 0..1 | If omitted, there is no limit. |  |
| expiry | DateTime | C | 0..1 | This attribute indicates the expiry time of the subscription, after which the NEF shall not send any event notifications and the subscription becomes invalid. It may be included in an event subscription request and may be included in an event subscription response based on operator policies. If an expiry time was included in the request, then the expiry time returned in the response should be less than or equal to that value. If the expiry time is not included in the response, the NF service consumer shall not associate an expiry time for the subscription. |  |
| repPeriod | DurationSec | C | 0..1 | Is supplied for notification Method "periodic". |  |
| requestTestNotification | boolean | O | 0..1 | Indicates whether the AF requests the NEF to send a test notification.  - Set to "true" by the AF to request the NEF to send a test notification as defined in clause 5.2.5.3 of 3GPP TS 29.122 [4].  - Set to "false" by the AF not to request the NEF to send a test notification.  - Default value is "false" if omitted. | Notification\_test\_event |
| websockNotifConfig | WebsockNotifConfig | O | 0..1 | Configuration parameters to set up notification delivery over Websocket protocol. | Notification\_websocket |
| suppFeat | SupportedFeatures | C | 0..1 | Represents the features supported by the NF service consumer. This parameter shall be supplied by the NF service consumer in the POST request and the response that requested the creation of an Individual Time Synchronization Subscription resource. |  |
| NOTE 1: Only one of the properties "gpsis", "anyUeInd" or "externalGroupId" shall be included.  NOTE 2 The properties of "anyUeInd" may be included only when the properties of "dnn" and "snssai" are included. | | | | | |

\*\*\* 5th Change \*\*\*

##### 5.15.4.3.6 Type: TimeSyncExposureConfig

Table 5.15.4.3.6-1: Definition of type TimeSyncExposureConfig

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| upNodeId | Uint64 | M | 1 | Identifies the applicable NW-TT. Contains a TSC user plane node Id. If integrated with TSN, the user plane node Id is a bridge Id defined in IEEE 802.1Q [41] clause 14.2.5. |  |
| reqPtpIns | PtpInstance | M | 1 | Identifies the PtP instance configuration and activation requested by the AF. |  |
| gmEnable | boolean | C | 0..1 | Indicates whether that the AF requests the 5GS to act as a grandmaster for PTP or gPTP.  - "true" indicates that the AF requests the 5GS to act as a grandmaster for PTP or gPTP.  - "false" indicates that the AF does not request the 5GS to act as a grandmaster for PTP or gPTP.  - Default value is "false" if the attribute is not present. |  |
| gmPrio | Uinteger | C | 0..1 | Indicates a priority used as defaultDS.priority1 when generating Announce message when 5GS acts as (g)PTP GM. It may be present if the "gmEnable" is set to true. |  |
| timeDom | Uinteger | M | 1 | Indicate the (g)PTP domain that the (TSN)AF is located in. |  |
| timeSyncErrBdgt | Uinteger | O | 0..1 | Indicates the time synchronization error budget for the time synchronization service in units of nanoseconds.  Minimum = 1. |  |
| tempValidity | TemporalValidity | O | 0..1 | Indicates the time period when the time synchronization service for a PTP instance is active. |  |
| configNotifUri | Uri | M | 1 | Notification URI for configuration state reporting. |  |
| configNotifId | string | M | 1 | Notification Correlation ID assigned by the NF service consumer. |  |
| coverageArea | SpatialValidityCond | O | 0..1 | Time Synchronization Coverage Area. (NOTE) | CoverageArea |
| timeSyncStatusParam | array(TimeSyncStatusParam) | O | 1..N | Contains clock quality detail level and clock quality acceptance criteria parameters. |  |
| NOTE: The "trackingAreaList" attribute within the "coverageArea" attribute is not applicable for the untrusted AF. | | | | | |

\*\*\* 6th Change \*\*\*

##### 5.15.4.3.18 Type: ConfigForPort

Table 5.15.4.3.18-1: Definition of type ConfigForPort

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| gpsi | Gpsi | C | 0..1 | Identifies the UE/DS-TT which the parameters below apply. |  |
| n6Ind | boolean | C | 0..1 | Indicates whether the N6 termination which the parameters below apply.  - "true" indicates that the N6 termination which the parameters below apply.  - "false" indicates that the N6 termination which the parameters below do not apply.  - Default value is "false" if omitted. |  |
| ptpEnable | boolean | O | 0..1 | This is used to set the portDS.portEnable.  - "true" indicates to set the portDS.portEnable.  - "false" indicates not to set the portDS.portEnable.  - Default value is "false" if omitted, the default value as described in the PTP Profile is used. |  |
| logSyncInter | integer | O | 0..1 | Specifies the mean time interval between successive Sync messages. This is applicable for IEEE Std 1588 [45] Boundary Clock or IEEE Std 802.1AS [46] operation. If omitted, the default value as described in the PTP Profile is used. |  |
| logSyncInterInd | boolean | O | 0..1 | Indicates how the value of the "logSyncInter" attribute is to be used.  - When set to "false", the value of "logSyncInter" attribute is used to set the initialLogSyncInterval as described in IEEE Std 802.1AS [46].  - When set to "true", the value of "logSyncInter" attribute is used to set the mgtSettableLogSyncInterval as described in IEEE Std 802.1AS [46].  - If omitted, the default value as described in the IEEE Std 802.1AS [46] is used. |  |
| logAnnouInter | integer | O | 0..1 | Specifies the mean time interval between successive Announce messages. This is applicable for IEEE Std 1588 [45] Boundary Clock or IEEE Std 802.1AS [46] operation. If omitted, the default value as described in the PTP Profile is used. |  |
| logAnnouInterInd | boolean | O | 0..1 | Indicates how the value of the "logSyncInter" attribute is to be used.  - When set to "false", the value of "logAnnouInter" attribute is used to set the initialLogAnnounceInterval as described in IEEE 802.1AS [46].  - When set to "true", the value of "logAnnouInter" attribute is used to set the mgtSettableLogAnnounceInterval as described in IEEE Std 802.1AS [46].  - If omitted, the default value as described in the IEEE Std 802.1AS [46] is used. |  |
| NOTE: Either "gpsi" or "n6Ind" attribute shall be included. | | | | | |

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